MULTIPLE NARRATIVES, MULTIPLE VIEWS: OBSERVING ARCHIVAL DESCRIPTION

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I, Jennifer Jane Bunn, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis

ABSTRACT

This thesis takes a grounded theory approach in an attempt to seek, articulate and communicate a deeper understanding of the practice known as archival description. In so doing, it also seeks to allow readers to experience for themselves the process through which this thesis took shape, the research journey through which emerged both the questions and the answers. A more detailed exposition of the stages within this process is given in chapter three, which thereby acts as one route map to the whole. Another such map is provided here, in the following brief summary.

Undertaking this journey, the questions that emerged included; what does autonomy mean, how is it possible to communicate, to bridge the gap between the separateness of individuals, and ultimately, how is it possible to have separateness without being separate? Then again, the answers that evolved concurrently seemed to lie in using a cybernetic perspective, and employing the concept of autopoiesis or self-production, whereby it is thought possible to become separate without being so.

Further, as a result of the questions and answers explored above, a thesis took shape, that practicing archival description is a point of view, one from which it is difficult to lose sight of the observing within the observation, that is to say it is a point of view about how we look at the world and form a point of view in respect of it, about how we know what we know. It is this thesis which will be laid out in later chapters of this work, but first will follow introductions to both the substantive area of interest (archival description) and the approach taken (grounded theory).

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To Jessie Campbell
who gave me the job that started me down this road
and Jess Lister
who gave me the courage to really explore it.

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LIST OF ABBREVIATIONS

EAD	Encoded Archival Description
EAC	Encoded Archival Context
ISAAR(CPF)	International Standard Archival Authority Record for Corporate Bodies, Persons and Families)
ISAD(G)	General International Standard Archival Description
ISDF	International Standard for Describing Functions
ISDIAH	International Standard for Describing Institutions with Archival Holdings
MAD	Manual for Archival Description
MARC-AMC	Machine Readable Catalogue for Archives and Manuscripts Control
MIT	Massachusetts Institute of Technology
MLA	Modern Language Association
NISTF	National Information Systems Task Force
PRO	Public Record Office (now The National Archives)
RAD	Rules for Archival Description
SAA	Society of American Archivists
TNA	The National Archives (United Kingdom)

EDITORIAL CONVENTIONS

The citation system used in this thesis is MLA (Modern Language Association) Style.

CHAPTER ONE – ARCHIVAL DESCRIPTION

At the beginning of the twenty first century, the practice known as archival description suffers from a lack of definition, which causes difficulties for those undertaking it in the face of a rapidly changing environment. To rectify this situation a deeper understanding of the practice must be sought, articulated and communicated.

The premise that archival description is suffering from a lack of definition may, at first sight, appear unlikely. Certainly, there is no shortage of definitions for the practice. For example, according to the second edition of the *General International Standard Archival Description* (hereafter *ISAD(G)*), it is;

> The creation of an accurate representation of a unit of description and its component parts, if any, by capturing, analyzing, organizing and recording information that serves to identify, manage, locate and explain archival materials and the context and records systems which produced it. (ICA Committee on Descriptive Standards 10)

Then again, other definitions of archival description may be found in "Origin and Development of the Concept of Archival Description", in which Luciana Duranti quotes definitions, which variously define archival description as; 'the process of establishing intellectual control over holdings through the preparation of finding aids', 'the process of capturing, collating, analyzing, and organizing any information that serves to identify, manage, locate, and interpret the holdings of archival institutions and explain the context and records systems from which those holdings were selected' and 'the process of capturing, collating, analyzing, controlling, exchanging, and providing access to information about 1) the origin, context, and provenance of different sets of records, 2) their filing structure, 3) their form and content, 4) their relationship with other records, and 5) the ways in which they can be found and used' (47-48).

In this article, Duranti makes no attempt at a definition herself, but rather addresses the question of 'Has description always been a major function in the processing of archival material?' (48). Her answer to this question is in the negative, rather she states that, instead, archival description 'has been one of the means used to accomplish the only two permanent archival functions', which she gives as '(1) preservation (physical, moral and intellectual) and (2) communication of archival documents' (52). Furthermore it is in this conclusion that she sees 'the reason why there is no universally recognized conceptualization of archival description, no steady progress in its use, and not even linear development in its application' (52-53). The exact logic behind this causal link asserted by Duranti is not entirely clear, but could it be that there is no universally recognised conceptualisation of archival description, not because it is a means to an end, but rather, because that is how it has been treated and considered? Either way, Duranti would appear to perceive a similar lack of definition to that perceived by this thesis. This thesis, however, will place the emphasis less on what it is archivists are trying to do when they undertake archival description - that is on archival description as a means to an end - and more on archival description as the end in itself.

Additional evidence to support the idea that there is a lack of definition surrounding archival description can be found, for example, in the way in which Chris Hurley, one of the most vocal and visible recent thinkers on archival description, has stated that 'The purpose and basis of description remains unclear' (Parallel Provenance 6). Then again, there is the way that archival description remains very much a live issue within the international archival community. For example, recent articles on the subject have focused on the arrangement of personal papers (Meehan, Rethinking Original Order 27-44; Douglas and MacNeil 25-39), parallels between archival arrangement and textual criticism (MacNeil, Archivalterity 1-24; MacNeil, Picking Our Text 264-278) and ways of making the process of archival description more transparent (Meehan, Making the Leap 72-90). There has also been extensive discussion within the United States of America of an approach to archival description known as 'More

Product, Less Process' (Van Ness 129-145; Greene 175-203; Greene and Meissner 208-263).

LOSING DEFINITION

Given then that archival description currently seems to lack definition, is it also the case that it has always lacked definition or, if not, can a point be found at which it can be seen to have started to lose some previous definition. For the researcher personally, the latter is the case, and archival description has lost definition. This loss can be traced back to the early years of the twenty first century. At that time the researcher's work at The National Archives (in the United Kingdom) forced her to consider some of the practical problems involved with cataloguing websites and born digital records. The latter, in particular, challenged the boundaries with which she had previously been able to define archival description for herself. For it was brought clearly into focus that archival description was not a practice solely undertaken by archivists within the confines of the archival institution. Rather, everyone giving a file a name when they saved it, or creating a folder structure in which to organise the files on their computer, was potentially creating the archival description of the future.[1] Indeed such creation was also being carried out automatically every time the computer recorded the date a file was last updated, or the place on the hard disk where it was located. The horizon became infinite and it was this feeling of being lost in the open that fuelled the desire to undertake the project of which this thesis is the culmination.

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[1] Of course, it could be argued that those naming a paper file or instigating a paper filing system were doing the same, but in the case of born digital records, there seemed to be even less input by the archivist. Archival description seemed to become more a process of managing the transfer of metadata, rather than producing something new (even if in reality the something new had always been recycled from the descriptions and structures of the original creators).

Then again, looking at the profession more widely, it appeared that there had also been a point at which archival description started to lose its definition. Or at least, there seemed to be a point, in the 1970s and 1980s, at which the definition of archival description became a concern. For, as Duranti notes in the article mentioned above, 'the issue of what the concept of archival description involves was non-existent until the 1980s, and [...] the term was not even defined until the 1970s' (Origin and Development 47).

The perception of a need to bring archival description into sharper definition dates back to the same period at which automation, that is the introduction of the computer, came to the fore. For example, it was in 1977 that the Council of the Society of American Archivists established a working group to investigate the implications of, and opportunities offered to the profession by, early attempts to create national information systems based on new database technologies. This working group became known as NISTF (National Information Systems Task Force) and it was later responsible for the development of MARC-AMC (Machine Readable Catalogue for Archives and Manuscript Control), an encoding schema which allowed for the inclusion of archival description within the large bibliographic databases being developed in the United States at the time (Sahli). Then again, as the 1980s progressed, more and more individual archival institutions started to employ the new technologies of the digital age to their own descriptive practice.[2] Is it the digital then that is the catalyst for archival description losing its definition? This question will not be addressed directly, since it lies outside the present scope, but it remains very much in the background, for example, in the shift from paper to digital archival description alluded to in the title of this work.

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[2] Articles reporting these efforts began to appear in United Kingdom archival journals in the late 1980s. See, for example, C M Woolgar reporting on 'The Wellington papers database' in a 1988 issue of the *Journal of the Society of Archivists* (1-20).

More certain however, is that the move towards automation had a corollary in the move towards standardization. It was quickly recognized that, 'Descriptive standards development, implementation, and maintenance are essential if archivists and archives are to be effective in making their holdings available and in taking advantage of the opportunities for automation' (Dryden and Haworth 14). As Duff and Harris have since pointed out, when writing on the subject of archival description and its standardization, 'early twenty-first-century technological realities make it impossible to build a complex collective project without standards' (283).

Standardization has then, with regards to archival description, been a major project over the last twenty to thirty years. Is this just the corollary of the move towards automation, or is it possible to see it also as an expression of something larger? Duff and Harris, for example, add that;

> The standardization of archival description, we would argue, must be seen as part of a more generalized push for standardization - in the view of some analysts, a late modernist endeavour to find order and sanity in increasingly chaotic tumblings of reality. (281)

Could then, the loss of definition with regards to archival description be merely one manifestation of a wider loss of 'order and sanity' in an 'increasingly chaotic' world? Again, this question lies outside the scope of this thesis, which starts from the premise that there is a lack of definition and does not address in any detail the issue of how or why it came about.

STANDARDIZATION

The major project that is the standardization of archival description does, however, require further attention, since the starting premise may seem to be brought into doubt in the light of the fact that, just as there are many definitions

for archival description, there are also now many standards for it. Some of these are national in scope and others international.[3] Again though, it is this very proliferation that serves, to some extent, as evidence of the very lack of definition being asserted.

 For example, on the international level, two distinct suites of relevant standards may be discerned. The first of these contains *ISAD(G) (General International Standard Archival Description), ISAAR(CPF) (International Standard Archival Authority Record for Corporate Bodies, Persons and Families), ISDF (International Standard for Describing Functions)* and *ISDIAH (International Standard for Describing Institutions with Archival Holdings)* (ICA Committee on Descriptive Standards, *ISAD(G)*; ICA Committee on Descriptive Standards, *ISAAR(CPF)*; ICA Committee on Best Practices and Standards, *ISDF*; ICA Committee on Best Practices and Standards, *ISDIAH*). The second includes the various parts of *ISO 23081 Information and Documentation –Records Management Processes – Metadata for Records* (International Standards Organisation).

The existence of these two distinct suites of international standards is mentioned here to introduce the idea that further evidence for the current lack of definition can be found in the way in which, as Duff and Harris put it; 'Disagreement has issued in the emergence of two dominant approaches - and concomitant descriptive architectures - to capturing and presenting information about records' (266). The first of these approaches commonly traces its origins back to nineteenth century Europe and is associated with a way of describing which developed at about the same time in about the same place and will be termed

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[3] It lies outside the scope of this project to provide an account of the development of these standards, or to go into great detail about what each standard entails. Those who are interested in discovering more are referred to the standards themselves; e.g. for the United Kingdom, Cook and Procter's *Manual of Archival Description*, and also to articles about standards development, such as those by Michael Cook (Description Standards 50-57), Kent Haworth (The Development of Descriptive Standards 75-90) and Wendy Duff (Discovering Common Missions 227-47).

here fonds based archival description.[4] The second also traces its origins back to the same roots, but is associated with the series system, a way of describing which developed in Australia in the 1960s.[5]

The development of two different suites of standards has been one way of managing the differences underpinning the emergence of the two approaches outlined above. These differences came to the fore at the XIIth International Congress on Archives held in September 1992. At this event an open forum on the results to date of the International Council on Archives' efforts to standardize archival description was held. These results consisted of a Statement of Principles and the draft of what was to become *ISAD(G)*. The following account of that forum is taken from a history of the International Council of Archive's Committee on Descriptive Standards;

> There was great interest as the room set aside for the forum proved to be too small to accommodate all. There was opposition to some of the principles, from the United States and the UK but mainly from Australia. In particular that of the concept of the fonds and the departure point of application of the standard of description taking place after arrangement and after the archives has taken custody of the material. Right in the middle of the heated discussion, all power in the building went out due to a raging thunderstorm over Montreal and the room went totally dark. This cooled the discussion down somewhat. The end result was that a member from Australia, Chris Hurley, was added to the Commission to represent the divergent views. (ICA Committee on Descriptive Standards, History of ICA/CDS)

Agreement remained elusive however, and the following year, as Hurley notes, debate about the Statement of Principles 'was discontinued' (Parallel

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[4] See pages 22-24 for a more detailed exposition of this way of doing archival description.

[5] See pages 25-27 for a more detailed exposition of this way of doing archival description

Provenance 6). It is for this reason that he believes 'there is no unifying elaboration of purpose upon which different implementation strategies can be based' (Parallel Provenance 6). The disagreement then, was, to his mind, 'not about the merits of different methods for achieving the same purpose', but 'about differences of purpose' (The Making and Keeping of Records (1) 62).

Perhaps then it is to a failure to deal with these 'differences of purpose', that the current lack of definition with regards to archival description can also be traced? And yet, how can this be, if, as is asserted above, the approaches on either side of these differences can be traced back to the same roots? What are these roots and how is it that two different approaches seem to have sprung from the same spot?

ROOTING OUT THE ROOTS

Few histories of descriptive practice have been attempted to date, which is a state of affairs that ought to be rectified. One brief attempt was made by Luciana Duranti, in which she traced the practice back to 'a repertory of documents on clay tablets found in a private archives of Nuzi (Yorgan Tepe) in Assyria and dated 1500 BC' (Origin and Development 48). It is not the aim of this thesis to attempt such a history, but if it was, a more recent starting point could be found in the formulation of an idea, an occurrence which took place in nineteenth century Europe. This starting point suggests itself, since it is to this point to which both of the dominant approaches mentioned above trace their origins. This idea shall be referred to, within this thesis as, provenance.

Many individuals from many present day European nations, including Italy, Germany, France, the Netherlands and Denmark, are seen as having played a part in formulating this idea (Duranti, Origin and Development 50; Horsman, Taming the Elephant 53). Consequently, the degree to, and manner in which, that idea was articulated, varied. The articulation which has received the most

attention however, is the one which is most commonly available and widely translated into English and other languages, that is the so-called Dutch Manual of Muller, Feith and Fruin, which was published in the Netherlands in 1898.[6]

This volume has come to be widely regarded as the starting point for archival theory. Thus, John Ridener writes in his recent history of archival theory;

> The basis for most archival theory in North America and beyond is Handleiding voor het Ordenen en Beschrijven van Archieven, (Manual for the Arrangement and Description of Archives), or the Dutch Manual, as it would come to be known (21).

And, then again, Terry Cook, in examining the idea that 'What is past is prologue' chooses the publication of the Dutch Manual as the starting point for his 'History of Archival Ideas since 1898' (17-63).

THE DUTCH MANUAL

The Dutch Manual contains a series of rules to govern the arrangement and description of archives. It outlines a system of arranging and describing archives under which archival collections were to be kept separate and their individual internal arrangements were to be 'based on the original organization of the archival collection, which in the main corresponds to the organization of the administrative body that produced it' (Muller, Feith and Fruin 52).[7] In outlining

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[6] An English translation of the Dutch Manual first became available in 1940. It was translated earlier into other languages such as German (1905), Italian (1908) and French (1910).

[7] Archival collection is the term used in the 1940 English translation for the word 'archief' which is defined as follows (again this being from the English translation) 'the whole of the written documents, drawings and printed matter, officially received or produced by an administrative body or one of its officials, in so far as these documents were intended to remain in the custody of that body or of that official' (Muller, Feith and Fruin 13).

this system and laying down these rules, the articulation of the idea of provenance that the Dutch Manual provides is, therefore, an articulation in the form of an application; an implementation of the idea, rather than the idea itself.

This last point is highlighted by Eric Ketelaar's article "Archival theory and the Dutch Manual" in which he contrasts the normative approach taken by the authors of the Dutch Manual with that of their contemporary, Van Riemsdijk, who worked more to develop the ideas. Ketelaar seeks to demonstrate the debt the Manual owed to Van Riemsdijk and quotes from that man's work as follows; '"The interconnection of the documents reveals their nature and mutual context much better than any order which an archivist may introduce later"' (qtd in Ketelaar 34). Here then is another contemporaneous articulation of the idea formulated at this time, but it is contained within a work *De griffie van Hare Hoog Mogenden. Bijdrage tot de kennis van het archief van de Staten-Generaal der Vereenigde Nederlanden* unfamiliar to the traditional canon of archival literature. Thus, as Ketelaar indicates 'instead of archival theory', the legacy of the Dutch Manual should perhaps be seen more as the rapid and large scale adoption of 'binding directives' for a certain practice, known at the time as arrangement and description (Ketelaar 35).

For example, at the first International Conference of Archivists and Librarians held in Brussels in 1910, a number of resolutions were passed, including the following;

> Le principe de provenance est le meilleur système à adopter pour classer et inventorier un fonds d'archives, non seulement au point du vue du classement logique des pièces mais aussi dans l'intérêt bien compris des études historiques.[8] (Cuvelier and Stanier 635)

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[8] The principle of provenance is the best system to adopt for classifying and cataloguing an archival fonds, not only from the point of view of the logical ordering of items but also in the best interest of historical studies (author's translation).

And, in the debate preceding the passing of this resolution, M L Pagliai from Florence is reported as speaking as follows;

> Qu'il me soit permis de declarer ici que c'est avec joie que les archivistes Italiéns ont accueilli le *Handleiding* de nos collègues hollandaisé, traduit en italien. Ils sont presque unanimement d'accord pour proclamer que le principe de provenance [...] a toujours été considéré par eux comme la seule façon scientifique de classer des fonds d'archives.[9] (Cuvelier and Stanier 634-35)

Le meilleur système or *la seule façon scientifique* here equated with *Le principe de provenance* was, what has been termed here, fonds based archival description, which involves arranging and describing archives broadly in line with the rules laid down by the Dutch Manual. The way in which the conference seemed to equate this method with the principle of provenance, provides further evidence for the suggestion made earlier that what the Dutch Manual articulates is not so much the idea as an application of the idea. It is however, the idea that is the root and the idea that is under examination at this time.

THE PRINCIPLE OF PROVENANCE

Getting to the idea however, can be difficult. Archivists from across the world still consider themselves to be bound by something called the principle of provenance, but what do they mean by the principle of provenance? Asked to

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[9] Allow me to state here that it is with joy that Italian archivists greeted the 'Handleiding' of our Dutch colleagues, translated into Italian. They are in almost unanimous agreement in proclaiming that the principle of provenance [...] has always been regarded by them as the only scientific way to classify archival fonds (author's translation).

state it, it is unlikely that they would today speak in terms of 'le meilleur système à adopter pour classer et inventorier un fonds d'archives' (Cuvelier and Stanier 635). Rather they would be more likely to speak as follows;

> The **principle of provenance** or the ***respect des fonds*** dictates that records of different origins (provenance) be kept separate to preserve their context. ("Provenance")

Then again, some of them might instead comment that;

> The principle of provenance has two components: records of the same provenance should not be mixed with those of a different provenance, and the archivist should maintain the original order in which the records were created and kept. (Gilliland-Swetland, *Enduring Paradigm, New Opportunities* 12)

And so, there would not appear to be universal agreement on the matter. One possible reason for this confusion can be found in the fact that, as Peter Horsman pointed out at a conference dedicated to the principle of provenance, which was held in Stockholm in 1993; 'Besides the Principle of provenance there are Respect des fonds, Principle of original order, Registry principle, Principle of pertinence, a whole babel of tongues' (Taming the Elephant 51). Nine years later, in 2002, he was still apparently wrestling with the issue when he asked the question;

> What then [...] is wrong with this principle of provenance, which lies at the heart of archival theory, or with archival theory in general, or with the archivists' theoretical competencies, that they cannot articulate a firm consensus on so central a concept to their identity and work? (The Last Dance of the Phoenix 5).

From the rest of the article it would seem that the thing which Horsman finds 'wrong' is in fact certain 'archival methods of arrangement and description' since it is through them that he feels that 'Provenance is [...] undermined' (The Last Dance of the Phoenix 22). The methods he finds fault with would seem to be broadly those of fonds based archival description, which were equated with the principle of provenance by the 1910 conference.

Whilst not disagreeing with Horsman's conclusion, this thesis would argue that fault can also be found with 'archivists' theoretical competencies' (Horsman, The Last Dance of the Phoenix 5). Such competencies, however, do seem to have developed in recent years. For example, if the articulation of the idea of provenance (as a certain method of arranging and describing archives) in the Dutch Manual is contrasted with Horsman's own, as reproduced below, the idea starts to become clearer, e.g.;

> the visualisation through description of functional structures, both internal and external: archival narratives about those multiple relationships of creation and use so that researchers may truly understand records from the past. (The Last Dance of the Phoenix 22-23)

It is, in part, through developing what Horsman calls their 'theoretical competencies' that archivists have started to distinguish this idea from its application.

DISTINGUISHING THE IDEA (OF PROVENANCE) FROM THE APPLICATION

The application of the idea of provenance termed here fonds based archival description (to distinguish it from a different application of the idea, termed here the series system), has always been subject to spatial and temporal variations, nor have such variations been seen as necessarily something to be avoided. Indeed Hilary Jenkinson (later Sir Hilary), whose own archival instruction manual,

A Manual of Archive Administration, was first published in 1922, questions 'whether quite so rigid an application of principle [as that he sees the Dutch Manual as aiming for] is desirable, or at any rate possible, in all cases' (18). Broadly speaking therefore, the application of the idea of provenance, developed at this time (the late nineteenth/early twentieth century) and outlined in manuals such as those of Muller, Feith and Fruin and Jenkinson, involved the arrangement of archives, followed by their description, that is, by 'a summarizing of the result upon paper' or 'the making of the inventory' (Jenkinson 97-98).

Thus, the most telling characteristic of this application (fonds based archival description) is the creation of an arrangement, 'based on the original organization of the archival collection' (Muller, Feith and Fruin 52). Jenkinson, who worked primarily in the context of government organisations, provided guidance on undertaking arrangement, as follows;

> All the Archives in a *Depôt* are divided up into *Fonds* or *Archive Groups*: within an Archive Group we may have *Divisions* or sub-groups: these in turn are to be described under the *Functions of the Administration* which produced them (these Functions being used as *General Headings* for classes of documents): the classes themselves consist of *Series of Archives* representing the original arrangement (94).

More recently, such guidance has tended to include the use of a hierarchical model, such as that in appendix A-1 of *ISAD(G)*, which is reproduced overleaf.[10]

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[10] The idea of a hierarchy can be seen to reflect administrative structures within more traditionally bureaucratic organisations. There has often been discussion about how arrangement should apply to personal papers, where such administrative structures do not apply. In this respect, a question for further research would be to identify the context in which the image of a hierarchy is first used in connection to fonds based archival description. Certainly, Jenkinson's manual does contain a 'Chart of specimen arrangement of archives', which appears to use a sort of hierarchy, although on closer examination, there does not seem to be a link between his level (II) Divisions and level (III) Functions (224).

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APPENDIX A-1

A1   The ISAD(G) hierarchical model shows a typical case and does not include all possible combinations of levels. Any number of intermediate levels are possible between any shown in the model.

Model of the levels of arrangement of a fonds
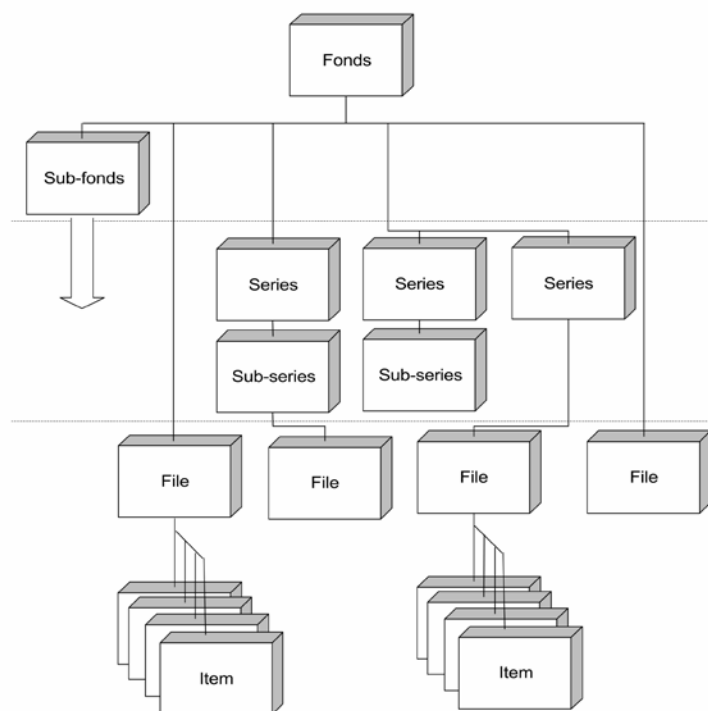
Figure 1.1: Model of the levels of arrangement of a fonds taken from

Appendix A-1 of the *General International Standard Archival Description*

(ICA Committee on Descriptive Standards 36)

As can be seen from the above, a hierarchical model tends also to invoke the

concept of levels. This idea can also be found in Oliver Holmes' paper "Archival

Arrangement Five Different Operations at Five Different Levels", which summarizes the practice of arrangement as undertaken in the United States of America's National Archives in the period following the Second World War. In this paper the levels are; depository level, record group and sub-group level, series level, filing unit level and document level. Record group is seen as the equivalent of fonds or archive group and thus an additional level, depository level, is introduced above it 'chiefly for administrative purposes' (24).

This highlights that one of the reasons why variation in application appears is because the application must be fit for 'administrative purposes', for the context in which it is operating. The context in which the authors of the Dutch Manual were operating was different to that of Sir Hilary Jenkinson, and in turn, the context in which Holmes was operating was different to that of all the others. It was different in as much as Holmes and his contemporaries found themselves dealing with 'a mounting crisis of contemporary records, only a tiny fraction of which could be preserved as archives' (T Cook, What is past is prologue 26). The application devised in the late nineteenth/early twentieth century was no longer fit for purpose, but the strong bond between the idea of provenance and its implementation in the form of fonds based archival description could not quite be broken, although it was stretched to breaking point in the following definition of a record group as;

> a major archival unit established somewhat arbitrarily with due regard to the principle of provenance and to the desirability of making the unit of convenient size and character for the work of arrangement and description and for the publication of inventories' (Schellenberg, Modern Archives 181).

The snapping of this bond was not long in coming and the individual who finally snapped it was a man called Peter Scott.[11]

PETER SCOTT AND THE SERIES SYSTEM

Peter Scott operated in Australia, although in a broadly similar context to that of Holmes and his contemporaries in the United States of America. The time was the late 1950s/early 1960s and Scott found himself dealing with constantly accruing accumulations of records from the constantly changing organisational structures which formed the modern Australian government; a problem Terry Cook has summarized as 'complexity of administration' (T Cook, What is past is prologue 28).

'Complexity of administration' had always been an issue for those who applied a fonds based descriptive architecture, where records tended to be assigned to a single creator (or fonds). However, as long as the archives that they dealt with were those of long dead organisations (which even when alive had been relatively stable), it was only a minor issue and could be absorbed by the system in a number of ways (T Cook, What is past is prologue 28). Thus, for example, in the Dutch Manual, rule 9 stated that 'If it appears from the contents that the document may have belonged to any one of two or more collections, it should be placed in one of them with a cross reference in the others' (Muller, Feith and Fruin 35). Then again, Jenkinson spoke of the situation 'Where one series of Archives is divided between two Archive Groups', his solution being as follows (85-87);

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[11] Peter Scott has recently reflected at some length on his development of the series system in a volume designed to bring together his many writings on the subject for the first time. Due to a time delay in gaining access to a copy of this work, it has not been consulted for the purposes of this thesis (Cunningham).

It seems quite clear that the Archivist's only plan in such a case if he wishes to avoid confusion is to class the Archives separately under the Administrations which actually created them, even though this means breaking up a single series between two Archive Groups. A proper system of cross reference will leave no doubt as to what has occurred (86).

Once the complexity with which archivists were dealing increased, however, the problem grew worse and it led Scott to propose an alternative solution. He described this solution in the following terms 'to abandon the record group as the primary category of classification' (The Record Group Concept 497). What he did in practice though, was to isolate what appeared to be the objectives of fonds based archival description, namely that it sought to keep archives; 1) 'in their administrative context – the office unit or person producing them and the records system of which they form part' and 2) 'in the order in which they were produced, entered on record, or incorporated into a record system' (The Record Group Concept 493). And then, having ascertained these objectives, he went on to redesign the application to achieve these objectives more effectively given the context in which he was operating.

His redesign resulted in a way of describing known as the series system. The series system did not rely on an arrangement, rather it used an entity-relationship model, which involved the description of two types of entities, context and record, and the recording in those descriptions of the many and varied relationships between entities of the same and different types. With the information these descriptions provided it was possible to construct any number of different arrangements, but the process of arrangement as such did not take place. He chose to present this new way of describing as shown overleaf.

```
┌──────────────────────────────────────────────────────────┐
│                    CONTEXT CONTROL                         │
│                                                            │
│     Organisation                            Family         │
│          │                                    │            │
│          ▼                                    ▼            │
│       Agency  ──────────────────────────▶  Person         │
│          │                                    │            │
└──────────┼────────────────────────────────────┼───────────┘
           │      ┌──────────────────────┐       │
           │      │    RECORD CONTROL     │       │
           └─────▶│    Record Series   ◀──┘       │
                  │         │                     │
                  │         ▼                     │
                  │       (Item)                  │
                  │         │                     │
                  │         ▼                     │
                  │     (Document)                │
                  │         │                     │
                  │         ▼                     │
                  │    (Information)              │
                  └───────────────────────────────┘
```
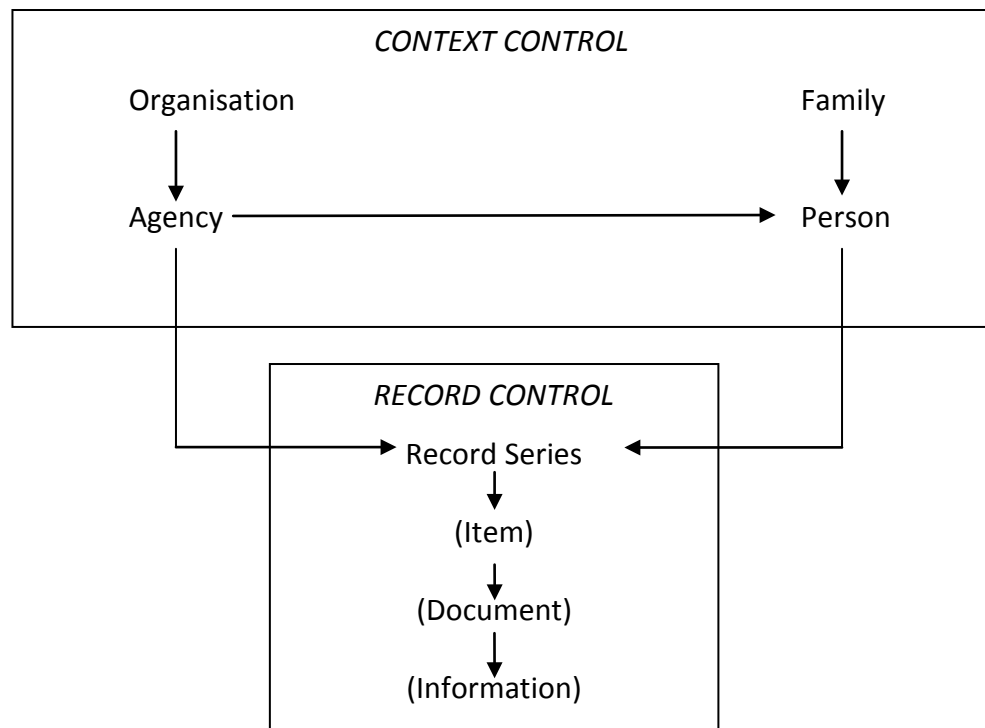
Fig 1-2 Peter Scott's representation of the series system (redrawn from Scott, The Record Group Concept 498)

In changing the application though, Peter Scott did not lose sight of the idea, rather he made the point that the fonds based descriptive method 'Instead of enabling one to adhere to basic principles' or operate in a manner 'in complete harmony' with the guiding ideas of the profession, 'may actually distort the application of such principles' (Scott, The Record Group Concept 502). In so doing he served to free the profession from its dogmatic adherence to an application that was no longer the best it could be. In so doing, he also freed the idea of provenance from the application of it known as fonds based archival description, and thus he enabled it to reach more of its potential.

THE REDISCOVERY OF PROVENANCE

In the preceding sections, two ways of describing known as fonds based archival description and the series system have been discussed. It has been shown that

they are both connected to an idea, for which the label provenance has been used. It has been argued that, with regards to the first of these two ways, fonds based archival description, the idea and its implementation were developed more or less in parallel, leading to some difficulty in separating the two. Moreover, it was proposed that the development of a new way of describing, known as the series system, meant that this difficulty could be overcome. For, it was now possible to conceive (as Scott did) that the same idea could have (radically) different implementations. The idea became freed of its constraining implementation and this thesis sees this breakthrough as the same phenomenon as that, termed by Tom Nesmith, 'the rediscovery of provenance' (*Canadian Archival Studies and the Rediscovery of Provenance*).

A good description of this phenomenon is provided by Terry Cook in his article "What is Past is Prologue" (35-40). He locates it in both Canada and Australia, but notes European influences. He dates it back to the later 1970s in Canada, and to Peter Scott's work in Australia in the 1960s. Cook himself has played a prominent part in this phenomenon and his view of it therefore deserves respect. Nevertheless, that view, though privileged to some degree, need not be taken as the final word on the subject.

Thus, whereas he expresses himself in the following way; 'until the later 1970s, North Americans limited their use of the concept of provenance to a narrow range of arrangement and description activities', the thesis here would be that until the later 1970s the historically engendered embodiment of the idea of provenance as certain arrangement and description activities (the fonds based descriptive method as the articulation of the idea of provenance) limited North Americans' use of that idea (What is Past is Prologue 35). Then again, when Cook writes;

> Scott's essential contribution was to break through (rather than simply modify) not just the descriptive strait-jacket of the Schellenbergian record group, but the whole mindset of the "physicality" of archives upon which

> most archival thinking since the Dutch *Manual* had implicitly been based.
> (What is Past is Prologue 39)

This thesis would see the mindset 'upon which most archival thinking since the Dutch *Manual* had implicitly been based' as, not just, about the '"physicality" of archives', but also, as about the physicality of thinking that meant articulations of ideas were made predominantly in the form of applications, regardless of the fact that articulations in such a form were in danger of becoming 'unduly limiting' and distorted in the face of the inevitable changes in the world in which they had to be implemented (Scott, The Record Group Concept 502).

Writing of the rediscovery of provenance, Terry Cook writes of how 'Canadian archivists began discovering (or 'rediscovering') the intellectual excitement of contextualized information that was their own profession's legacy' (What is Past is Prologue 36). He also asks Europeans 'to forgive North Americans their temporary archival apostasy and to understand the enthusiasm of their recent rediscoveries!' (What is Past is Prologue 38). Scott's fundamental breakthrough was then, to allow archivists to see again that they had an idea, a very exciting idea about 'creator contextuality that can turn information into knowledge' (Cook, What is past is prologue 37).

THINKING ABOUT THE IDEA

The Australians, who rediscovered provenance in the 1960s via a change in their descriptive practice, were the first to start to work with rethinking the idea of provenance. A major outcome arising from their considerations is the records continuum model, which was published by Frank Upward in the mid 1990s. Originally intended to be, 'a teaching tool to communicate evidence-based approaches to archives and records management', it has developed, according to Upward, into 'a worldview' or 'an overview for re-organising our detailed knowledge and applying our skills in contexts framed by the task at hand'

(Upward, Modelling the Continuum 115; 128). It is this worldview that can be seen to underpin the second of the two dominant approaches referred to earlier in the chapter, that which was associated with ISO 23081 and the series system. The model is reproduced below for reference.
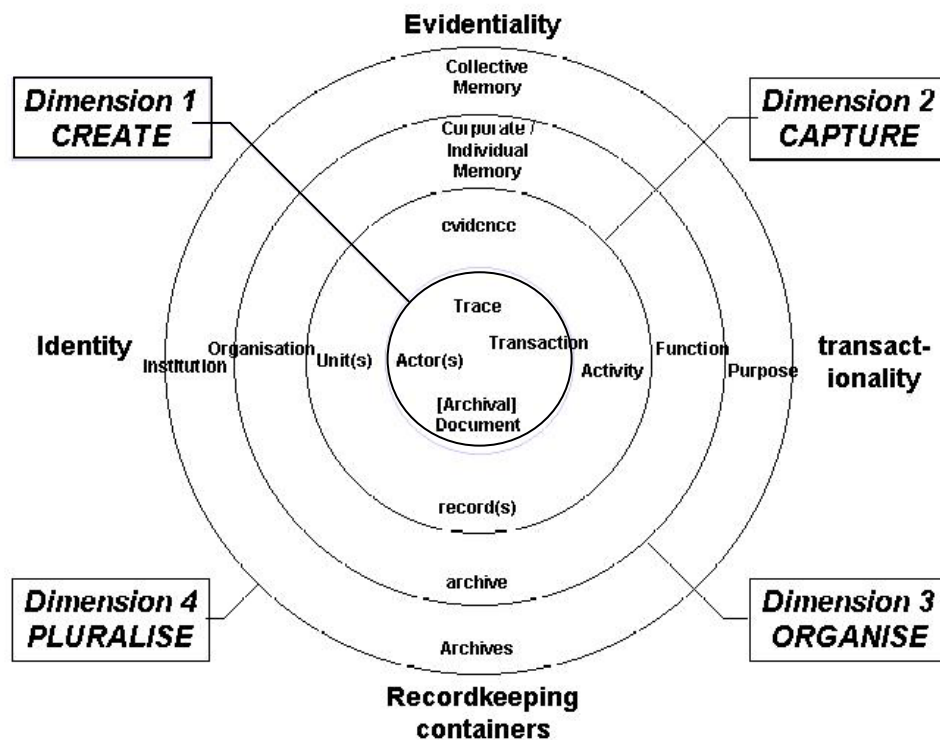
Figure 1.3: The Records Continuum Model

(Upward, Modelling the Continuum 123)

Permission to reproduce this has been granted by Frank Upward.

In the records continuum model, records are seen as contingent and boundless, existing in space-time. The model also reflects, as its developer himself points out, 'the ongoing twentieth century search for continuity between archives and records management' (Upward, Modelling the Continuum 118).

In this regard, it is important to note that, whereas, in North America and Europe, archives and records management have traditionally, and to some extent still are, regarded as distinct professions; the one (archives management)

responsible for those records 'adjudged worthy of permanent preservation for reference or research purposes and which have been deposited or have been selected for deposit in an archival institution', the other (records management) responsible for those records being used or maintained by institutions, organisations, associations, families and so on for their own purposes, in Australia this is not the case and the all encompassing term recordkeeping is preferred (Schellenberg, Modern Archives 16).

Making the records/archives distinction can therefore be seen as a characteristic of the first of the two dominant approaches mentioned earlier in the chapter - that associated with fonds based archival description, whereas not making this distinction is a characteristic of the second, associated with the series system. Labelling these different approaches is difficult however, as there are many different labels in use. For example, the second approach is sometimes associated with the label 'postcustodial'. This is certainly a term used by the developer of the continuum model, but as Terry Cook points out in a footnote, it has also been used in other contexts, some of which pre-date the continuum model (Upward and McKemmish; T Cook, What is past is prologue 62). Whatever the term used, however, there would seem to be a broad consensus within the field of archival science that there is a shift occurring;

> away from viewing records as static physical objects, and towards understanding them as dynamic virtual concepts; a shift away from looking at records as the passive products of human or administrative activity and towards considering records as active agents themselves in the formation of human and organizational memory; a shift equally away from seeing the context of records creation resting within stable hierarchical organizations to situating records within fluid horizontal networks of work-flow functionality. (T Cook, Archival Science and Postmodernism 4)

The first approach can be placed on the side of this shift from which there is movement away, the second on the side towards which the field is moving. This thesis has been constructed within the second of these approaches, which shall be termed here continuum thinking, the first approach being termed, correspondingly, non-continuum thinking.

CONTINUING CONSTRAINT

The strengthening consensus in the direction of travel of continuum thinking can be seen as causing difficulties for those who still undertake the method of describing termed here fonds based archival description, which is associated with the non continuum approach from which the field appears to be moving away. Certainly some continuum thinkers, such as Chris Hurley, would seem to suggest that it is impossible to combine continuum thinking with the practice of fonds based archival description whilst maintaining any intellectual consistency. For example, he feels it necessary to comment as follows;

> I now deride the ICA approach [the multi-level hierarchical approach of fonds based archival description] wherever possible and whenever I am allowed to speak about descriptive standards. When I point out the logical absurdities and implementation nightmares of trying to apply these underlying principles in *ISAD* and *ISAAR*, I frequently get the reaction that although these standards are subscribed to they are not actually implemented as written. "Oh, yes," people say to me "we follow the standards, but we don't do what they say - we actually do it your way!" (Parallel Provenance 9)

It may be that it is impossible to combine (with any intellectual consistency) continuum thinking with the practice of fonds based archival description as outlined above. That is not, however, an argument with which this thesis seeks to engage directly. Rather, it is highlighted here, as another possible causal factor

behind the proposed lack of definition with regards to archival description. Could it be that, if these intellectual inconsistencies do arise, they might result in some practitioners feeling a sense of disconnect with regards to the practice they are undertaking, which will cause it to appear a little out of focus?

Hurley's quote also reintroduces the issue of standards. It may be possible (as Hurley and others do) to argue that, in the context of the emerging continuum thinking, the series system is a 'better' way of describing than fonds based archival description. It may even be that many would agree. Nevertheless, it was always going to be more difficult to replace the fonds based method in those countries (outside Australia) with a longer tradition of its use. As Michael Roper, of the UK Public Record Office put it;

> So radical a solution [the implementation of the series system] was not, however, open to the PRO, where the record group has become a feature of the document reference system which has been used and cited by several generations of scholars. (Modern Departmental Records 403)

Even so, Roper does explain how the PRO were attempting to make small steps in that direction, e.g.;

> It has nevertheless been possible to reduce the emphasis on the record group and to concentrate it on the series (known in the PRO as the class). Successive transfers of records in a continuing series are now placed in the same class irrespective of their source; new classes are placed in the most convenient group, having regard to related classes; new groups are not necessarily created when a new department is established, if there is a convenient existing group. (Modern Departmental Records 403)

Others, or at least those Chris Hurley has spoken to and to whom he refers in the quote above, would seem to be moving in a similar direction, bending the rules as it were without quite abandoning the game. And, as Hurley also points out,

this direction would seem to put them into conflict with the standards, such as *ISAD(G)*, to which they have, at least nominally, signed up.

The point to bear in mind is then, that the negotiation of the possibility of a change from one to another method of describing (itself associated with an emerging shift from non-continuum to continuum thinking) was being made at the same time as a parallel effort to standardize the practice of describing. A complex situation was thereby made more complex, for when looking to standardize the practice, the developers of *ISAD(G)* looked back, to their traditional (fonds based) practice, rather than forward to the idea that there might be a better way of doing it. The decision to do so is completely understandable – it is easier to standardize what is known, rather than what is still in flux, but it does mean that the situation has arisen whereby difference has been standardized.

STANDARDIZING DIFFERENCE

It was stated earlier, that the parallel development of two different suites of standards was one way of managing difference, but in terms of the quest for definition with regards to archival description it may not have been the best way, because once difference is standardized, it becomes a lot more difficult to see past that difference. Comparing the two different suites of standards then, it is not just (or indeed even) the difference between fonds based archival description and the series system, which has been standardized. Rather it is that between continuum and non-continuum thinking, and that between making the link between the idea of provenance and its implementation explicit and allowing it to remain implicit.

For example, with regards to the difference between continuum and non-continuum thinking, it is noticeable that, whereas the ICA standards (*ISAD(G), ISAAR(CPF), ISDF and ISDIAH*) seek to standardize archival description, *ISO 23081*

concerns recordkeeping metadata. In the mid 1990s, as part of a debate within the Canadian journal *Archivaria*, it was recognised that the main point of difference in the opposition of archival description and metadata was when to describe/to create metadata, e.g.

> Heather MacNeil suggests that archival description should be performed by archivists after records have outlived their usefulness to their creator. David Wallace posits that description at the end of the life cycle causes backlogs, and the loss of vital contextual information. To solve these problems he recommends that creators or systems generate descriptions during records creation and use or what has been traditionally called the active stage of the life cycle. (Duff, Will Metadata Replace Archival Description 33)

The 'departure point of application of description taking place after [...] the archives has taken custody of the material' was also one of the points of disagreement with regards to the statement of principles (see p.15), for those in the continuum mindset see archival description as being limited by this departure point (ICA Committee on Descriptive Standards, History of ICA/CDS). It is as far as they are concerned only;

> Description applied in the archival environment. Within continuum theory also known as fourth dimensional description. (Australian Society of Archivists Committee on Descriptive Standards 35)

They therefore prefer the term description, described as 'a continual process of accrual of ever broader and richer layers of metadata that capture the contexts within which records are created and used throughout their lifespan as they move within, and beyond, the systems in which they were initially created' (J Evans 91).

The second point of difference that has come to be standardized within the different suites of standards is the degree to which they make explicit their links with their theoretical underpinnings. For example, contrast *ISAD(G)* with its vague statement that 'Archival descriptive standards are based on accepted theoretical principles' with the way in which the bulk of *ISO 23081-2* is taken up with a conceptual model and 'Concepts relating to metadata implementation' (ICA Committee on Descriptive Standards 8; International Standards Organisation 9).[12]

SEEING PAST DIFFERENCE

It would be possible to construct a narrative which shows that, in more recent times, there has been a move towards seeing past these differences, but it would be equally possible to corrupt that narrative. For example, some might see the inclusion in the second edition of *ISAD(G)* of the following sentence 'Description-related processes may begin at or before records creation and continue throughout the life of the records' as indicating a narrowing of the difference between continuum and non-continuum mindsets (ICA Committee on Descriptive Standards 7). Others might see it merely as a sensible acknowledgement of the need to intervene earlier to ensure the preservation of more volatile electronic records.

Then again, it might be possible to argue that the developers of the ICA standards are starting to become more explicit in making the links to their theoretical underpinnings, for Victoria Peters wrote, in 2009, that an ICA working group 'will be investigating not only the harmonisation of the standards but also

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[12] This conceptual model is based on the Conceptual and Relationships Models: Records in Business and Socio-Legal Contexts, which were developed in the late 1990s by the Strategic Partnerships with Industry – Research and Training (SPIRT) Project entitled Recordkeeping Metadata Standards for Managing and Accessing Information Resources in Networked Environment Over Time for Government, Commerce, Social and Cultural Practices.

the possibility of developing a conceptual model for archival description' (26). The details of this process and an idea of what will result from it are, however, not yet publicly available. It will be interesting to see what such a model might look like. It is after all possible that its development might serve to finally bring to light the 'logical absurdities' of which Hurley has spoken (Parallel Provenance 9).

Ultimately though, the point this thesis wishes to make is that it is difficult to see past difference, once difference becomes standardized. In these circumstances, debate tends to become polarized and the middle ground, the core, is neglected. For example, Chris Hurley is one of the foremost current thinkers on archival description, and yet his explorations of the subject are frequently framed in terms of his strong opposition to the ICA standards and the method of describing associated with those standards (as in the articles "Parallel Provenance" and "Documenting Archives and Other Records").

Then again, because difference has become standardized, it is difficult even to use the term archival description without further definition. For example, when someone speaks of archival description, are they thinking of 'fourth dimensional description' or;

> The creation of an accurate representation of a unit of description and its component parts, if any, by capturing, analyzing, organizing and recording information that serves to identify, manage, locate and explain archival materials and the context and records systems which produced it. (ICA Committee on Descriptive Standards, *ISAD(G)* 10)

This thesis, therefore, takes the view that it is vital to heed Duff and Harris's call 'to investigate differences with a desire for inclusivity, rather than exclusivity' (274). The lack of definition this thesis sees as its starting point arises in part because what should be the unifying quest of a profession to seek definition for a central aspect of its practice tends to be expressed in terms of an attempt to

resolve a number of other differences, such as those between continuum and non-continuum thinking and between fonds based archival description and the series system. This thesis will then seek to avoid dwelling on these differences; they will remain in the background, but will not be allowed to become the main focus.

SEEKING DEFINITION

This chapter set out the premise that the practice known as archival description is suffering from a lack of definition. It highlighted the fact that there were numerous definitions of archival description and numerous standards for it. Two different approaches, continuum and non continuum thinking, were outlined and it was noted that both approaches shared the same roots and that those roots rested in an idea labelled provenance. This idea, it was shown, was formulated in the nineteenth century and rediscovered in the twentieth, when another difference was drawn, this time between a way of describing labelled fonds based archival description and another developed by Peter Scott and called the series system.

It was further suggested that, negotiating this new difference between two different ways of describing took place against the background of 1) a direction of travel towards so called continuum thinking and 2) a move towards greater standardization for the practice of archival description (as a result of the introduction of automation). It was argued that, as a consequence, difference had become standardized, such that the profession's quest for definition for a central aspect of its practice had been hijacked by the need to resolve a number of other differences. This was seen as one possible reason for the current lack of definition felt with regard to archival description, as was the movement towards the digital age and a wider sense that reality was becoming more chaotic.

Whatever the reason for the current lack of definition with regards to the practice known as archival description, there would nevertheless seem to be sufficient evidence to support the premise that it does lack definition. The question then would seem to be 'what is archival description', but to answer that question now would be to anticipate what follows.

CHAPTER TWO – GROUNDED THEORY

'There is nothing so practical as a good theory', Kurt Lewin
(Cartwright, Field Theory 169)

Having established that the aim of this thesis was to seek definition for the practice known as archival description, the next question that required an answer was how to set about that task. As a result of the view outlined in the previous chapter, it seemed clear that the best way to provide the sought after definition was not through the construction of definitions or standards, since there were plenty of these about, and yet the lack of definition was still felt. It seemed also that it would be preferable to find a method that allowed the existing frame of difference, seen as obscuring, to be circumscribed in some way. Rather more positively though, a promising avenue appeared to be an investigation into the realm of ideas, since it was an idea known as provenance that seemed to provide the unifying root to the practice. Such an investigation implied then, a theoretical approach.

Before taking such an approach, however, two problems needed to be faced. Firstly, given that, as Gilliland and McKemmish have put it 'little critical attention has been paid until recently to how archival theory has been, or should be built', there was limited discussion about the merits of the various methods of theory building and their comparative strengths and weaknesses within the field (154). And, secondly, there was the problem that the researcher, having practiced as an archivist for many years, felt uncomfortable with the idea that developing theory was a worthwhile pursuit. This chapter will detail how these problems were overcome with the selection of grounded theory as a methodological approach.

It will also outline briefly the process of undertaking grounded theory; partly in the hope that this exposition will prove of use to those who may also wish to follow a grounded theory approach, but primarily to show how it is only through

the experience of doing grounded theory that the researcher has come to the deeper understanding of it which is articulated in the rest of this chapter.

THEORY BUILDING

Given the paucity of literature on theory building within the field of archival science, it was necessary to read outside it, with, for example, Susan Lynham's article "The General Method of Theory-building Research in Applied Disciplines", which was published in the journal *Advances in Developing Human Resources* and referenced by Gilliland and McKemmish in "Building an Infrastructure for Archival Research" (155). In this article Lynham describes theory building as 'a recursive system of five distinct phases'; these being 'conceptual development, operationalization, application, confirmation or disconfirmation, and continuous refinement and development' (229). This model is later used, in an article by Richard Torraco, who attempts 'a comparative analysis of research methods for theory building that leads to deeper understanding of the methods and their unique contributions to theoretical knowledge' (355). Looking at this comparison, one method jumped out at the researcher and that was grounded theory. It stood out because of its distinctive features, which were identified by Torraco, as follows;

- Grounded theory is of particular value when the authenticity of the theory generated is paramount to the researcher. Grounded theory is distinctive in its approach to theory building because of its singular commitment to allow new theoretical understandings to emerge from the data. This unique property of grounded theory, faithfulness to the substantive data, allows a closeness of fit between theory and data.
- Grounded theory is of particular value when the type of theoretical knowledge needed is free from the need for empirical confirmation (or disconfirmation) of preexisting conceptions. This approach is best for

generating new insights and tentative hypotheses, regardless of existing theoretical explanations of the phenomenon of interest.

- Because grounded theory allows specific elements of research design to take shape after the research process has begun, the knowledge yielded may or may not have been anticipated by the researchers. Thus, truly novel findings about the phenomenon are likely. (372-373)

The first thing that stood out in Torraco's analysis was the repetition of words such as 'new' and 'novel'. Clearly, given that in a PhD thesis the question of originality has some pertinence, a method that offered the promise of generating something new and novel was an attractive one. Then again, given that there seemed to be a need to circumscribe the current frame of difference in thinking about archival description, the promise of freedom from 'preexisting conceptions' was also appealing. Finally, given what has been said about the researcher's discomfort with the idea of theory, the promise of authenticity and closeness of fit between theory and data appeared to ease some of this discomfort, as explained below.

ARCHIVAL THEORY AND PRACTICE

The relationship between archival theory and practice has received a considerable amount of attention over the years. For example, in 1981, Frank Burke wrote an article entitled "The Future Course of Archival Theory in the United States" (40-46). This sparked a debate that continued with the later publication of articles by Lester Cappon, Gregg Kimball and John Roberts (Cappon 19-25; Kimball 369-376; Roberts, Archival Theory 66-74). John Roberts also took part in a similar debate at the 1993 Annual Conference of the Association of Canadian Archivists, which was later reported in the journal *Archivaria*. The conference was called Between a Rock and a Hard Place: Archival Theory and Practice. The keynote address was given by Heather MacNeil and Terry Eastwood offered an opposing view to that of Roberts, who maintained his

earlier position of having no time for theory (MacNeil, Archival Theory and Practice 6-20; Eastwood, What is Archival Theory 122-30; Roberts, Practice Makes Perfect 111-121; Roberts, Response to Terry Eastwood's Paper 131-133).

Over subsequent years, 'a broad middle ground in the spectrum' has developed, but theory and practice still remain at opposite ends of that spectrum (Williams, Studying Reality 79). Or, as Terry Cook puts it, 'theory and practice are too often viewed as archival polarities' (Foreword xvii-xviii). Theory then is still often faced with the cry '*what about practice*' (original emphasis)(Upward, Modelling the Continuum 119). And, although few would now feel, as Roberts apparently did, 'The professional subordination of practicing archivists to the archival theorists', there is, as Caroline Williams points out 'always [...] the potential for tension between theorists and practitioners' (Roberts, Practice Makes Perfect 118; Williams, Studying Reality 78). This, once again, demonstrates how difficult it can be to see past difference when the frame of reference employed is one of difference, such that the 'and' (in this case in theory and practice) seems to emphasise separation rather than connection.

Given this frame of reference though, grounded theory, with its sense of closeness of fit between theory and data, seemed to the researcher somehow more practical and hence attractive. Nor, did it seem, on further reading, that the researcher was alone (amongst practitioners) in feeling this attraction.

GROUNDED THEORY – A STRAIGHTFORWARD APPROACH

Grounded theory was first formulated by the sociologists Barney Glaser and Anselm Strauss in 1967 (The Discovery of Grounded Theory). Barney Glaser has subsequently written about the roots of grounded theory, which he traces back to thinking about methodology undertaken at Columbia University and the University of Chicago during the 1960s (Doing Grounded Theory 21-33). Although initially developed in sociology, the method has subsequently been employed in

other fields, many of them so called applied fields, such as nursing, information science, management, business and marketing. This fact has been noted by Glaser, who writes;

> Indeed, grounded theory has made little inroads into those academic fields where the analytic interests of the academics, not the subjects, are the only relevant interest in the field. Academic interests are typically quite benign; that is they are of no consequence that can be considered crucial to anybody's fate [...] Fifteen or so years ago, fields with high impact dependent variables, variables that deal with learning, pain or profit, began looking for a methodology that gave them answers that fit, worked, were relevant and easily modifiable to constantly changing situations. (Doing Grounded Theory 4)

The use of grounded theory is not unknown within the archival science field. For example, recent theses completed at UCL which have employed grounded theory include Peter Sebina's 'Freedom of information and records management: a learning curve for Botswana' (2006) and Victoria Lemieux's 'Competitive Viability, Accountability and Record Keeping: A Theoretical and Empirical Exploration using a case study of Jamaican Commercial Bank Failures' (2002). In addition, grounded theory development is included in Gilliland and McKemmish's 2004 review of the archival research landscape, where a number of projects which have used it are detailed, e.g. 'the University of Pittsburgh project relating to Functional Requirements for Electronic Recordkeeping […], the Indiana University Electronic Records Project […] and the research and development work undertaken at State Records New York' (178).

One avenue of investigation would be to attempt to discover why grounded theory does seem to have been widely adopted by researchers in practice based disciplines, such as health and business and indeed archival science. One possible reason could be that grounded theory does tend to present itself as very straightforward, as absenting itself from more academic epistemological and

ontological methodological debate. For example, in the article "Naturalist Inquiry and Grounded Theory", after discussing at length his own take on the fourteen axioms of Lincoln and Guba's naturalist paradigm, Glaser writes 'GT's axiom is simple: let's see what is going on and it's, "whatever emerges"' (36).

Then again, Glaser also writes, 'There is no need to preamble grounded theory to distraction with promises of legitimacy. Let the product legitimize itself, as it is in the health, education and business professions, where it is crucial to have relevant research that works' (Doing Grounded Theory 16). Here then, the emphasis would seem to be on the product, the proof is in the pudding, or as Glaser puts it 'Product Proof' (Doing Grounded Theory 16). Indeed, in place of the normal criteria for evaluating research, such as credibility, validity, reliability, transferability, confirmability and so on, which emphasise the research process, Glaser tells us that grounded theory must be judged according to fit, workability, relevance and modifiability, which emphasise the research product (Doing Grounded Theory 18). Again, it is easy to see how these criteria might seem more relevant, practical even, to those working in practice based disciplines. They certainly seemed so to the researcher.

GROUNDED THEORY – A CONTESTED AND COMPLICATED APPROACH

Investigating further, however, it soon became clear that grounded theory was anything but straightforward and that those, following Glaser's advice to 'Just Do It! Get the experience' would be faced immediately with complications and contradictions (Doing Grounded Theory 19).

For example, there appeared to be considerable disagreement over what in fact constituted grounded theory and this disagreement extended to those who had first formulated it. For, in the early 1990s, Barney Glaser and Anselm Strauss began to develop grounded theory in different ways, when Strauss and Corbin's publication of *Basics of Qualitative Research: Grounded Theory Procedures and*

Techniques was followed two years later by that of Glaser's *Basics of Grounded Theory Analysis: Emergence versus Forcing*. Much has been written about this apparent conflict between the two co-discoverers of grounded theory (Heath and Cowley, Developing a grounded theory approach 141-50). Glaser himself, however, has sought to play it down (Doing Grounded Theory 36-40). Nevertheless, the debate continues and grounded theory has become increasingly contested in recent years. For example, some like Kathy Charmaz, have sought to draw a distinction between, what she calls, objectivist and constructivist grounded theory (Grounded Theory Objectivist and Constructivist Methods 509-535).

In order to operate on these shifting sands of different versions of grounded theory, a point of reference was required. The point eventually chosen was the version of grounded theory promulgated by self professed classic, orthodox or authentic grounded theorists as represented by The Grounded Theory Institute and The Grounded Theory Review.[1] It seemed reasonable to choose the version which was marketed as authentic and which claims to be the origin/the root from which all other forms spread, since these other forms could then be considered against the original version, along with other criticisms of the method.

Before looking at the method's critics, it was necessary, however, to get a firmer idea of what classic grounded theory involved and again the apparent straightforwardness evaporated. Glaser has written that grounded theory 'provides rules for every stage on what to do and what to do subsequently' (Doing Grounded Theory 13). And yet, comparing the different subtitles to the Basics volumes mentioned earlier, Strauss and Corbin speak of 'Grounded theory procedures and techniques', whereas Glaser writes of 'Emergence versus Forcing'. The steps and rules of which Glaser speaks tend to be expressed less in terms of procedures, more as ideas. These ideas are discussed below, along with

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[1] The Grounded Theory Institute has a web presence at www.groundedtheory.com.

their practical implications as they were experienced by the researcher in her use of a grounded theory approach in this study.

OPENNESS

One of the central tenets of grounded theory is that of openness. This sees its expression in two main ways. The first is in the idea of theoretical sensitivity, which is dealt with extensively in Glaser's book of the same name. Theoretical sensitivity is about approaching the subject of research free from preconceptions. It is about not setting out to investigate a preconceived problem, but first investigating what the problem is.   It is also about being open to the idea of theory and developing, as Glaser puts it, 'the ability to conceptualize and organize, make abstract connections, visualize and think multivariately' (Remodeling Grounded Theory 43). There is a rule connected with this idea, 'do not do a literature review' (Glaser, Doing Grounded Theory 67). However, it would appear that doing a literature review does not preclude a study from being grounded theory, so long as the researcher remains true to the idea of openness (Glaser, Doing grounded theory 72-3, 120-22).

The second expression of openness in grounded theory is the idea that 'all is data'. Classic grounded theory can use both qualitative and quantitative data (Glaser, Doing Grounded Theory 11-12; 42-43). Then again, there is no concern with the quality of the data being used, as Glaser writes, 'the researcher does not need to buy into any particular data as sanctified, objective or valid' (Doing Grounded Theory 8). The reasoning behind this relaxed attitude to data would appear to be that the data is seen merely as a tool in the generation of the grounded theory – 'GT [grounded theory] is detachable from the data that it was generated from; it endures as conceptually general long after the collected data is stale from change' (Glaser, Naturalist Inquiry 32). Thus, there would appear to be a contradiction at work here, such that grounded theory is grounded in the data and yet divorced from it. This contradiction can be seen as a manifestation

of the tension highlighted by many of grounded theory's critics with regards to its positioning as positivist or constructivist. This will be considered in more detail later in the chapter.

EMERGENCE

The principle of emergence is vitally important to classic grounded theory, where it is commonly opposed by forcing. Essentially emergence is the idea that the researcher must follow where the data leads and not attempt to force it to go where s/he wants it to go. This is achieved through an iterative mix of open coding, constant comparison, memoing, theoretical sampling and selective coding. Open coding, again invoking the idea of openness, is sometimes also called 'running the data open' (Glaser, Remodeling Grounded Theory 48). It involves looking at the data line by line and creating as many codes or categories as necessary to fit all the incidents within it (Remodeling Grounded Theory 48). Incident is constantly compared to incident and incident to categories. Memos (written notes) are drawn up detailing the ideas embodied in these categories and triggered by particular incidents. Then, as more and more data is analysed, properties of the categories begin to emerge as do relationships between these categories.

More data is then collected in accordance with the now emergent categories as 'the researcher chooses any groups that will help to generate, to the fullest extent, as many properties of the categories as possible, and that will help relate categories to each other and to their properties' (Glaser and Strauss 49). This is so called theoretical sampling. Eventually a core category emerges 'that it is central, relating to as many other categories and their properties as possible and accounting for a large portion of the variation in a pattern of behavior' (Glaser, Remodeling Grounded Theory 54). At this point selective coding is undertaken which concentrates on coding for the core and related categories until theoretical saturation is reached, that is when 'no additional data are found

whereby the sociologist can develop properties of the category' (Glaser and Strauss 61).

There is one rule associated with this idea 'DO NOT TAPE INTERVIEWS' (Glaser, Doing Grounded Theory 107) (original capitalisation) and over this at least, there is less flexibility. Also, classic grounded theorists are ambivalent (or at least they certainly were in the 1990s) about the use of data analysis software to assist coding (Glaser, Doing Grounded Theory 185-86).

INTEGRATION

This idea is about finishing the task at hand, not 'coping out' as Glaser puts it (Doing Grounded Theory 152-155). Classic grounded theorists believe that it is necessary to sort the concepts or categories that have emerged and integrate them into a fully fledged theory that explains the relationships between them. Associated with the idea of integration is that of theoretical coding. Again this feeds back into openness and is about being aware and sensitive to various models of theorising, such that they might be recognised if and when they start to emerge. Then again, grounded theory does deal explicitly with the actual writing up stage; as Glaser puts it, 'Grounded theory is to my knowledge the only methodology that guides the researcher from the moment he enters field to a final publishable draft' (Doing Grounded Theory 14).

Associated with this idea there is the rule 'NO OUTLINES' (Glaser, Doing Grounded Theory 189) (original capitalisation). There is also, once again, a feeling that the process should be undertaken manually rather than with the aid of software packages (Glaser, Doing Grounded Theory 192).

PRACTICAL IMPLICATIONS

The most obvious practical implication of the above ideas is a lack of structure, which can be both liberating and paralysing. This structure can be seen in many ways; for example, as the boundaries of the academic discipline within which the research is situated. As was stated above, one of the rules of grounded theory is 'do not do a literature review' but that rule is softened by the addition of the words 'in the substantive area and related areas where the research is to be done' (Glaser, Doing Grounded Theory 67). Thus, there is no prescription against reading outside those areas; in fact this is encouraged as a way of enhancing theoretical sensitivity. As will become apparent, reading outside the traditional archival literature has been an important influence in the development of this thesis, but it has also been time-consuming.

Then again, the structure a grounded theory approach lacks can also be seen as a set of research questions to be answered or a set of hypotheses to be proved or disproved. And, related to this, another structure it lacks is an overall research design or plan. As a result, it has been common for the researcher to feel directionless, paralysed into doing nothing by the fact that the lack of a structure meant she had the freedom to do anything. Glaser has written of the need to be able 'to tolerate confusion and regression' (Remodeling Grounded Theory 43). Certainly, the experience of the researcher has been that it is necessary to develop the ability to act whilst being in a constant state of uncertainty and doubt.

In some ways it is the walking of a tightrope between decision and indecision that is summed up by the pair, emergence versus forcing. A good illustration of this can be seen in the researcher's attempts at coding, which, despite the antipathy felt by classic grounded theorists, were, at least initially, carried out using the software package NVivo 8. NVivo allows for the creation of both 'free nodes' and 'tree nodes', where tree nodes can be hierarchically related to each other in branching trees and free nodes cannot. A first attempt at open coding

resulted in the creation of over 100 codes, a list of which is included in appendix A. Faced with this plethora of codes, the next logical step seemed to be to organise them into structures of tree nodes, but it soon became apparent that this approach was;

a) Futile – despite spending inordinate amounts of time attempting to fit all the initial codes into a schema, many just would not fit. The structure of the coding at this point is also reproduced in appendix A.

b) Forcing – since such efforts and had more to do with the researcher's desire to impose order (and control) over the data, rather than with discovering what it signified.

The tree node structures were therefore broken up and no further attempts were made to impose structure. Instead greater emphasis was paid to the relationships between nodes, since NVivo also allows for the creation of so-called relationship nodes. The idea was to find evidence in the data for relationships between nodes, such that a structure could emerge, rather than be imposed. At this point, it did not go unrecognised by the researcher that a hierarchical multi-level descriptive architecture was being abandoned in favour of an entity-relationship one in a way which echoed the difference between fonds based archival description and the series system, discussed in the previous chapter. It was also from this point onwards that much more use was made of the ability to interrogate the data using NVivo's various query features, such that the voices in the data continued to be in conversation with the researcher.

Having a dynamic and constantly changing picture emerging from the data, meant however, that it was very difficult to find firm ground on which to decide the basis for further data collection, such that once again it was a case of walking the tightrope between not closing down avenues whilst still needing to move forwards.

One final practical implication then of the ideas inherent in grounded theory is that grounded theory has its own pace and cannot be rushed, since this too amounts to forcing. This has become most apparent in the writing up phases, where it has not always proved compatible with the need to work to a deadline. Despite its apparent lack of structure though, the grounded theory approach does still require structure in the form of integration. This structure must, however, emerge or, put another way, the theory must self-organise. This, in the experience of the researcher, requires time and the ability to keep going with the process, even when it seems like it is going nowhere.

The practical implications outlined above may well be enough to deter some from undertaking a grounded theory approach, although hopefully not all. Certainly though, what grounded theory implies in practice, the walking of a tightrope between openness and integration, emergence and forcing, decision and uncertainty, can be seen as a reflection of what many of its critics find most problematic with it in theory, that is, with what Thomas and James have expressed as the way it tries to 'have it both ways' (784).

HAVING IT BOTH WAYS

When Thomas and James speak of having it both ways, they refer to the way that grounded theory appears to span both of what Gilliland and McKemmish call the 'most dominant prevailing research paradigms in the social sciences, positivism and interpretivism' (165). Positivism, they describe in the following terms, 'a view of knowledge formation that is linked to empiricism, and the notion of a reality that ''can be objectively observed and experienced''' (165). Whereas interpretivism, they write, works from the position that 'there is no one objective reality, but rather ''multiple realities which are socially and individually constructed''' (166).

Certainly there is a tension in the way that classic grounded theorists claim that grounded theory allows the researcher to discover 'what is "really going on"', whilst also claiming that it 'is not findings, not accurate facts and not description' (Glaser, Doing Grounded Theory 12; Glaser, Remodeling grounded theory 41). This tension has led some, like Kathy Charmaz, to seek, as was mentioned above, to draw a distinction between classic grounded theory, which she terms objectivist, and her own interpretation of it, which she terms constructivist. One way in which she frames this distinction is in similar terms to the way in which Gilliland and McKemmish distinguish positivism and interpretivism, namely in terms of the way each regards reality.

For example, according to Charmaz, 'Both Glaser and Strauss [...] assume an external reality that researchers can discover and record' (Grounded Theory Objectivist and Constructivist Methods 513). This reality is, in Charmaz's opinion, assumed to be '*the* reality—that is, objective, true, and external' (Grounded Theory Objectivist and Constructivist Methods 523). In contrast, constructivist grounded theory 'assumes that people create and maintain meaningful worlds though dialectic processes of conferring meaning on their realities and acting within them' (Grounded Theory Objectivist and Constructivist Methods 521). She seems then to see the tension inherent in having it both ways as needing to be resolved, seemingly through a shift from objectivist to constructivist grounded theory.

Thomas and James are also troubled by this tension in grounded theory, but, for them, it lies so deep at its heart that, 'the problems with grounded theory preclude any possibility of modification or retrenchment' (770). Rather, they choose to place grounded theory in the historical context of the development of qualitative research. Consequently they see what they term as its 'sleight of hand in reasoning about inquiry' as acceptable in having helped to make 'qualitative inquiry legitimate' (790). However, they feel that now that qualitative research 'stands in its own right', it is time to move away from this 'problematic territory' (790; 788).

Whilst there is a question to be answered about the feasibility of unproblematic territory in any discussion involving research methodology, Thomas and James' outright rejection of grounded theory is, in the researcher's opinion, more consistent than Charmaz's attempts to reconstruct it. The tension seen as having it both ways does lie at the heart of classic grounded theory. As has been shown in the earlier summary of it, contradiction is never far away; it is both 'a straightforward methodology' and 'a complex and multivariate methodology' (Glaser, Remodeling Grounded Theory; Doing Grounded Theory 14). Then again, the researcher's experience of undertaking classic grounded theory was one of constantly hovering on the brink, walking a tightrope between paralysis and freedom.

Recognising this fact, Thomas and James, do at least engage with classic grounded theory on its own terms, namely 'discovery', 'grounded' and 'theory'. For example, they see a problem with 'the notion of ground' as 'the idea that there is something beyond and underpinning' (790). Then again, they see that problems arise 'from the notion of theory and what is meant by and expected from theory' and go on to highlight 'the persistent primacy of theory in the knowledge stakes' and the way in which the word 'theory' carries epistemic collateral (781; 780).

'GROUNDED' AND 'THEORY'

Considering this criticism then, it seemed to the researcher that before attempting a grounded theory approach, one which would presumably lead to the creation of a grounded theory, it was necessary to pay attention in particular to the notions of theory, and of grounded. To limit this task to manageable dimensions, it was decided to do so in the context of the archival science field, that being the one within which this thesis was ultimately positioned.

Starting then with theory, the question, what is theory, is not unasked within the field. Thus, Frank Burke in starting up the theory and practice debate wrote that, 'If archivists wish to pursue the idea that there is such a concept as archival theory, they must first be willing to define that concept' (40). Burke's own answer to the question was that theory was 'the development of universal laws immutable and applicable at all times, in all places', but that is not the only view and many other suggestions have since been made (42).

For example, Trevor Livelton, who undertook an extended examination of theory in his book *Archival Theory, Records and the Public* (based on his 1991 master's thesis), sees theory as 'organised conceptual knowledge resulting from the analysis of basic archival ideas' (25). And, more recently, in his foreword to a book by John Ridener, which offers 'A Concise History of Archival Theory', Terry Cook proposes a view, in opposition to that of Burke, that theory is 'not a monolithic series of "scientific" laws objectively true in all times and places, but rather an on-going, open-ended quest for meaning about our documentary heritage that itself is ever evolving' (Foreword xix).

Clearly then, ideas about the notion of theory have changed over the years. One explanation for this change has been provided by Preben Mortensen, whose article "The Place of Theory in Archival Practice" was published in 1999. Looking back at earlier debates about theory and practice, Mortensen suggests that those involved, such as Roberts and Eastwood, held 'a (largely) positivist conception of science', which was inaccurate given that 'science (i.e., "hard science") does not itself exhibit the methodological rigour popularly associated with it, and is not beyond social, political, cultural, and historical influences' (1, 3). That such a largely positivist conception should have prevailed at the time, however, is not surprising. That the archival field was heavily influenced by this framework is acknowledged by individuals, such as Terry Cook, who has also seen in the more recent past a 'paradigm shift' whereby;

> The positivist model based on the integrity of a scientific resurrection of facts from the past and the record as an impartial, innocent by-product of action has been utterly discredited. (Archival Science and Postmodernism 10).

One way of viewing the early debate about theory and practice then, is as an opening move in the field's shift away from a position where positivism was its dominant paradigm.

Although there would appear to be broad consensus within the field that positivism used to be the dominant paradigm, there is, however, much less agreement about what has replaced it. This uncertainty is summed up by Gilliland and McKemmish, as they 'muse about what a single paradigm might look like for archival science' (164). Alternatives are considered and, in the end, they seem to suggest that it might lie in the middle ground between positivism and interpretivism, e.g.

> In emergent archival research, liberation may well lie in the challenge of applying the apparent opposites of interpretive and positivist approaches to studying archival phenomena [...] In part it may lead to understandings that some phenomena in our world behave in ways which are susceptible to being seen from a positivist perspective, while others are more readily understood from an interpretivist viewpoint. And perhaps the creative tension generated will lead us to yet other ways of seeing. (170)

As we have seen this is exactly the ground that grounded theory has been criticised for occupying. Perhaps then it could be one of the 'other ways of seeing' that Gilliland and McKemmish discuss? Perhaps the tension at its heart is not a problem to be resolved, but a creative force?

Returning then to the question, what is theory? Mortensen seems to suggest that the notion of theory as 'universal laws immutable and applicable at all

times, in all places' is a positivist one. Charmaz's constructivist (grounded) theory would seem to come closer to the notion of a story, e.g. 'The grounded theorist's analysis tells a story about people, social processes, and situations' (Grounded Theory Objectivist and Constructivist Methods 522). A notion of theory to occupy the middle ground would then need to find a way to retain the 'epistemic collateral' that is present in theory, but not in story, without claiming to be universal laws taken from some objective external reality.

Such a notion, however, already exists within the archival field and can be seen in Terry Cook's recent definition, but also perhaps more clearly in Preben Mortensen's 1999 definitions of theory as 'a self-conscious reflection on a particular practice in order to bring to light the presuppositions unconsciously assumed in that practice' or the 'examination of a practice or of practices, aimed at articulating those general principles, ideas, or theories that give these practices their coherence – or perhaps render them incoherent' (17; 19-20).

This then leads into the notion of ground and also into a possible explanation for the apparent affinity between grounded theory and the applied disciplines. In his response to John Roberts' view on archival theory, Terry Eastwood wrote the following;

> However much an applied discipline might rely on knowledge of other disciplines to build its theoretical picture of the nature of the things on which it acts, it cannot adopt that knowledge directly for its theory, because the *grounds of its theory must suit its perspective and purposes* (What is Archival Theory 125).

Perhaps then, this is where the ground grounding grounded theory comes from, not from some external objective reality, but from the coherence of a practice? Grounded theory is not therefore grounded and theory, it is grounded theory, which both defines and is defined by what it is a theory of.

A MODEL OF GROUNDED THEORY

In order to explain the above conclusion more clearly, a model was devised by the researcher, which was inspired in part by a reference in a paper by Dervin, Reinhard and Shen to;

> research as existing in a four dimensional space of: 1) philosophic examination of assumptions; 2) substantive theorizing about the real; 3) methodological consideration of means of step-taking both in the realm of the abstract (e.g., theorizing) and the realm of the concrete (e.g., observing, analyzing); and 4) competent and systematic execution of method (Beyond communication)

The mention of four dimensions sparked a connection with the records continuum model, discussed previously, which also has four dimensions and, as result, could be adapted as shown overleaf.

Act

Methodize

Organize

Pluralize
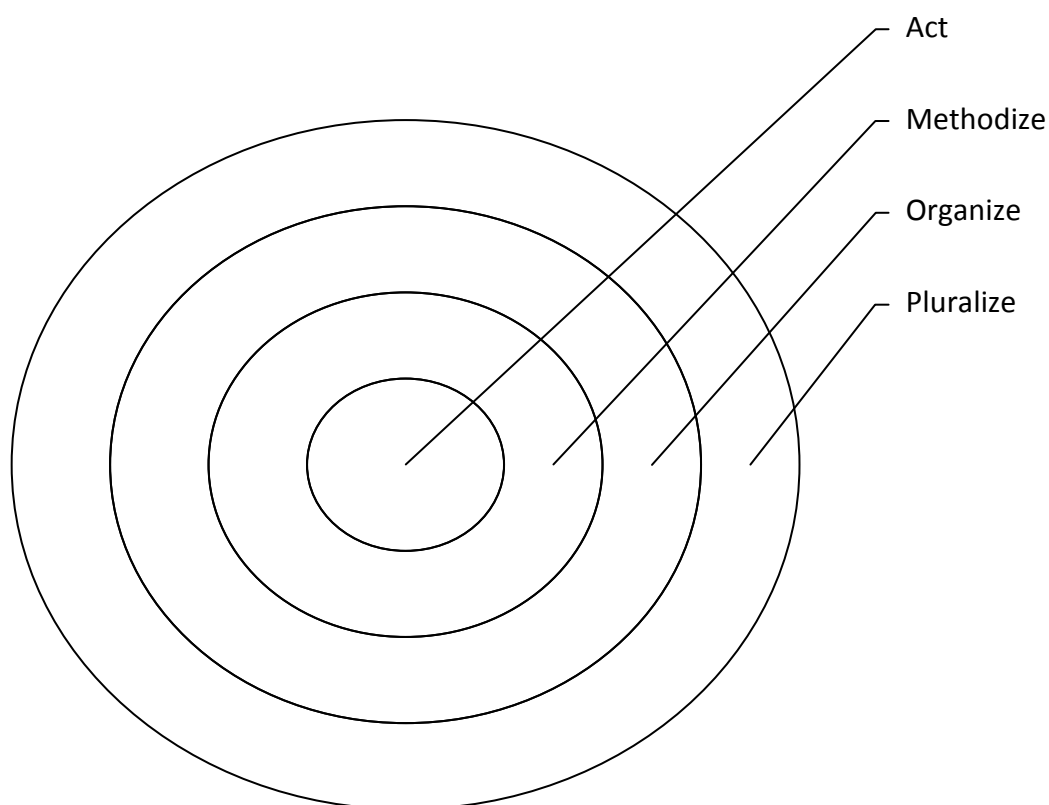
Figure 2.1: A model of grounded theory

The four dimensions may be explained thus;

- **Act.** As with 'Create' in the records continuum model, this is the point at which 'individuals as creative sources engage in particular activities' (Upward, Modelling the Continuum 122). It is, in Dervin, Reinhard and Shen's terms 'competent and systematic execution of method' (Beyond communication). It is where what archivists would term 'practice' takes place.

- **Methodize.** As with 'Capture' in the records continuum model, this is 'a dimension of routinisation' (Upward, Modelling the Continuum 122). Thus action is disembedded from its immediate context such that it can be undertaken in the same way over time. It is what archivists would

term best practice. It also equates with Dervin, Rienhard and Shen's 'methodological consideration' (Beyond communication).

- **Organize.** This dimension is where action is organised, that is to say sense is made of action and action is placed within a framework of 'Commonly navigable structures and understandings' (Upward, Modelling the Continuum 122). This is what archivists would call theory and equates with Dervin, Rienhard and Shen's 'substantive theorizing about the real' (Beyond communication).

- **Pluralize.** This dimension is the locus of what Dervin, Rienhard and Shen call 'philosophic examination of assumptions' (Beyond communication). The most common idea, in the archival discourse, which embodies this dimension is that of archives as a 'meta-discipline' (Gilliland and McKemmish 170-171). Thus, this dimension might be termed the locus of meta-theory.

Upward has written of the records continuum model that 'The circles can be read as representing a rippling outwards or a pressuring inwards' (Modelling the continuum 124). It is the four dimensions acting together that both shape the coherent whole, and are simultaneously shaped by it. Grounded theory can be seen as the process of trying to trace this constantly shifting shape. Or, as Glaser and Strauss state 'Our strategy...puts a high emphasis on theory as process; that is, theory as an ever-developing entity, not as a perfected product' (32). In some ways then, grounded theory can be seen as the quest to define that which it is defining. This makes it a suitable way to approach a lack of definition, such as the one set out in the previous chapter.

As we have seen however, this also makes it a difficult method to follow, since it involves, in a way, working blind. The reader has the advantage that they already know (if they have read the abstract) where the researcher ended up. This point may at present seem to them a long way removed from what the term archival description currently conjures up for them. If they are to follow this (narrative of the) method, they too must strive to put aside those preconceptions and

embrace the 'openness' the method requires. It is hoped, however, that following this method (over the succeeding chapters), they will eventually come to understand (although not necessarily agree with) the position reached. As can be seen from the previous chapter, the starting point from which the researcher began was very much one of uncertainty over the question of what is archival description. If the reader is then currently feeling confused about what the researcher means by archival description, they are starting from a similar position to that from which she also started.

CONCLUSION

In this chapter, the approach taken, namely grounded theory was discussed and a case made out for it being appropriate, given the nature of this research. The researcher wishes to point out, however, that this case was not made entirely in advance of the research being undertaken, but in the course of its undertaking. Previously it was stated that grounded theory tended to present itself as absenting from more academic epistemological and ontological methodological debate. The experience of the researcher has been, however, that far from this being the case, the debate is rather embedded in the process. It could not be undertaken only at the beginning and then put to one side and not considered again.

Consequently making the case for grounded theory has involved a journey. This journey started with the sense that grounded theory offered the possibility of new insights, which would both meet the criteria of originality and allow an escape from the frame of difference in which archival description seemed to be mired. Also, that it seemed to bridge a perceived gap between theory and practice. It ended with the idea that grounded theory, as the quest to define that which it is defining, was in itself one answer to a perceived lack of definition.

CHAPTER THREE – ALL IS DATA

This chapter acts as a bridge between the previous chapter and the rest of this thesis. It introduces the data from which the resulting grounded theory has been generated, against the background of a linear exposition of the research process, which outlines how the approach discussed previously came to be implemented. As such it can be read as both an expanded narrative of the journey towards making a case for grounded theory which ended chapter two, and a concise summary of the analysis which begins in chapter four.

THE STARTING POINT

As was stated at the end of the previous chapter, the starting point for the researcher was one of uncertainty with regards to a practice she knew as archival description. Nevertheless, as was apparent from the contents of chapter one, she already knew a great deal about the practice. For example, she knew that there were (at least) two different ways of doing it, one of which involved the description of a multilevel hierarchical arrangement and the parts thereof, and one of which involved the description of two types of entities and the recording of the relationships between the various entities of those types. Equally she knew how each of these ways had developed and that they both placed importance on an idea associated with the label provenance, which could be expressed in many different ways, including the following; 'the visualisation through description of functional structures, both internal and external: archival narratives about those multiple relationships of creation and use' (Horsman, The Last Dance of the Phoenix 22-23).

She knew that this practice was a central part of her profession and that her profession was undergoing what was being termed a paradigm shift, in that there was a direction of travel towards what she chose to term continuum thinking. Finally, she

also knew that the practice had, mainly in response to the arrival of the digital revolution, recently undergone a process of standardization.

What has not yet been explicitly stated was that she had practiced the multilevel hierarchical way of describing and not the series system. Also that she had, in her career to date, created paper lists (in the form of printed volumes) and contributed to online catalogues, such as that of The National Archives (UK).[1] She had also been involved with The National Archives' catalogue for born digital records, Electronic Records Online.[2]

Working from this position then, and from that of knowing that she wanted to seek further definition for this practice, she started to collect data. At this point though, she had not entirely decided upon a grounded theory approach, so the first data she collected was an extensive amount of literature, mainly from the archival science field, which dealt with subjects such as the standardization of archival description, the development of and response to the series system, the development of the multilevel hierarchical approach and so on. This reading, however, could not be said to be a literature review as it is commonly understood in academic circles, since it did not result in a 'critical assessment of the relevant literature', but rather an increase in the researcher's sense of uncertainty that she understood, in any meaningful sense, what it was she was investigating (University College London, Academic Regulations 2: 5). As the first year of the project progressed however, the researcher felt the need to stop reading and start doing. As a result, she started to collect additional data by undertaking a series of interviews.

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[1] See http://www.nationalarchives.gov.uk/catalogue/

[2] See http://www.nationalarchives.gov.uk/ero/

DATA COLLECTION

The project, from which this thesis results, has been funded by a Collaborative Doctoral Award made by the Arts and Humanities Research Council. Such awards involve the collaboration of an academic and an 'industry' partner, these being, in this case, University College London and The National Archives (TNA). Given this partnership, it was always expected that at least some of the data should be collected at TNA and it seemed sensible to start there, since negotiating access could be accomplished relatively easily and quickly. Also, since the researcher had previously been employed there, she was already familiar with the context in which she was interviewing and could expect to achieve a good rapport with interviewees, as a former colleague. Then again, The National Archives offered the chance of speaking to a wide range of individuals who, whilst all now working in an archive and records management environment, came from many different backgrounds, including IT, conservation and public relations.

The decision to collect interview data was made in the context of the researcher's continued uncertainty about her subject. An idea of the state of that uncertainty can be found by reading the document in appendix B. This document is a copy of a revised research proposal drawn up by the researcher in April 2008.[3]

The fact that this project was funded by a Collaborative Doctoral Award had meant that when the researcher started work, in September 2007, she was presented with a pre-written research proposal, a copy of which is included in appendix C. The proposal had been deliberately drawn up to be as broad as possible with the expectation that the individual who undertook it would need room to manoeuvre in order to make the project their own. As can be seen from the revised proposal however, the researcher undertaking it had, by April 2008, only changed the scope of the project in that she

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[3] This document does show though, that the researcher was already leaning towards grounded theory, although at the time, it was a different version of grounded theory from that which she finally adopted, having researched and considered the differences between the versions in more detail.

had made it a lot vaguer. Indeed, she eventually gave up on getting the proposal right and decided that, given the practical imperative of a 2010 deadline for thesis completion, it might be best to get on with some interviews.

It would therefore be fair to say that the interviews were undertaken with no firm plan and with only the vaguest of aims in mind. This, as finally expressed in the letter inviting individuals to participate in interviews, being that of providing a clearer articulation of the purpose and functions of description. Decisions concerning the constituency of the initial sample to be interviewed were equally vague. The only factors considered, in conjunction with the TNA supervisor, were; 1) the researcher's feeling that she wished to speak to people across a range, from those who were very involved with the practice of archival description, to those who were less so, and 2) who it was thought (from the combined knowledge of the researcher and the TNA supervisor of the personalities involved and the work which they undertook) would be likely to have something to say. As a result of these decidedly subjective considerations, a list of 19 potential interviewees was drawn up.

A breakdown of the individuals by the department to which they were affiliated (at the time) is included below, to give an indication of the relative spread of the sample;

Department	Number of individuals
Archives and Records Knowledge	6
Records Management and Cataloguing	5
Strategic Development	1
National Advisory Services	1
Document Services	1
Online Services and Education	1
Marketing and Communications	1
Collection Care	1
Digital Preservation	1
Information Technology Strategy	1

While awaiting responses an information sheet and consent form were drafted, to be sent to those individuals who expressed an interest in participating (see appendix D). The nature of the project meant that it had not been necessary to seek approval from University College London's Ethics Committee. Nevertheless, it was still felt to be good practice to ensure that all participants knew what their participation would involve and how the information they provided would be dealt with. The decision was taken at this stage not to name participants, since it was felt that this would make individuals more willing to take part. Consequently, in the rest of this study the participants will be referred to by letters, e.g. A, B, C and so on. The participants from The National Archives have letters in the range A-S.[4]

In the end, everyone approached agreed to take part and the interviews were scheduled for June 2008. The schedule was fairly intensive with up to six interviews a week. Unfortunately changing circumstances meant that it proved impossible to find a mutually convenient time to speak with two of the participants, one individual from Archives and Records Knowledge Department and one from Records Management and Cataloguing Department. It was decided to attempt to reschedule meetings with these individuals as a second wave after the main interviewing period was over. The individual from Archives and Records Knowledge Department was never interviewed, but the one from Records Management and Cataloguing Department was, in September 2008. This interview was however not conducted in the same way as those with the other members of TNA staff. Rather it was conducted in a manner similar to those interviews which were undertaken as a result of theoretical sampling, as discussed later in this chapter.

Seventeen interviews were therefore initially carried out and recorded in a number of locations from individuals' desks, to meeting rooms and other spaces. Interviewees were allowed to take the lead in deciding on location, the only proviso being that it was necessary to have access to a computer so that participants could illustrate what

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[4] A list of interviews undertaken can be found in appendix H. As can be seen from this list, and as is explained in following paragraph, it proved impossible to speak to one of these participants, C.

they were saying and carry out a number of tasks involving descriptive resources during the interview process. The interviews were semi-structured and, in all cases, the researcher followed the interview guide shown in appendix E.

Given the eventual decision to follow a grounded theory approach, the relatively unplanned nature in which these interviews were embarked upon came to be seen as a positive, embodying as it did the Glaser ethos of just doing it, which was mentioned in the previous chapter. What became more of a concern however as the grounded theory approach was fully recognized and adopted was the way in which these interviews were conducted. The reasons for this concern were threefold;

1) The interviews were conducted by following an interview guide
2) The interviews were recorded and transcribed
3) The interviews took place in a concentrated burst, which did not allow for any reflection on or analysis of the data being collected until considerably after the collection period had ended.

Conducting interviews in this manner broke many of the rules of grounded theory. For example, it has already been mentioned in the previous chapter that there is a rule not to tape interviews. Ultimately the argument against taping boils down to the fact that 'taping gives the researcher slow data collection and too much unnecessary data' whereby 'The research gets lost in an unanalyzed, undelimited mound of conceptually repetitive data' (Glaser, Doing Grounded Theory 109). Then again it is argued that taping stifles the development of the skill of taking good field notes and that, since grounded theory is about generation and not verification, there is no need to keep verbatim accounts as some kind of evidence (Glaser, Doing Grounded Theory 107-113). Eventually however, breaking these rules also came to be seen as a positive, as will be explained in more detail in the section below.

REFLECTION ON DATA COLLECTION

At the time, the decisions to conduct the interviews in the above ways all seemed sensible. For example, a guide seemed sensible because the researcher lacked the confidence to go in completely unprepared. Also, because she was aware, that, as a consequence of working as an archivist, she had developed a closed interviewing style, designed to bring those making research enquiries to a point where they could express in more precise terms what they were looking for, she wanted to have the questions written down in an open rather than a closed style, since the aim was to encourage the interviewees to open up rather than close down the conversation.

However, attempting subsequently to analyze why it had seemed sensible to record and transcribe the interviews and to collect all the data first and then to analyze it, the researcher was forced to acknowledge that the sense it made was based almost entirely on her own implicit assumptions about what research involved. These assumptions were largely based on the sort of 'positivist conception of science' which, as was seen in the previous chapter, Mortensen mentioned as being a major influence on ideas about archival theory (1). Being forced into acknowledging this fact by grounded theory was a major step towards the researcher's growing understanding and embracing of it.

On balance therefore, the researcher came to see the initial conducting of the interviews in a manner contrary to the rules of her chosen methodology, not as a false step, but instead as a vital first step towards a growing maturity and confidence in her own research. To the argument that she should have followed the rules from the start, she would reply that, had she done so, she might never have understood what the rules meant.

THE INTERVIEW DATA

The data collected from the interviews was clearly structured in a way which followed the interview guide employed (see appendix E). The interview guide was for the researcher's reference only and was not circulated to participants in advance of the interviews. It also underwent a few minor changes during the course of the interviews. For example, following the first interview and comments received from a fellow PhD student, questions were added to the guide explicitly questioning what individuals felt to be the difference between paper and digital description. In addition, towards the middle of the interviewing period, changes were made to the way questions B.13 and C.14 were asked. These involved a series of prompts connected to the question 'what in your view is the purpose of ...'. Answers to these prompts were often of the yes/no variety so it was hoped that asking them in the more open context of 'what is the role of description in ...' would encourage participants to be more expansive. Copies of the evolving versions of the interview guide are also included in appendix E.

The guide was roughly divided into three sections. Firstly, an introductory section asking people about their work and background (section A), secondly a section asking about their use of description in relation to so called non-archival records (section B) and thirdly a section on description in relation to so called archival records (section C). The interview guide can therefore be seen to have been informed by the distinction between records and archives discussed in chapter one (pp.30-31) as characteristic of what has been termed here non-continuum thinking. This would seem to disprove the statement, made also in chapter one (p.32) that this thesis is allied to continuum thinking.

However, the fact that questions were asked at all about description in relation to non-archival records is sufficient to evidence that this assertion can be upheld. The distinction was made purely for the sake of better reflecting the situation with which the interviewees were familiar in order that this familiarity would make them more comfortable with the questioning. For, it is the case that The National Archives

employs a distinction between records (in the sense of the documents produced to support current functioning) and archives (in the sense of the documents it is charged with keeping and making available for current and future use). This distinction can be a slippery one (which is one of points behind the development of continuum thinking) but its application is familiar within TNA and was familiar to the researcher as a past employee.

The National Archives is an executive agency of the United Kingdom's Ministry of Justice and is based in Kew in London. It holds over 11 million public records, including the records of central government dating back over 1,000 years. It is this material, which it holds under the authority of the Public Records Act 1958, which is seen as archival/archives. The main system in which this material is described is the Catalogue, but there are other systems, such as Electronic Documents Online, which also contain descriptions of it. The National Archives is also responsible for Access to Archives, which contains descriptions of archives held locally throughout England and Wales.[5] These descriptions and the practice whereby they are produced is what many would refer to as archival description. It was these assumptions, which the researcher had previously shared, but wished to question in the light of her increasing uncertainty that she knew what archival description was. For this reason she also asked about the description of so called non-archival records.

Quite apart from the 11 million public records it holds, The National Archives, as a modern enterprise also generates many records in the course of its own business. Emails, reports, minutes, policy documents and much, much more are produced in great quantities. Such material is not generally regarded as archival (although some of it does eventually become a part of the archive as public records transferred under the terms of the Public Records Act 1958). Descriptions of this material (as well as in some cases the material itself) can be found in systems such as Microsoft Outlook (emails),

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[5] The Catalogue may be accessed at www.nationalarchives.gov.uk/catalogue/, Electronic Records Online at www.nationalarchives.gov.uk/ero/ and Access to Archives at www.nationalarchives.gov.uk/a2a/

the registry database (descriptions of paper files) and Objective (the electronic records management system used by TNA to manage its current records).[6]

Subsequently, and consequent on the fact that the researcher wished to question her implicit assumptions, the data was not analyzed along the non-archival/archival distinction. It was felt that this would foreground the distinction between records and archives, rather than focusing on seeking greater definition for that something, whatever it was, which was being labelled archival description. The records/archives distinction was one of the preexisting conceptions from which this thesis sought freedom.

With regards to the interview questions asked within the sections on archival and non-archival records, some were the same and some were different. Those who are interested in the records/archives distinction might find it useful to analyze these similarities and differences to better understand what that distinction means and the assumptions which lie behind it. For example, it is noticeable that the questioning in the section on non-archival records implies much more active participation in describing, than that in the section on archival records. Questions such as B.6 'Do you ever tend to move your files around or rename them at a later stage?' can be contrasted with those such as C.4 'Of all those [descriptive resources] you've mentioned, which ones, would you say you looked at most regularly?' and C.5 'Which do you like using best and which least?' Then again, what does it mean that in the section on non-archival records wording is used about preserving evidence of the activity of TNA, whereas in the section on archival records it is preserving evidence of the past?[7]

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[6] These systems are not publicly accessible in the same way as those systems which contain the descriptions of archives listed above. Clearly, though many readers will be familiar with Microsoft Outlook and some may also be familiar with electronic records management systems such as Objective.

[7] See appendix E for a copy of the interview guide.

Given, though, that investigating this distinction was not a part of this project, attention was not paid to these similarities and differences. Rather the aim behind all the questions was to gain a sense of participants' experience and use of the description of both archival and non-archival records (as discussed above). This was informed by the fact that at the time the researcher was couching her question in terms of providing a clearer articulation of the purpose and functions of description.

The recordings of the interviews were transcribed during July and August 2008 and, on completion, the transcriptions were sent to participants for information and checking.

OPEN CODING

In September 2008, the interview transcripts were uploaded into the software package NVivo 8 and open coding began. Typically, guidance contained within grounded theory manuals made this process seem deceptively simple, when in fact it proved to be very complicated. As George Allan puts it, such guidelines as exist 'do not instruct the reader in a prescribed mechanism for performing the coding. They describe the conceptualisation of coding' (8). The information that open coding involves 'comparing incidents' and asking 'the question "what category does this incident indicate?" or "what property of what category does this incident indicate?" and lastly "what is the participant's main concern?"' only goes a limited way to providing the researcher with instruction as to what she should be doing at this point (Glaser, Doing Grounded Theory 140).

One of the traps into which the researcher fell, namely an emphasis on data organization, rather than analysis, is outlined in the previous chapter. A question, that has received some attention, but is perhaps worthy of still more, is the degree to which this trap is associated with the use of coding software, such as NVivo. For example, Lyn Richards, who has written extensively on the effects of software on qualitative research methodology writes as follows;

In a decade's papers I have argued (Richards 1995, 1997, 1998) that coding and retrieving segments of text was not what most qualitative researchers had been trying to do; when they coded data in manual methods, this was a means to gathering and reviewing, with the goal of reading, reviewing and gaining a higher level interpretation. In a decade's experience and work with researchers I have watched with concern and tried to assist researchers to avoid the growing problem I term 'coding fetishism'. When computers code so easily, the novice researcher is easily encouraged to keep coding, so the act of coding becomes an end in itself. (Richards 269)

In the researcher's experience, it is this potential trap that should cause researchers (novice ones in particular) to be circumspect in their use of coding software, rather than the reason given by Glaser, that it builds 'into research implicit assumptions, systems and formulations' (Glaser, Doing Grounded Theory 186). Escaping it was not therefore just a matter, as discussed previously, of abandoning the imposition of a structure through the creation of trees of nodes (pp.50-51), but also of viewing the data, not as something to think about, but rather as something to think with.

It is perhaps not co-incidental that the period at which this analysis process was being undertaken (September 2008 to March 2009) was also the period in which the researcher was gaining a much deeper understanding of grounded theory, through reading and attendance at a training course run under the aegis of the Grounded Theory Institute. Experiencing coding in practice forced the researcher to finally understand the tenets of openness and emergence. She then consciously chose to embrace them fully and from this point onwards therefore, the whole process became much less structured and much more iterative, as will be outlined below.

In addition it was also during this period, in January 2009, that a seminar for the participants from The National Archives was conducted by the researcher, in order to ensure that they could see that some result had arisen from their participation. At this event, she outlined her thinking to date. At this point, the data analysis was at a very early stage, but the themes which were mentioned at the seminar were storing,

organizing, containers versus groupings and locating. The slides on these themes can be found in appendix F. Further detail of the themes which emerged during the open coding process will also be found in the chapter four.

THEORETICAL SAMPLING

As was mentioned in the previous chapter, embracing openness and emergence meant that it was difficult to decide in which direction to take further data collection. By March/April 2009 the themes which had emerged most strongly were those, labelled at the time, delimiting, connecting, locating and understanding. In an attempt to allow these themes to inform the sampling in the second phase of interviews, emphasis was shifted onto the digital environment, in the hope that, in particular delimiting and connecting, could be explored without the added complication of physical/digital limits and boundaries. In this respect, an attempt was also made to ensure that the individuals interviewed dealt with a range of data, from that which was itself delimited (databases etc) to that which was less so (film, audio, etc). Then again, researchers and those involved in academic research were identified as possibly particularly concerned with locating and understanding in the context of creating a coherent whole in the form of a directed piece of research, rather than in the abstract as seemed to be the case with those who were archivists.

The researcher then approached individuals who seemed to fit the criteria outlined above. Not all approaches were met with success, but eight further interviews were eventually carried out between May and October 2009. Two of these interviews involved more than one participant (two in one case and three in the other) and interviewing in this way allowed more data to be collected more quickly. A total of eleven participants were therefore interviewed and these individuals are identified within the thesis by the letters T-Z and then AA-DD. Of these participants, five individuals worked in archive environments, three were researchers undertaking doctoral research and three were engaged in considering the implications of the digital

revolution on and for academic research. Of the five individuals working in archive environments, two dealt mainly with film and audio material, one was concerned with paper records, but had employed new technologies in the process of cataloguing them and two were primarily concerned with digital records. All the participants were UK based.[8]

As with the participants from TNA no further information on these individuals will be provided. This is partly to preserve their anonymity, and partly because, in line with the grounded theory tenets of openness and emergence, their particular contexts are not automatically assumed to be important. As Glaser has written; 'theoretical codes, *like context*, must emerge as relevant: earn their relevance' (emphasis added) (Naturalist Inquiry 10).

For this second phase of interviews, a revised information sheet and consent form was drawn up. A copy can be found in appendix G and it shows how the researcher had moved towards more fully embracing the idea of grounded theory. Consequently these interviews were conducted more in line with the rules of grounded theory. For example, the only interview guide that was employed at this time was the emergent state of understanding in the researcher's head resulting from the continuing and ongoing process of data analysis. Then again, instead of taping and transcribing, the researcher instead took notes during the interview, which were then written up afterwards for circulation to interviewees for checking. On occasion interviews were still taped, in order that the researcher could refer back to the tapes as an aide memoire when writing up the notes, but the few audio recordings so created were very rarely listened to again.

This new way of conducting the interviews certainly speeded up the process and allowed the analysis and collection of data to be carried out in a much more iterative fashion. It prevented the researcher from falling into the trap of 'coding fetishim' discussed by Lyn Richards above and moved the research into a much more generative

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[8] See appendix H for a list of interviews undertaken.

and creative phase (269). The difference, which following the rules of grounded theory made, was noticeable and it once again aided the researcher to gain a better understanding of her chosen methodology.

SELECTIVE CODING

As a result of the second phase of interviews and the ongoing open coding, a core was provisionally identified in the form of a seemingly irresolvable tension. This tension was initially modelled as the intersection between control and communication, although it later (during the selective coding) became clear that control and communication were not so much opposite sides of the tension as different ways of looking at it.

At this point, a new set of data was introduced into the analysis. This data did not come from interviews, but took the form of articles and other writings, such as those encountered in the early stages of the research. This data is therefore referred to as the literature data, rather than the interview data (which encompasses the data collected from both phases of interviewing outlined above).

Literature can be seen in both a narrower and a broader sense. In the broader sense it can be seen as written or printed material such as poetry, novels, plays, articles in academic journals, leaflets and so on. In the narrower sense, however it tends to be seen as the body of such material which arises from a particular language, a particular culture, a particular academic discipline etc. Within a PhD it is traditionally held that there should be a literature review, but, as we have seen grounded theory, rules against such an undertaking. A few words of explanation about the position of literature within this thesis are therefore required.

Essentially the position taken is that literature should be seen in the wider sense and as such should be seen as just another form of data, that is, written observations made

by individuals in the same way as the transcript of an interview can also be seen as the observations of an individual written down. As will become apparent, the literature used as data within this thesis is not limited to that which is generally seen as belonging to the discipline of archival science. Where it has informed the argument set out in this thesis, this data (like the interview data) is properly cited and referenced.

Nevertheless there is a chapter at the beginning of this work that sets out a question and a context in which that question is being asked. Is this a literature review? Some might see it as such, but then again what is a literature review? As Rowena Murray writes; 'There are many different definitions and purposes. Most reviews have more than one purpose' (108). Some of the purposes she then goes on to list, e.g. 'to provide a context for your work' and 'to give an overview of the 'big issues' are those of chapter one, but others, e.g. 'to evaluate other people's work' are not (113). In this regard, she goes on to highlight that 'The literature review is not just a synthesis of other people's work; it also synthesizes your work with theirs' (114). This thesis takes the position that such a synthesis is better represented by a discussion of the literature throughout the thesis, rather than just in one particular chapter designated the literature review. To gain a sense, in this case then, of the synthesis of which Murray speaks, the reader should look towards chapter five onwards.

The literature data introduced at this time consisted of all the articles and other written material the researcher had read. As such it was a constantly expanding data set, since reading was a continuous part of the process. To gain a sense of the boundaries of this set, the reader is referred to the 'works cited and consulted', listed at the end of this thesis. The selection of the literature to be read was in itself a form of theoretical sampling, for what was read (or re-read) was driven by the themes which had emerged during open coding, namely an irresolvable tension, initially modelled as the intersection between control and communication.

The step to introduce the literature data was felt necessary, for the following reason. Iterative analysis of the interview data had led to an ever increasing distance between the ideas emerging and the data from which they had emerged. This meant that it was

correspondingly difficult to move between them in order to benefit from the generative aspect of that movement. Utilising more abstract and theoretical observations (such as those contained with the literature data) therefore allowed a shortening of this distance such that the resulting intensified debate could push the ideas further forward.

Selective coding was not undertaken using NVivo. Rather it took the form of an extensive memo writing process that sought to focus on the two ideas of control and communication by interrogating them with the new data set. It resulted in two extensive pieces of writing entitled 'Random notes on control' and 'Random notes on communication'. The use of the word random emphasised the fact that these memos were not structured in any formal sense. They were not intended to be coherent wholes and indeed the researcher found it impossible to write them as such.[9] Rather they tended to consist of lots of little sections such that a thread was followed until what seemed to be its end, before another thread was picked and followed. In both cases, however, it was notable that wherever the researcher started, she always seemed to end up in the same place, namely with the sense of a seemingly irresolvable tension. This, the researcher now chose to label, the paradox of autonomy. It was the way in which both approaches seemed to lead to the same idea that convinced the researcher that she had reached the point of so called theoretical saturation.

THEORETICAL CODING

Theoretical coding is associated, within classic grounded theory, with the idea of integration and with the process of the 'hand sorting of memos' (Holton 8). In strict classic grounded theory terms, the researcher can be seen to have overlapped

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[9] The early weeks of 2010 were spent attempting to write a chapter on control. This attempt was eventually abandoned as the researcher came to the conclusion that this was again a forcing of structure at too early a point in the process. The whole had not yet fully emerged.

selective and theoretical coding to a degree. Certainly those members of the Grounded Theory Institute who have constructed the Grounded Theory Online website might think so, as the process being outlined here clearly blurs stages five, six and seven, as outlined in their description of a classic grounded theory project, e.g.

> **5. Conduct selective coding and theoretical sampling;** Now that the core category and main concern are recognised; open coding stops and selective coding – coding only for the core category and related categories – begins. Further sampling is directed by the developing theory [...] and used to saturate the core category and related categories. [...] When your categories are saturated:
>
> **6. Sort your memos and find the Theoretical Code(s)** which best organises your substantive codes. [...] When you feel the theory is well formed
>
> **7. Read the literature** and integrate with your theory through selective coding. ("What is Grounded Theory")

Then again, the use of the term 'selective coding' in stage seven would suggest that this overlap is inherent in the process, even though it is difficult to express when constructing a linear set of procedures. For further detail of this selective/theoretical coding process see chapters five to eight. In many ways this process is still ongoing, since grounded theory 'puts a high emphasis on theory as process; that is, theory as an ever-developing entity, not as a perfected product' (Glaser and Strauss 32) Nevertheless, completion of a doctorate requires the submission of a thesis and that, in turn, requires writing up.

WRITING UP

Writing the structured narrative required initially proved difficult in the light of reconciling it with the tenets of openness and emergence which were so central to the approach taken. Eventually however, this tension was resolved by the idea that what had emerged from the research was a complex (and ever evolving) understanding of

archival description. That the researcher had now, necessarily, to impose a structure which allowed for that complex understanding to be presented to the reader did not represent a denial of the tenets of openness and emergence which had been so important in its generation. And so, the question was not how to structure the researcher's understanding, but how to structure its presentation.

The first attempt to do so resulted in a tripartite structure with three chapters entitled 'Parts of the Whole', 'New Parts for Old' and 'Making the Leap from Parts to Whole', the last being a quote from the title to a recent article on archival description by Jennifer Meehan. In retrospect, however, this attempt came to be seen more as an extension to the selective/theoretical coding overlap mentioned above, since it served as a way to more fully integrate the emerging understanding through an attempt to integrate it with existing ideas about archival description. It was noted, however, that this way of presenting the whole had the benefit of taking readers on a reassuring journey from existing ideas and concepts to potentially unsettling new ones, one which would encourage them to be convinced by the argument in that way being set out. And yet, it also had the disadvantage of presenting the new ideas at the end as the result of a natural evolution and thereby disguising the way in which they had actually evolved – through the conduct of the artificial process outlined here.

Should then, the structuring reflect that of the process undertaken? Perhaps, but in doing so there lay the danger that what would be presented would not be the complex whole which had emerged, but rather a series of simpler wholes, the products of each of the various stages outlined above. The resulting thesis might not therefore demonstrate that it 'is an integrated whole and presents a coherent argument' (University College London, Academic Regulations 2: 5). In the grounded theory spirit of having it both ways then, the decision was taken to adopt both approaches.

The mixture that has resulted can be seen, for example, in the preceding chapter, where the construction of the argument that grounded theory was the best approach for tackling the perceived problem initiating this thesis was presented as a whole whilst the process by which that whole had emerged was still acknowledged. It can be

seen even more clearly in this and the following chapters. For, after this summary of the whole process, more attention will be paid in chapter four to the aspect of that process whereby open coding started to coalesce around the form of a seemingly irresolvable tension, modelled initially as the intersection of control and communication. Chapters five to eight then continue that narrative and outline the way in which selective/theoretical coding led to this tension taking a new form, which was termed the paradox of autonomy and resolved by a concept known as autopoiesis. Within this account, chapters five and six describe that part of the process of selective/theoretical coding where the emphasis was more on phase five (as outlined above), whereas chapters seven and eight describe that part of the process where it lay on phases six and seven. Finally chapters nine and ten will discuss how, as the result of this process, the researcher's understanding and conception of archival description altered and how she now views the question 'what is archival description?'

CHAPTER FOUR: SEARCHING FOR THE CORE

This chapter will attempt to trace out the process of open coding undertaken using the interview data discussed in the previous chapter. In order to recreate an experience of this process for the reader, sections of this chapter have been constructed in a stream of consciousness. Ideas can be seen to be falling out of ideas, tumbling over themselves as the data is picked apart and then picked apart some more. These sections do not seek to present an argument, but to act as a (worked up) record of some of the researcher's thought processes during open coding.[1]

These sections are interspersed with others which seek to review those thought processes and to make explicit for the reader, what was, until the writing of this chapter, largely implicit for the researcher, the traces that led to the impression of a seemingly irresolvable tension, whereby there was always another side to consider and many of the ideas encountered seemed also to embody other, seemingly contradictory, ideas. These ideas will not be explored in detail, but rather roughly sketched out, since what was, eventually, taken away from this exercise was not these ideas per se, but rather the impression of a tension, which came to be modelled as the intersection of control and communication.

In the following, there will be much more evidence of interview data collected from The National Archives (TNA), rather than interview data collected (in the second phase) from individuals not employed at TNA. There are two reasons for this. The first is that, as was discussed in chapter three, the interviews undertaken at TNA were transcribed, whereas those in the second phase were not. As a result it proved harder to find quotable extracts from this later phase of interviews. The second reason relates to the way in which, again as was discussed in chapter three, the interviews at TNA and the initial analysis of them was undertaken in a very linear fashion. The researcher had not at this point fully

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[1] An example of the records made of these processes at the time, upon which this worked up record is based, is included in appendix I.

embraced the tenets of grounded theory and became fixated on this data, rather than the ideas that were being generated through her analysis of it. She therefore worked extensively on it and did reach the stage, as Glaser had warned was possible, of getting lost in a 'mound of conceptually repetitive data' (Doing Grounded Theory 109).

The second phase of interviews, conducted as it was in a more iterative and fast moving manner was the catalyst, which allowed the researcher to see the ideas, rather than the data. However, given that she was, by this time very familiar with the interview data from TNA, she found it easier to express these ideas in terms of that data, rather than the new data that she was collecting. In a way then, the process of conducting the second phase of interviews served to crystallize the ideas, but the product of the first phase of interviews served to give those ideas expression.

Another apparent bias that will be noticeable in the following is that it is the data collected in relation to description of so called non-archival records, which is quoted, more than that in relation to the description of archival records. The non-archival/archival distinction has been discussed in the previous chapter, where the decision to ignore it in the analysis of the data was explained. Nevertheless, this bias was noticeable and the researcher came to the conclusion that it resulted from the fact that more of those interviewed were actively engaged in doing description in respect of non-archival records and it was understanding this process of describing, which seemed to offer the key to the understanding the researcher was seeking.

PICKING THE DATA APART (1)

The main concern of those interviewed appears to be that they want to be able to get on with what they are doing, be that their job, or a personal activity such as investigating their family history. It is clear that when they are prevented from

doing so, they feel considerable frustration or annoyance, e.g.

> Well, if it says this page cannot be displayed [...], I mean I just get
> annoyed by the fact that a machine seems to have a mind of its own (O)

> I mean the frustrating thing is [...] when you search the catalogue [...] and
> it's not at all what you're looking for (P)

One participant expresses the idea that recordkeeping can be one of the things that interferes with individuals' ability to get on with their jobs, e.g.

> he says [...] we're the records specialists, we'll just have to bend over
> backwards and [...] not clog up the desk [...] with our tools, we should try
> and make it as seamless as possible (S)

Seamless seems to carry a sense of effortless and avoiding effort is also a concern, e.g.

> I'm too lazy to use the library catalogue, I'd rather go to the library and
> ask them to look it up for me (O)

Seamless also carries a sense of continuity, as in an unbroken flow and The National Archives 'Seamless Flow' project.[2] This ties in, in a way, with the idea of just getting on with your job, seamlessly, without any disruptions. Of course, the job outlasts the individual, e.g.

> I'm relatively new to this role [...] so there's still an awful lot of stuff that
> was created by [...] you know in the five years or so that she did the job
> that's quite good for me to know (M)

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[2] This project was undertaken at The National Archives between 2005 and 2008 'to secure a seamless transfer, storage, preservation and presentation of electronic records' (The National Archives, Seamless Flow: Programme). Although not mentioned by any of the participants, the researcher was aware of it from her prior employment at The National Archives.

The individual is experiencing change, the organisation is experiencing continuity. In order to continue in the role M needs access to the work of her predecessor. This is held in the main file plan of TNA's electronic records management (EDRM) system Objective, which can therefore be seen as a shared store for documents, spreadsheets etc. [3] Once something is placed in this store, there appears to be an unspoken rule that it should not be changed, e.g.

> Certainly don't re-file things in the file plan and I kind of felt that was discouraged (B)

This reluctance seems to stem from a belief that such changes make it very difficult for others to access the material stored there;

> they'll have searched for something and you know made an alias or whatever and then the next thing you know you've moved it and no one else can find it anymore (M)

An alias is a form of link within the Objective system. The general perception seems to be that moving a file or renaming it will break any previously created links, so that they no longer lead where they once did.

PICKING OUT THE TRACES – CONTINUITY AND CHANGE

In the above it is possible to see a trace of a seemingly contradictory idea being encountered. The label eventually used for this idea was continuity and the choice of that label was undoubtedly influenced by the term's currency in the archival field to encompass a strange mix of change and yet no change, in the context of digital preservation. Thus, TNA had, at the time, a project entitled 'Digital Continuity' which it defined as 'the ability to use digital information for as

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[3] Generally speaking all staff members have access to the main file plan, although access to parts of it can be (and is) restricted to smaller groups of staff by the setting of permissions.

long as you need to, over time and *through change*' (emphasis added) (The National Archives, Digital Continuity). Then again, Archives New Zealand had its own 'Digital Continuity Action Plan', launched in 2009 and it defined digital continuity as follows;

> Digital continuity – the ability to ensure digital information is accessible and usable by those that need it for as long as it is needed. Digital continuity conveys notions of *persistence*, continuation of resources, efficiency and *stability*. (emphasis added) (Archives New Zealand 11)

Encountering this idea, the researcher wrote a memo on the subject of continuity and change, which included three further associations. The first was with the idea of activity, in that to continue doing something you need to do something and that is going to involve change. The second was with the idea of organic, in that organic entities (the examples used were human beings and The National Archives) had to change to continue. The third was with the idea of the closure of files as marking the loss of their, what was termed, organic-ity. This last was triggered by reflection on the main file plan, mentioned above, and discussed further below.

PICKING THE DATA APART (2)

The National Archives has recently 'closed' its main file plan and introduced a new one. Individuals speak of the old file plan and the new file plan to make the distinction. If the main file plan is seen as a shared store, then material is no longer being stored in the old cupboard, but in a new one. What was previously stored in the old one remains and one individual speaks of 'a lot of moving round recently with transferring things from the old file plan to the new file plan' (M). One of the reasons given for this change is as follows;

the other comment was, having run it [the 'old' file plan] from 2003 for about 4/5 years, there were middle managers coming in, who recognised their team was, either doing something different, or they just had a different approach to doing the task, and they wanted to draw a line under the old pattern of work and start again. There wasn't the same habit of doing this. Nobody considered closing files, which, to a large extent, mimics what we used to do with the registry files [the paper filing system employed at The National Archives before the introduction of Objective] that we had cycles of registry files, they ran for about five years and then we drew a line in the sand and started again (S)

Is it the case then, that, given that individuals are reluctant to change anything in the main file plan (because of the perception that this then makes it difficult for others), the structure of the file plan stagnates, until it eventually becomes so out of line with the way the work is structured that it no longer works?

Is there a distinction to be drawn between storing (physical) and working (logical) structures? The main file plan is a storing structure which can expand (more storage space is always needed), but which must remain stable, e.g. if the racks of mobile shelving kept moving between repositories it would be difficult to store and retrieve things in that structure. It is not, however a working structure – that would be TNA's organisation chart, or perhaps the way an individual mentally splits up the tasks they are allocated, e.g.

'[my home folder is] divided up into sections of my work that I know' (D)

I've been here about three months now and I am finding which folders I need and how I need to work so I am particularly, in my personal space, I am rearranging things (N)

In both of the above cases these working structures are not being created within the space of the main file plan, but within the individual's personal folder (also

known as their home or handy folder) which is a separate virtual space in which they can store digital records and to which only they and the systems administrators have access. That these more dynamic working structures are created in a place where consideration for others is not an issue, cannot be coincidence. Is there a correlation here between physical and logical view, as employed in relational databases, whereby the physical view is about the way the data is stored and the logical view (or views) is (are) the way that the users work with the data?

PICKING OUT THE TRACES – CONTAINERS AND GROUPS

In the above, it is possible to see one reason why the label 'control' came to be used. This idea of a distinction between storing and working or physical and logical resonates with an idea of intellectual and physical control, which is traditionally associated with archival description (by archivists). Thus, for example, one member of staff at TNA, a graduate of a university course in archives and records management, when questioned about the purpose of description, stated; 'it's control, it's intellectual and physical control like we learnt on the course' (N).

Thinking about the difference between storing and working eventually led to a memo, which outlined a distinction between containers and groups. This memo discussed the following ideas. Both containers and groups keep things together (both mentally and/or physically). However whereas a container's existence is not dependent on the things it contains, a group's existence is dependent on the things in that group (it exists by virtue of the fact that a number of things have something in common). The boundaries of a container are hard - you cannot be in that container unless you are put there - but those of a group are not - you could be a member of that group even if you are not recognised as such. Sometimes groups and containers can overlap - you could put all the red lego bricks in a box - but the contents of a container need not be a group (if the only

thing things share in common is that they have all been put into the same container this is not a true group in my opinion). A container allows you to store and transport things more easily, a group does not.

There is clearly a tension here, between the boundaries of containers and those of groups, between boundaries that are 'hard' and those that are not. These ideas were also influenced by another incident that arose from the recent changes to the file plan. With the introduction of the new file plan, restrictions were put on the depth of the file plan's structure, such that individuals could not create additional folders below a certain level. This had caused some annoyance and led to one individual stating that;

> if you can't group things by putting them in a sub folder, you're going to have to group them by naming which is much more hassle (A)

PICKING THE DATA APART (3)

Some people do appear to create working structures within the main file plan and in these cases, the reluctance noted earlier to effect change there appears not to be felt, possibly because such changes are not seen as being undertaken in a shared space, but rather in 'my little area' (I)? There is an apparent extension of ownership, e.g.

> I suppose I'm probably one of the savers who colonises a bit of the corporate file plan and makes it my own [...] I mean I do save everything into the corporate [file plan], I save very little into my handy file (H)

Those who work in this way have been affected by the recent introduction of restrictions on the depth of structure that can be created in the main file plan. Some are annoyed, e.g.

> which brings me to a very sore point because you may or may not know
> that they've recently reviewed the [main] file plan [...] you can only have
> two levels so, you know, this sort of level structure. Now I can show you
> [...] how I structure my projects and it doesn't lend itself at all to the file
> plan that they've developed here because you can only go down one level
> (G)

A solution has been found, but it involves asking one of the system's administrators to make changes, which is also annoying for some.

One reason given for this new restriction is as follows;

> The reasoning behind the shallowness was that [...] in the past there
> would have been a single file and people just kept adding more and more
> stuff in it, but, by making it shallower, it is to encourage them to have
> more files so that the files will be closed in a timely manner and then we
> can start applying appraisal (S).

Some have noticed that a shallow structure means things are easier to find/closer to the surface, for example, when asked if she found the new file plan easier, one individual replied;

> to some extent yes because we're closer to the top of it, whereas before I
> had to go down about ten levels before I got to the equivalent (E)

There has therefore been a flattening of the hierarchy, and, before the solution mentioned above was found, it had been suggested that those who liked deep structures would have to;

> create a very long file name, so, for instance, if you had something like, in
> my case I would have a folder called procurement and then in another
> folder I would have the names [...] of each of the companies that were

being procured. Yes? [...] Now we're not allowed to have that depth of folder so what they're saying is [...] that you would [...] say procurement, company name and so on and that relies on people actually keying those words in every single time. Now I have to say apart from the fact that then when you look on the screen you get an enormous long list of file names there must be errors being introduced (G)

This must be about scale, S is one of the system administrators for Objective as a whole and is concerned with all the files in it, G is only really concerned with his own files. With regards to those files, if an alternative solution had not been found, G would have had to have added more description – by which means he could have created groupings in the display – as everything which started with procurement would appear together despite not being placed in a container called procurement.

PICKING OUT THE TRACES – INDIVIDUAL AND ORGANISATION

In the above it is possible to start to discern another tension, that between individual and organisation. This tension was most obvious in the distinction between the main file plan and the personal folder. As was mentioned above these were both virtual spaces, one of which was common to the organisation as a whole (and generally accessible to all members of staff) and the other of which was only accessible to the individual (and the system's administrators). Within each individual's personal folder, another folder was always automatically present, called 'private', and the idea was that system administrators would not go into this folder unless there were compelling reasons.

When explaining what goes into their personal folder as opposed to the main file plan, one idea that comes across strongly is that what goes into the personal folder is personal to the individual, such as flexi time forms or 'personal stuff' (H). The personal folder is also for;

> things like [...] conferring with HR about stuff and things like that that I keep as a backup (B)

Thus, there is the sense that some individuals do not trust the main file plan entirely and therefore wish to keep copies of that which is important to them so that they can be sure that nobody messes with it. One individual relates the following bad experience in the past, e.g.

> Within my home folder, I've got a thing called a rescue folder. [...] Stuff [...] got moved around in the file plan by someone else with no links and when I eventually found where it had gone I moved it all back into my home folder and then put links, sorry copies, back in the file plan, but considering it was stuff that nobody should have been working on I was a bit cheesed off about that (B)

B sees this as having made her a little bit 'paranoid', but that paranoia seems to be justified. She tells another story in connection to how supposedly confidential performance agreements were actually accessible to all, e.g.

> performance agreements, they're all in Objective now and [...] because I'm suspicious, when my one got filed into my little area I thought I'm going to check this so I asked somebody to see if they could open up the folder and of course they could, not only could they open it up they could edit it (B)

There is a high level of awareness of confidentiality issues, but some do have trouble with setting the permissions in the main file plan and therefore use their personal folder as a way of limiting access to material, e.g.

> I'm not very good at setting up the protection level so people can't see things, so, if I'm working on something like a job description, that I was apprehensive about, that I didn't want other people to see[...], then I might put that in my handy (H)

Quite apart from issues of confidentiality, however, there is still this sense that individuals seem to like to keep what they seem to see as their own records separate from those of the organisation. The two sets of records overlap, but do not coincide. Could this be recognition that the organisation and the individual do not necessarily always share the same interests, e.g. people speak of what goes into the personal folder as 'stuff that I'm keeping for my own information or purposes to remind myself of something' (M). It also seems that individuals can to be quite vague in the reasons why they might keep something for their own use, such material is not so directly connected to an activity (currently being undertaken by the organisation/individual) as perhaps that in the main file plan is, e.g.

> *What do you tend to put in your own, anything you're working on or?*
> Yes, anything that's a draft and also things that I come across that I think might be interesting and/or useful, but have no definite use (B)

> this is just useful stuff that's been sent round by colleagues that yet isn't for the main file plan but that I might find quite handy to refer back to (M)

The mention of draft and also the use of 'yet' hints at another factor governing whether something is placed in the personal folder or the main file plan, which seems to involve the degree to which that thing is seen as complete. This seems

to be mixed up with 'corporate value' status. Within the Objective system, individuals can assign material in the main file plan 'corporate value'. It cannot then be deleted except by one of the system's administrators. Recent changes have meant that corporate value is now the default, whereas previously it had to be selected. This has led to comment as some do not like to assign corporate value because it limits their ability to subsequently delete material, e.g.

> a lot of these things have now got corporate value where we didn't intend them to [...] because it's now default and it used to be [...] the other way round (E)

> I usually don't put corporate value on anything because you can't delete it and I've learnt that you have to then go to [...] whoever it is in charge of Objective to delete it for you so I never put corporate value (O)

Apart from this concrete result of corporate value, there is confusion about what corporate value means and that confusion is recognised, e.g.

> there is a lot of confusion over [...] corporate value and I think that [...] there is a school of thought that would suggest that you should do away with stuff like that, if it's going in the [main] file plan, it's of corporate value (M)

This would seem to suggest that corporate value defines what is of value to the organisation (rather than the individual), what the organisation needs to keep, rather than what the individual needs (or wants) to keep, e.g.

> It's [the decision to put something in the personal folder or the main file plan] partly whether I think it is corporate or not [...] if it's corporate then it needs to be there (D)

It also seems, however, to be associated with being complete, e.g.

the other area of confusion viz Objective is that I'm sure some people view the file plan in a way that's akin to registered files as a place for completed work whereas I maintain that if Objective has got tools in it such as indicating that something is in draft or who the last person is to work on it we could get more out of it if we use it for that collaboration. I mean your home area you can't collaborate because no one else can see it [...] you can use the tools of Objective to collaborate but you need to do that in a shared area and the way that you mark something off as completed and record worthy is giving it corporate value (S)

Certainly many express the view that they work in draft in their personal folder and then transfer documents into the main file plan once they are 'finalised and finished' (A). With an eye on collaboration, however, individuals also speak of how they will put material into the main file plan when 'I feel I want to share [...] with other people' or 'when it's ready to be shared' (J; B), e.g.

the main file plan everything else I'll put in the main file plan so if it ought to be shared (M)

then as soon as they need to start being sent to other people for sign off they'll then go into, into the file plan (P)

It is unclear how the boundaries between draft and completed and not for sharing and needing sharing coincide or otherwise.

PICKING OUT THE TRACES – COMPLETENESS AND COHERENCE

It is possible here to see the circular way in which ideas were encountered and the difficulty of untangling all the various threads. For, in the above, as well as the individual/organisation thread, there is also an echo of the storing/working thread in the guise of a sharing (the finished version)/collaborating (in producing

the finished version) tension and these later threads again resonate with those of continuity and change, containers and groups introduced earlier. There appears to be a difference between those who place their 'finished' work in the main file plan store so that it can be shared with others and those who put in process work in the main file plan space so that they can collaborate with others in working. What is finished is not subsequently changed, what is being worked on does change.

This prompted thinking around the idea of completeness. A lengthy memo was written by the researcher, which pulled out the following ideas. Firstly, an association between completeness and process, since work seemed to be seen as complete when the process or activity associated with it was finished. Thus, for example, with regards to emails, one individual spoke of the point at which she would transfer an email from Outlook into the main file plan of Objective as follows;

> When it's a thread, it's when I think we've come to a conclusion or decision and as I said sometimes it can be thrown sideways because it turns out somebody hasn't come to a conclusion at all (B)

The end of the decision making process provided the end, the conclusion, the decision, the limit that defined completeness for the participant, but that end could be different for different people.

Secondly there was an idea about the degree to which completeness implied or did not imply a sense of entire, whole, nothing missing. One individual, a doctoral student in English Literature stated that 'the challenge of research was what to leave out' (W). Then again, in the following B seemed to be saying that a complete record could be weeded, so would this mean that what was left after weeding would not be complete?

> I kept all those emails because that was where they were discussing how much things were going to cost and why and I filed all of those as soon as I got them and what I will do at some point is to go back and weed out ones that have been superseded, but basically I thought I'm keeping a complete record of them. I didn't want anything to go missing (B)

How then, did completeness become qualified by its association with record? Perhaps complete meant something slightly different with regards to record? Perhaps it also carried connotations of coherence.

This was the third association noted, for example, one individual seemed to suggest that the paper lists with their introductory note were more coherent than the online catalogue, e.g.

> It's more coherent if you use the introductory note, because, although in theory the contents of the introductory note ought to be in the catalogue content, it isn't always (D)

This perception that some information had been lost in the translation from paper to the online catalogue was one the researcher was aware of, since she had heard it expressed by various staff members during her time at The National Archives. Equally she was also aware that those involved in the transfer were adamant that no information had been so lost. Which view was correct it was impossible to ascertain, but perhaps introductory notes were more coherent in that they had everything relating to the subject in one narrative, rather than being split up between various different fields within the online catalogue? To be coherent then did there have to be only one story, one thread, was this what made it complete in the sense of coherent (sticking together as a single thing)? Would therefore having multiple narratives threaten coherence?

Then again the first and third of these associations also seemed to come together in some way with the following;

> I find my areas get clogged up with old stuff that I've done and dealt with
> so sometimes I find myself creating [...] an old stuff folder and just putting
> it in because [...] I want to get it out of the area that I'm currently in (R)

This seemed to suggest that when something was done (complete) there was a
need to clear it out of the current area in order to make that area more
coherent. Was it currency that made that area coherent, or the fact that it did
not have too much in it?

Fourthly, thinking about completeness led to a consideration of the implications
of full text retrieval. One individual remarked that;

> finding material in the future will be done through various kinds of search
> only on the full text of the document (J)

And another that, with regards to The National Archives wiki Your Archives,
which allows individuals to write about the records held by TNA and publish that
information online;

> We'll get a person [...] picking out a single piece from a single series and
> giving a really full description, or quite possibly even a full transcription of
> that document and that then flies in the face of everything that
> professional archivists do (A)

This last comment was taken to refer to the so called 'rule against bias' which is
outlined in, for example, Cook and Procter's *Manual of Archival Description* (29-
30). This rule states that 'Descriptions should accurately reflect the actual
content, meaning or significance of the original they represent' (29). In order not
to contradict the 'rule against bias', an archivist might hesitate to give a full
transcription for only one piece in a series because that might convey the sense
that that piece has a greater significance than the rest. It would lead to a 'lack of
uniformity' which could be seen as not purely down to chance or accident, but

rather as conveying some significance (30). A sense in which this might be a valid concern comes through in the following, when an individual was talking about the way in which notes were sometimes present in the catalogue which directed the reader to related records;

> It's so variable, depending on the work that people have done, there are often quite voluminous references and notes to lots of other series, sometimes there's nothing and you don't know whether it's because there are none [...] or whether no one has done it (J)

This suggested a tension such that the complete holdings of a repository should ideally be treated in an even handed way, such that nothing in particular stood out, and yet, of course, archival description was also about making the particular stand out so it could be identified. It also hinted at ideas around connection.

PICKING THE DATA APART (5)

When asked directly about the purpose of description in connection to records, the most common response is that it is 'to find them'. There also seems, however, to be a distinction between finding and finding again, e.g.

> [the purpose of describing records is so] we can find it again and so we understand what we're looking at if we don't know what it is in the first place. So, if you already know what it is, it's being able to find it and if you don't know what it is it's understanding what it might be without going to actually looking at it (R)

Finding it again seems to imply that you already know what it is, but what does that mean? Could it mean that you already have a connection to it? You have made the connection previously? Is finding, therefore about making that initial connection? For example, when presented with a file in Objective, which

contained the number 5.2 and the term 'screen designs', and asked to guess what it was, one participant spoke as follows;

> 5.2 means absolutely nothing and there's no, I wouldn't know where to find the list that tells me what 5.2 was in relation to anything else (A)

Then again, another made the connection through her prior knowledge of the researcher; the file in question having been introduced as one which the researcher had created during her time at The National Archives, e.g.

> I mean I know you've got the title screen designs
> *Screen designs for what? [...]*
> The catalogue
> *The catalogue?*
> The catalogue, but only because I know who you are (K)

Making connections therefore, seems to facilitate an understanding of what something might be. Those working at TNA recognise that they do not make some of the connections very explicit. For example, the lettercode in the reference code assigned to records held at TNA can convey connections to those familiar with them, e.g.

> *I'd like you to tell me everything you can about AVIA 3/8*
> AVIA's Ministry of Aviation (K)

As can the hierarchical structure of folders in which something sat, e.g.

> You can go up the hierarchy to see what it is. So you can see that it's something about technical enhancements, authority records, cataloguing, PROCAT changes (E)

And yet, as some individuals pointed out;

I look at the hierarchies for that [...] but it's not terribly intuitive to have to do that, but that's the way we understand how things work round here (A)

I like the Catalogue because I know how to use it. If I didn't know how to use it I'd find it quite annoying because as far as I can see the Catalogue is built with the understanding that you'd know what lettercodes were (E)

Some individuals equate the hierarchy with the term context, e.g. 'The context is the tree in which it is set' (G). Could context then be whatever allows you to contextualise/understand the record, to make a connection to it?

Once such connections are made they seem to be able to help people to find things again, e.g.

I know I sent an email to so and so about such and such roughly six months, nine months or a year ago and I tend to look for things by those associations rather than by a specific name (J)

I have the massive advantage of having been here since the year dot as far as Objective is concerned [...] I can pretty much remember that that bit of testing would have been done by so and so, so I can go and find that (S)

Connections such as the above are 'intellectual' and not necessarily shared by all, but others are 'physical', e.g. the links/aliases made within the Objective system which are like addresses to physical locations. Some individuals spoke of working out these addresses by looking at the parent folders of a file within the hierarchical tree so that they 'can find it again' (P). Such physical links can be broken and this disrupts continuity, as indicated by the extract below which outlines a project recently carried out at TNA with regards to web continuity;

> Hansard had experienced difficulties in that responses to Parliamentary Questions had increasingly taken the form of references to links and therefore when those links broke they lost the record. The Web Continuity project was set up to create some fancy software that automatically redirected those links to pages in the web archive. (L)

Description can make connections explicitly, but this is not always done, e.g.

> Someone mentioned that there was another archive which contained the papers of the man who had collected the collection of interest. There were no hyperlinks or whatever in the catalogue to make the connection – it had come from someone mentioning it (W).

Perhaps another distinction is therefore between links, like hyperlinks, which indicate that there is a connection and the making of connection (mentally) which means that that connection has meaning? Of course a hyperlink may be accompanied by text which explains the connection. On hyperlinks, the following arose in one interview; 'More semantic rather than procedural links such that the hyperlink provides information on the nature of the connection rather than just enabling the connection' (Y, Z and AA).

PICKING OUT THE TRACES – SINGULARITY AND PLURALITY

Obviously a major theme in the above is the idea of connection, but there are also echoes of ideas mentioned earlier such as a distinction between intellectual and physical. There is also a sense in which connection seems to associate with coherence in that coherence can be seen to depend on connection. This theme was explored by the researcher, in memos on subjects such as connection, linking and context. It eventually distilled into another seemingly contradictory idea whereby context could be seen to both connect and distinguish.

For example, it was noted that context tended to be used in the singular and individuals spoke of putting things in context, not in contexts. Also it was noted that individuals spoke of using the context to enable them to work out whether a file was the one they wanted, e.g.

> when doing a search [...] you end up with lots of file titles that are similar and it's only by understanding the context they're in that you kind of know which one you're after (A)

In this sense then context served to distinguish, and yet, it was also used to connect, e.g.

> the context may lead researchers to other areas of the file plan that they are searching for investigating research (G)

Eventually this came to be seen as a tension between singularity and plurality. It could be seen, for example, in the following exchange, reported in the notes of an interview with an archivist working in the digital environment, in which the first half seems to imply plurality, the latter singularity;

> one of the problems with archives [is] that we often fix things in particular ways and say this belongs to this collection, this is legitimate. [...] you have to be open in terms of context. [...] if you find an object and don't know anything about the context, you can imply your own context on it.
> *[Interviewer asks if you can have context without content.]*
> No, because there needs to be something that you are contextualising. But you can have context of an abstract object. You can have context of a time period. (V)

And again, in the following the tension was present in the guise of that between wood (singularity) and trees (plurality), e.g.

> It's just if I'm going to start categorising stuff I want it to be able to do so in a way that [...] helps me chunk my work up so I can see the wood for the trees, it's impossible to see the wood for the trees in Objective (A)

This last also echoed the idea of 'uniformity' mentioned previously, since wood can also be seen as the uniformity against trees singularity.

PICKING THE DATA APART (6)

Returning to the way in which connections can be explicit or not within description, one factor appears to be the prior understanding of the individual reading the description. Thus, TNA staff understand that AVIA connects to the Ministry of Aviation, readers may not. More attention is therefore being paid to making such connections explicit. For example, talking about a catalogue entry for a record about a certain individual, E made the point that if the phrase 'age on entry to the navy' had been used instead of just 'age on entry' the connection to the navy would have been explicit, rather than implicit through the fact that the record had an ADM letter code.

There is the sense then that those creating description should think about their potential audience, e.g.

> Ideally you want something that is sufficiently understandable so that people don't have to enter your mind set to understand what description is given it, so it needs to be something which is an effective means of communication as well (E)

Sometimes individuals spoke of changing description when there was a change of audience, e.g.

I'll call it [a particular file] water cooler in the X drive because no one else except Guy goes in there and he's the one that asked me to create a water cooler, but to put it into Objective, even though it would be in my home folder, if there's a possibility of it ever ending up in the Your Archives folder, I would rename it as something like message board area for Your Archives because I'd be thinking well water cooler that doesn't mean anything they'd be thinking I was getting Facilities to do something (B)

Making such changes can be difficult however if you introduce a time element, because as another staff member put it;

we can pretty much guarantee that how we describe it [a record] now would make no sense to people in 500 years time, a thousand years time, whatever it is (R)

Another connection that arises, therefore, seems to be one with the past. This connection is equated by some with context, for when asked to explain why he had said that the hierarchy in which a catalogue record sat was the context, one individual said that, e.g.

it is because [...] that's all ancient history. You probably couldn't wander into Whitehall and find Ministry of Aviation, there isn't such a thing anymore (S)

## PICKING OUT THE TRACES – TIME AND COMMUNICATION

A number of themes can be seen to emerge here. Firstly, there is the idea of communication, which could be seen as the making of a connection. That connection could be seen as the connection between the person communicating and the person being communicated with (perhaps in the sense that they share

the same mind set), or as the connection being made (or not) by the person with whom communication is being attempted. For example, the fact that not everyone will make the connection between ADM and the navy means that communicating by lettercode is not an effective means of communication, except for those who already know how to read the code. Then again, there is also a sense of the temporal aspect in connection with communication, in that the longer the time span over which communication is being attempted, the harder it becomes.

CONCLUSION - PICKING OVER THE TRACES

Picking over the traces discussed in the above, it is possible to see at least two seemingly contradictory ideas, namely that of change and lack of change inherent in continuity and that of connecting and distinguishing inherent in context. There are also a number of tensions such as that between storing and working, sharing and collaborating, individual and organisation, containers and groups, in process and finished, and boundaries that are hard and those that are soft. Then again, there is a complex circularity in ideas around completeness, closure, coherence and connection, singularity and plurality or perhaps uniformity.

Looking back over these traces (as the reader will be able to do once they have read this thesis through to the end) it is possible to see how they connect to the understanding that was finally reached and which will be outlined later. However, at the time, it would be more accurate to say that the overall impression taken forward from this point by the researcher was one of confusion, of circular argument and irresolvable tension. In order to work with such a nebulous bundle of ideas however, it was necessary to give it some form. The form chosen by the researcher was as shown overleaf.
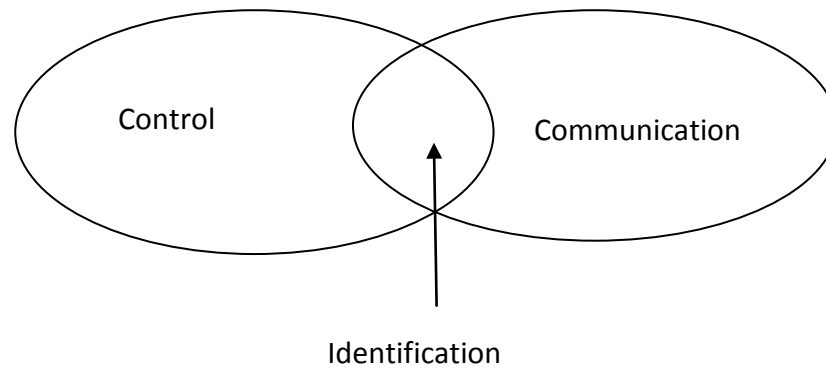
Figure 4.1: Form given to the ideas emerging from open coding

Modelling it in this way, there was a definite sense that it was the overlap, the intersection, which lay at the heart of the matter. As can be seen this was labelled 'identification', whilst either side of the tension was labelled 'control' and 'communication'. The choice of these labels and indeed this form was influenced by the researcher's exposure to existing thinking about the purpose of archival description.

Archival description is often assigned a tripartite purpose. For example, Luciana Duranti writes of three activities in respect of the products of archival description; 'preservation of meaning, exercise of control, and provision of access' (Origin and Development 52). Then again, Anne Gilliland-Swetland has written that the traditional finding aid is firstly; 'a *tool that meets the needs of the archival materials being described* by authenticating and documenting them as archival collections', secondly '*a collections management tool* for use by the archivists' and thirdly 'an *information discovery and retrieval tool* for making the evidence and information contained in archival collections available and comprehensible by archivists and users alike' (original emphasis)(Popularizing the Finding Aid 202).

In this way, the label control in the above model can be seen to relate to Duranti's 'exercise of control' and Gilliland-Swetland's 'collections management tool'; the label communication can be seen to relate to Duranti's 'provision of

access' and Gilliland-Swetland's 'information discovery and retrieval tool'; and the overlap, labeled identification can be seen as relating to Duranti's 'preservation of meaning' and Gilliland-Swetland's 'authenticating and documenting' (Origin and Development 52; Popularizing the Finding Aid 202). Employing these parallels helped to enable the researcher to give the ideas emerging from her data analysis sufficient form such that it was then possible to proceed to the next stage of selective/theoretical coding. This process is covered in the following chapters five to eight

CHAPTER FIVE: REACHING THE CORE: THE CONTROL ROUTE

This and the following chapter will outline the process of selective/theoretical coding through which the form given to the core, or the heart of the matter, moved away from being the intersection of control and communication and towards being what was termed, for a while, the paradox of autonomy. Chapters seven and eight will continue this narrative and cover that part of the process by which the core became resolved through the concept of autopoiesis.

As was explained in chapter three, from this point onwards the data informing the researcher's analysis tended to be more that which she had taken from her reading, rather than that gleaned from the interviews she had undertaken. One result of this continuing analysis was that control and communication came to be seen, not as opposite sides of, but rather as different ways of seeing, the same tension, that so called paradox of autonomy that lay at the core.

Of these two ways, the easiest for the researcher (as an archivist) to follow was that of control, but it was following the harder route of communication that proved the more productive in that it led, not just to the core, but also to a way of making sense of it. Given that it is expected that the majority of readers will be steeped in the same archival traditions which made the control route easier for the researcher, it will be mapped out first. The communication route will be dealt with in chapter six.

FOLLOWING THE CONTROL ROUTE

Looking for discussion or mention of control in archival literature on archival description soon produces a considerable amount of data. As was mentioned in the previous chapter (p.88), control is often associated with the practice of archival description and this connection is enshrined in, for example, David

Gracy's instruction manual for the practice, in which he defines finding aids (one of the products of the practice) as 'any descriptive media, card or document, published or unpublished, that establishes physical, administrative and/or intellectual control over archives and manuscripts' (19). Control is defined separately as 'having at hand, when needed: (1) essential information about records, (2) knowledge of the information in the records, (3) the records themselves' (19). Then again, the article in which Peter Scott introduced the series system to the world is full of control, e.g. 'numerical control', 'controlling agency', 'record control', 'context control', 'controlling series', 'controlled series' and so on (The Record Group Concept 493-504). So much so, that it is perhaps small wonder that the series system has since been characterized as 'A revolution in archival control' (Wagland and Kelly 131-49).

 It could be seen, therefore that in employing the form mapped out at the end of the previous chapter, the researcher was being influenced, not just by the tripartite divisions discussed, but also by another distinction, this time one employed within the UK national standard for archival description, the *Manual of Archival Description*. In that volume, a distinction is drawn, in respect of the data elements normally used in archival description, between those which form the 'archival description sector' and those which form the 'management information sector' (Cook and Procter 57-63). The distinction is made as follows;

> The Archival Description Sector contains information which is primarily for the guidance of users, and data entered into it is in the public domain. […] The Management Information Sector contains information needed for the administrative control of the archival materials and of processes within the repository, and data entered into it is generally not in the public domain. (Cook and Procter 57)

The distinction employed here can be seen as mirrored in the choice of control/communication as either sides of the intersection/tension which seemed to lie at the core. Communication, as will be discussed in the next chapter, was

located in the public domain, but control concerned the private domain of the archivist, the repository, within which archival description was one means by which she exercised control.

Selectively coding for control involved firstly, bringing all the instances of control within the data together, and then attempting to group them within a number of meaningful narratives, which were often prompted by questions which arose in the researcher's mind, such as, for example; how does description control, how is description controlled, is there a difference between the way fonds based and series based descriptive traditions conceptualise control, in what context does control first become an issue discussed in the archival canon and so on. In addition, attempts were also made to read and integrate ideas from other disciplines such as those concerning management control and bibliographic control.

During this process control came to be seen as itself containing the two sides, the irresolvable tension, sensed before, which seemed to lie at the core. The following seeks to introduce that tension in more detail by amalgamating the various narratives outlined in the previous paragraph into one.

THE TWO SIDES OF CONTROL

Early archival interest in control was directed primarily towards solving a problem perceived in terms of bulk. Control was seen as a way of limiting the accumulation of records in order to counter the 'real danger that in the future research work upon Archives may become hopelessly complicated by reason of their mere bulk' (Jenkinson 117, 127-8). Then again, as Schellenberg put it, 'Public records are doubtless produced in too large a quantity by most governments of the world' – particularly that is the 'Records pertaining to routine or repetitive actions', which 'If uncontrolled [...] multiply like cells and

become a cancerous growth on a government body' (Modern Archives 44, 46, 47).

With this emphasis on limiting, the researcher began to see a tension within control. Clearly, this concern to limit bulk, to reduce quantity, made sense in that having less material would make the subsequent use of that material easier. And so Jenkinson did not have a problem with bulk per se, but with the complication it introduced for the work of the researcher of the future. Then again, Schellenberg, albeit less concerned with the future than with the present, was still interested in facilitating the work, in making 'the records serve the purposes for which they were created as cheaply and effectively as possible' (Modern Archives 37).

However, when what was to be limited extended to individuals' actions, it was possible to see that such limits might, rather than facilitating their work, start to impede it. For example, the move to impose new controls to limit the depth of the file plan within The National Archives's Objective system, had caused problems for some - 'it definitely is preventing me from doing filing the way I would like to file' (N). It was intended however, to facilitate the work, at the very least, of the records managers in applying appraisal. Seemingly therefore, limiting the work of some through the imposition of controls, had in this case, facilitated the work of others.

NARRATIVES OF CONFLICTING CONTROL – BUSINESS AND RECORDKEEPING

Once identified it was possible also to see a similar tension underpinning a number of existing narratives of conflicting control, within the archival field. For example, one such narrative was suggested by a records manager at TNA, who spoke as follows;

> he says [...] we're the records specialists, we'll just have to bend over backwards and [...] not clog up the desk [...] with our tools (S)

This comment reflects a long standing perception of a conflict sometimes framed as being between recordkeeping and business activity. Thus, as far as Jenkinson was concerned, the role of the Registry (which may be seen as an agency of recordkeeping) was to 'control, and control absolutely [...] all matters affecting the accumulation of Office papers' (143). And yet Registry could not, 'of course, control the work of the Executive side of the office, which must naturally decide itself whether it wishes to send a letter or address a memorandum to another Department' (144). Such (business) decisions were clearly (eventually) going to affect the accumulation of Office papers, and so the Registry's absolute control would seem to be less than absolute after all.

In this conflict then, Jenkinson seems to see Executive control as taking precedence, and yet he also seems to see the Registry as making its own decisions alongside those of the Executive, e.g.

> the Executive may in some cases wish to preserve in a different order or form to that chosen by Registry, to preserve extra copies, or even to preserve temporarily where Registry would not propose to preserve at all. Individual cases of this kind, where the convenience or particular wishes of perhaps a single member of the Executive had to be met, might well be covered by the making of extra copies and extra files ad hoc; which would in no sense form a part of the documents officially preserved by Registry nor figure in its Registers. (144)

Looking more widely, a similar narrative seemed to appear within the allied field of librarianship. For example, Patrick Wilson, in the 1960s, wrote a book entitled *Two Kinds of Power. An Essay on Bibliographic Control.* In this work, Wilson asked the question 'What might a person be able to do or have done to things [...] that would count as exercises of the power we call "bibliographic control"' and he

answered it by making a distinction between descriptive control and exploitative control (20). He defines them as follows;

> "Exploitative control" is a deliberately somewhat rough or severe term for the ability to make best use of a body of writings, "descriptive control" a not very adequate term for an ability to line up a population of writings in any arbitrary order, to make the population march to one's command. (25)

This distinction has some affinity with Jenkinson's views above, since Wilson's exploitative control appears similar to 'executive control', whereas that of descriptive control can be seen as similar to that type of control exercised by the Registry. For, both executive and exploitative control appear more concerned with facilitating the use of some material, whereas both registry and descriptive control appear more concerned with controlling that material in some way.

A subsidiary question then is the degree to which such narratives of conflicting control can be resolved. As we have seen, Jenkinson proposed a solution whereby the Registry could exercise control alongside that exercised by the Executive side. And, in the years since Jenkinson, further attempts within the archival world to resolve this tension have led to an emphasis on the connection between executive and registry/business and recordkeeping, rather than the separation. For example, more recently, Chris Hurley has characterized and poured scorn on what he calls the 'cabbage patch paradigm', whereby 'Every morning recordkeepers go out into the garden to look for records left for them by business under cabbage leaves from the night before' (Parallel Provenance 22). Furthermore, today's records managers are keen to point out that;

> Effective management of records and other information [...] supports an authority's business and discharge of its functions, promotes business efficiency and underpins service delivery (Great Britain, Ministry of Justice 4-5)

Nevertheless, the separation still remains on some level. It is there, for example in the diagram below, which is extracted from the conceptual model used within *ISO23081-2 Information and documentation — Records management processes — Metadata for records* (International Standards Organisation 7).
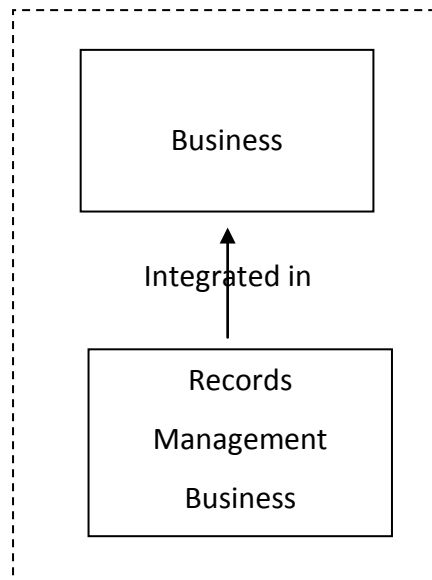
Figure 5.1: Extract from figure 1 — Main entities and their relationships

(International Standards Organisation, ISO23081-2 7)

The dotted line around this figure and the use of the words 'integrated in' would seem to emphasis the connection between business and recordkeeping, but they are also still kept in separate boxes, boxes moreover with harder un-dotted lines.

The tension underpinning this narrative would then seem to be similar to that outlined in the previous section in that there is the idea that recordkeeping controls can both facilitate business (an aspect records managers are particularly keen to stress) and also impede/limit business (as highlighted by the quote at the beginning of this section).

AUTHORITY AND CONTEXT CONTROL

Another, albeit less established, narrative of conflicting control within the archival field is that between authority and context control, which has been set up by the making of a distinction between them by, for example, Jean Dryden (From Authority Control to Context Control 1-13).

Authority control came to the attention of archivists in the 1980s, in particular as part of the movement towards the development of standards for archival description. The concept was borrowed from the library field, in which it had a long tradition. To introduce the concept to the archival field, the Canadian Planning Committee on Descriptive Standards published first Louise Gagnon-Arguin's *An Introduction to Authority Control for Archivists* in 1989, and secondly Elizabeth Black's *Authority Control, A Manual for Archivists* in 1991. The idea of authority control informed the subsequent development of *ISAAR(CPF)*, first published in 1996 (International Committee on Descriptive Standards). Authority control is defined by *A Glossary of Archival and Records Terminology* as;

> The process of establishing the preferred form of a heading, such as proper name or subject, for use in a catalog, and ensuring that all catalog records use such headings ("Authority Control").

Authority control is associated with the creation of controlled vocabularies, lists of terms to be used consistently to ensure that the same term is always used to describe the same thing.

Context control was a term used by Peter Scott in his 1966 article outlining the series system, which made a distinction between context control and, not authority, but record control (The Record Group Concept 493-504). There is less consensus on its meaning, but it has been defined by Dryden (in making a distinction between it and authority control) as;

the process of establishing the preferred form of the name of a records creator, describing the records creator and the functions and activities that produced the records, and showing the relationships among records creators, and between records creators and records, for use in archival descriptions. (From Authority Control to Context Control 4-5)

One of the reasons why authority control and controlled vocabularies were suggested as worthy of adoption by archivists was that they would facilitate their efforts 'to allow the user the cheapest and most efficient path of accessing the data' (Durance 41). Thus, archivists should control or limit the terms they use to describe material, in order to facilitate the search success of those (presumably including themselves) attempting to use that material.

However, looking more closely at how that limiting facilitated, some individuals, such as David Bearman, suggested that;

> Archivists do know, however, from studies of retrieval using controlled vocabulary, that the benefits of control are not derived from the limitation of terms assigned but from the association between terms in thesauri and authored headings which effectively expand the number of routes by which one can get to the terms used in description. (Documenting Documentation 43)

One difference between authority and context control, as defined in the above, would seem then, to be, the differing degrees to which the association of which Bearman speaks is openly acknowledged. The definition for authority control does not speak of showing relationships in the same way as that for context control.

The tension underpinning this narrative of conflicting control is possibly better expressed then, not in terms of limiting and facilitating, but rather in terms of

limiting and connecting. And, as such, it resonates with that between connecting and distinguishing noticed in chapter four with regards to context.

It was noticeable then, that when looking solely at control, which, according to the model formulated at the end of chapter four, was but one side of the tension identified as the core, what was seen was a similar tension. Indeed, in visualizing the relationship between authority control and context control, Jean Dryden employed a form which mirrored that used by the researcher earlier. To be sure the labels assigned to the various parts of this form are different, but Jean Dryden, looking at control, and the researcher, looking at description, seemed to have seen the same thing.
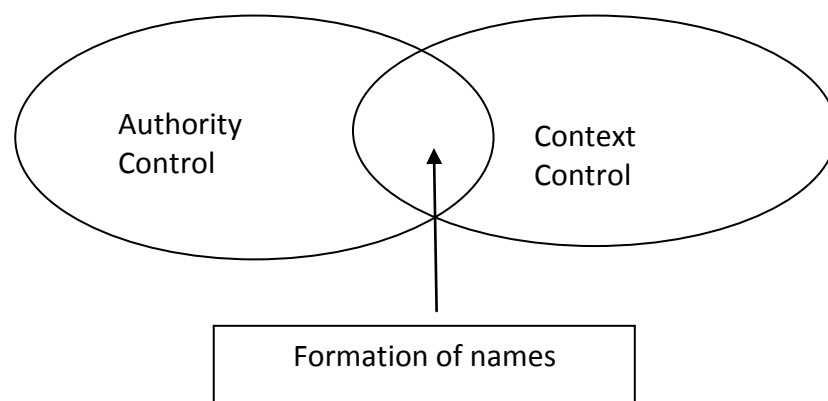
Figure 5.2: Diagram showing the relationship between authority and context control (redrawn from Dryden, From Authority Control to Context Control 5) Permission to reproduce this has been granted by Jean Dryden

And, what they saw, was an intersection, an overlap (or as the researcher chose to term it a tension). The next stage therefore seemed to be to consider the nature of this intersection.

THE INTERSECTION OF IDENTITY

Looking then at this question, the researcher increasingly came to see the intersection, the tension that lay at the heart of the matter in terms of some sense of identity. Her initial attempts at labelling this intersection had resulted in the term 'identification' and had allied it with ideas of 'preservation of meaning' and of meeting '*the needs of the archival materials being described* by authenticating and documenting them as archival collections' (original emphasis)(Duranti, Origin and Development 52; Gilliland-Swetland, Popularizing the Finding Aid 202). Certainly with the latter it seemed possible to conceive of it being a question of providing archival materials with their archival identity.

Then again, Dryden had labelled this intersection 'formation of names' and, in setting up her distinction between authority and context control, she made the point that a 'fundamental issue' was 'how to determine when a new record creator has emerged' (From Authority Control to Context Control 5). This determination was about 'deciding at what point one records-creating entity ends and another begins' (From Authority Control to Context Control 6). Could this too then, not be said to be about identity, the identity of the records creating entity? And was there not a resonance with another view of the tension gained earlier, that between continuity and change, and the idea that organic entities had to change to continue, to retain their identity.

Finally, there also seemed to be evidence for the connection with identity in another narrative of conflicting control, this time one constructed by Chris Hurley, between what he termed terminological and contextual control. This distinction was invoked within an article entitled "Ambient Functions" in which Hurley introduced the idea of ambience as the context of provenance (21-39). The distinction between terminological and contextual control was drawn in multiple ways as summarized in the table taken from the article and reproduced overleaf;

Terminological Control is …	Contextual Control is …
A TRUE HIERARCHY - Yes	A TRUE HIERARCHY - No
MULTI-LEVEL - Yes	MULTI-LEVEL - No
TIMEBOUND - No	TIMEBOUND - Yes
CONTINGENT - No	CONTINGENT - Yes

**Figure 5.3: Table summarizing the differences between terminological
and contextual control (Hurley, Ambient Functions 24)**

Of the above, however, particular emphasis was placed on the last, since Hurley
also wrote that 'Contingency distinguishes terminological from contextual
control--is indeed the point of contextual control' (Hurley, Ambient Functions
24). Hurley then seems to want to make a point of contingency, but he also
seems to want to make a point about identity. For if it is contingency that
distinguishes terminological from contextual control, what unites them, what can
be seen as the source of their intersection, is some sense of identity, e.g.

> Identity can be verified through definition or observation. Definition
> controls the meaning or use of descriptive data (terminological control),
> whereas observation documents identity through relationships
> (contextual control). (Hurley, Ambient Functions 23)

It was not, however, just within the archival science literature that this
association with identity could be sensed, for it also seemed to be an
undercurrent in writings in the field of management control.

According to a recently published introduction to the subject, 'a simple but
widely applied definition' of management control is that it is 'the process of
guiding organizations into viable patterns of activity in a changing environment'
(Berry, Broadbent and Otley 3). The definition may well be simple, but the
subject is not, and some of the complications soon become apparent. For
example, Berry, Broadbent and Otley go on to speak of the need, when

'analyzing a controlled system [...] to define the boundaries of that system' and they set their own as follows;

> In general we shall draw our systems boundary around an organization as a legal entity, but there will be occasions when we shall include within the boundary groups such as customers or creditors, who would usually be considered as external to the organization. (Berry, Broadbent and Otley 4)

The identity with which management control seems to be associated is therefore that of the system they term the organization. Systems thinking would appear to have been influential within the field – Berry, Broadbent and Otley spend some time on its contribution – but it will not be explored in more detail here (Berry, Broadbent and Otley 8-15).

Management control can also be seen as concerned with the achievement of goals. As Berry, Broadbent and Otley assert, 'managers are concerned to influence the behaviour of other organizational participants so that some overall organizational goals can be achieved', but they also raise the question of 'In what sense do organizations have goals, and how can we establish what they are' (4, 5)? They make the point that management control 'includes both regulating the process of formulating purpose and regulating the processes of purpose achievement' (Berry, Broadbent and Otley 5). With regards to formulating purpose, they also write that 'The establishment of purpose refers to the general problem of giving shape and meaning to the patterns of activity and resource allocation within the organization'(Berry, Broadbent and Otley 5). Could not the shape so given be seen as the identity of the organization? Again then, there does seem to be an undercurrent of identity beneath discussions of control.

How then did this undercurrent of identity, which seemed to lie at the heart of several narratives of conflicting control, as well as the intersection between control and communication initially modelled, come to be seen by the researcher in terms of autonomy? To understand this, it is necessary to recount another long standing narrative within the archival field, one which concerns identity in the sense that it is about how to determine the identity of something called the fonds.

Previously, in chapter one, a distinction was drawn between two methods of describing, fonds based and series based. Clearly it is the fonds based method which is more closely associated with the determination of this something called the fonds, this being the top level of the descriptive hierarchy (see figure 1.1). The fonds is commonly characterized as being a 'whole', more specifically;

> The whole of the records, regardless of form or medium, organically created and/or accumulated and used by a particular person, family, or corporate body in the course of that creator's activities and functions. (ICA Committee on Descriptive Standards, *ISAD(G)* 10)

Archivists first became acquainted with the fonds in the nineteenth century and are commonly held to have been formally introduced by a circular issued by Count Duchatel in France in 1841. Almost ever since that first formal introduction however, archivists have struggled with the question of how they are to draw the boundaries around, to determine the identity of, this fonds 'whole'.

For example, Jenkinson, when commenting on the approach to determining the fonds outlined in the earlier Dutch Manual, wrote that;

> The Authors [Muller, Feith and Fruin] tell us that a *fonds* is an organic whole and that any Administration, or one or more of its *fonctionnaires*,

can create a *fonds d'archives* provided that these include *résolutions* or *procès-verbaux*; the inclusion of archives of such a type making it *autonome*. […] For our purposes we may do better perhaps to represent this quality in terms of Administration rather than terms of documents, the forms of which, as we shall see later, are not necessarily constant. *Fonds* we may render, for lack of a better translation, *Archive Group*, and define this as *the Archives resulting from the work of an Administration which was an organic whole, complete in itself, capable of dealing independently, without any added or external authority, with every side of any business which could normally be presented to it.* (84)

Clearly then, both Jenkinson and the authors of the Dutch Manual saw autonomy as a key factor in determining the identity of the fonds. However, whereas Muller, Feith and Fruin's criterion for determining this autonomy relied on the presence of a particular kind of document, Jenkinson's seemed to rely on the independence of the Administration creating the archives which formed the fonds. This criterion, which seemingly also resulted in the Administration being an organic whole, resonates closely with the usual sense of autonomy, as being, as defined by the Oxford English Dictionary, 'The condition of being controlled only by its own laws, and not subject to any higher one' or 'Organic independence' ("Autonomy" def. 2a and 2b).

There is then also a link between autonomy and control. For example, in opposing the respective controls of Executive and Registry, Jenkinson wrote that the registry could not, 'of course, control the work of the Executive side of the office, which must naturally decide itself whether it wishes to send a letter or address a memorandum to another Department' (144). Naturally? Why naturally? Jenkinson does not explain explicitly, but perhaps were the Executive to be subject to the control of the Registry, it would not then be an autonomous Administration and would not presumably be an organic whole.

Jenkinson's criterion for determining autonomy was less concrete than that employed by Muller, Feith and Fruin. Under their directive, either the specified type of document was present, or it was not; Jenkinson's criterion however, allowed more room for variation. Consequently, it was possible to adopt a position on a maximalist-minimalist scale, defined by Duchein, a later critic of Jenkinson's criterion, as follows;

> The former [maximalist] position consists in defining fonds at the highest level [...] The socialist countries of Eastern Europe push to its ultimate consequence this absolutist concept of archives, since they admit that all documents belonging to the state form a single and gigantic fonds of state archives, the basis of all their archival organization. By contrast, the minimalist position consists in reducing the fonds to the level of the smallest possible functional cell, by considering that the true organic "whole" of archives results from the work of this small cell. (69)

Duchein sought to introduce his own criteria for determining (or in his terms 'defining') what he called 'the creating agency of fonds d'archives', as follows. For, such an agency had to have;

- 'its own name and judicial existence proclaimed in a dated act'
- 'precise and stable powers defined by a text having legal or regulatory status'
- an exact definition within 'the act which brought it into being' of 'its position in the line of authority of the administrative hierarchy'
- 'a responsible head, possessing the power of decision to his hierarchal level'
- 'an organizational chart' (70).[1]

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[1] Such criteria are not particularly useful when deciding whether or not an individual or a family (units also seen as records creators) is autonomous. Another avenue worthy of exploration would be to see whether another long standing narrative within the archival field, that about the difficulties of arranging personal or family papers, could be reframed to fit within the narrative about autonomy and identity being constructed here.

As can be seen from the above, the idea of autonomy no longer appears explicitly. Indeed Duchein seems to have found it particularly problematic, at least in terms of how it has been defined by Jenkinson, e.g.

> This formula [of Jenkinson as quoted on p.123] is elegant and seductive but, in fact, doesn't resolve much, for no administration possesses, stricto sensu, an absolute power to regulate its affairs "without the intervention of an outside or higher authority." (69)

In a way then, Duchein seems to be questioning the very possibility of an autonomous administration. And yet, the fourth of the criteria he himself lays down would seem to retain that same idea, since an administration or agency with 'a responsible head, possessing the power of decision to his hierarchical level' would surely also be 'capable of dealing independently, without any added or external authority, with every side of any business which could normally be presented to it' (Duchein 70; Jenkinson 84).

One difference between Jenkinson and Duchein then would seem to be the degree to which they foreground the idea of autonomy (in the sense of independence) as a key factor in determining the identity of the Administration or agency, which identity in turn acts to determine the identity of the fonds. Even when it is placed in the background however, as in the Duchein article, it remains a vital undercurrent in the way the identities in question are being determined.

The debate about how best to determine the identity behind the fonds continues to take place and autonomy continues to be an undercurrent. For example, Terry Eastwood has recently attempted 'to characterize the principled rules that can be used to develop a standard approach to arrangement of archives' (Putting the parts of the whole together 93). And, continuing in the tradition of Duchein, he too tries to downplay autonomy. For example, one of the rules suggested within his article is explicitly framed as a way of avoiding the issue of autonomy. For,

when discussing the precept 'to *ensure that departures from the rules governing the distinction between agencies and offices are made on a consistent basis in institutional policies*', Eastwood writes that 'There is, then, no need to quarrel over the degree of autonomy that makes an entity an agency' (original emphasis)(Putting the Parts of the Whole Together 109).

And yet, as was also the case with Duchein, avoiding the issue cannot make it go away. Thus, when explaining that the way to identify an office is 'that *an office is an entity having its own competence established through the constitutive procedure of the **agency** to which it belongs*', Eastwood adds that 'This rule embodies the essential criteria of autonomy about which Duchein speaks' (original emphasis)(Putting the Parts of the Whole Together 106-107). Then again, autonomy can be clearly seen in the phrase 'its own competence', a phrase which is echoed in another, 'its own mandate', contained within a rule which seeks to define how to identify an agency, e.g. '*an agency is an entity having its own mandate established through the constitutive procedure of **the organization** to which it belongs*' (original emphasis)(Eastwood, Putting the Parts of the Whole Together 105).

Thinking in the above terms, led the researcher to conclude that autonomy was another way of expressing the idea that lay at the heart of the matter. Its connection with identity was clear and it was also clear that it was an issue which had tended to be downplayed, rather than tackled head on. It was important, or, as Eastwood put it, 'essential', but it was also problematic and difficult (Eastwood, Putting the Parts of the Whole Together 107). And it was this difficulty, which led, in part, to the coining of the phrase 'the paradox of autonomy'.

THE PARADOX OF AUTONOMY

Evidence of the difficulty of using autonomy in attempts to determine the identity behind the fonds is not hard to find. For example, as was seen above, when attempting to identify the various identities involved in determining the fonds, Eastwood attempts to downplay their autonomy (contained in phrases such as 'its own competence' and 'its own mandate'), and instead to stress the procedure employed by an external body in creating them e.g. he writes that; 'Determining what constitutes an agency then, depends on identifying the type of procedure **the organization** uses to establish its constituent administrative entities' (Putting the Parts of the Whole Together 105). The organisation however, would seem to have no higher external body to the creating procedure of which it can appeal for its identity. Eastwood provides no principled rule for identifying the organization. Rather we are told that an organization is '*in essence constituted by a hierarchy of fonds'*, which as '*agencies are fonds creating bodies*' would seem to lead to a degree of circularity in the argument (Putting the Parts of the Whole Together 105). For, it would seem to be the case that, the organization (or at least its procedure for constituting administrative entities) determines the agency, which determines the fonds, which in conjunction with other fonds determines the organization.

Eastwood's discussion and attempt to set down principled rules for the arrangement of archives takes place against the background of the difference between fonds based and series based archival description, as outlined in chapter one. Against such a background, it is noticeable that discussions about agency in the context of the series system also tend to end in circular argument. For example, Chris Hurley has pointed out that there is a circular argument underpinning Peter Scott's original definition of agency (Parallel Provenance 31). Both fonds based and series based archival description seem then to rely on circular arguments in respect of identifying the creating agency behind the identities they choose respectively to call the fonds/recordkeeping system. It is not this however, which Eastwood stresses when expressing his conclusion that

there is 'surprising little disagreement over what has to be identified in the process of arrangement' (Putting the Parts of the Whole Together 115). Rather he writes that;

> The principle [sic] difference between the fonds-based concept and the Australian series system lies in the approach the two take to the definition of agencies. The former holds fast to the notion that an agency is the highest level entity in an organization expressing functional sovereignty in the creation of archives as a whole, and therefore circumscribes the most important archival relationships. The Australians prefer a more elastic concept of agency based on pragmatic assessment of this same principle. (Putting the Parts of the Whole Together 115).

For him then, what unites the fonds and series based systems lies with the notion of agency expressing functional sovereignty. Could this not be just another way of describing autonomy? And, if so, what was the connection between this notion and the sense of going around in circles that led the researcher to the phrase the paradox of autonomy?

THE END OF THE CONTROL ROUTE

In this chapter, the control route was followed until it led ultimately to a sense of circularity which seemed to associate with some notion of autonomy and some of identity. Identity was seen as a vital undercurrent in a number of narratives of conflicting control, e.g. those between authority and context control, and between terminological and contextual control; and autonomy appeared to underpin a long standing debate within the archival field, with regards to how to identify the creating agency behind identities known as the fonds and the recordkeeping system.

Of this circularity, Chris Hurley writes that changing from it is 'undesirable until a more sophisticated archival concept of *creation* is uncovered' (Parallel Provenance 29). He wishes the debate to move away from 'How is a records creator to be identified?' to 'What does records creation mean?' (Parallel Provenance 28, 31) Similarly, reaching the end of the control route, the researcher felt strongly that the debate needed to move away from how is autonomy to be identified, to that of, what does autonomy mean? How does it relate to being an organic whole, being independent, having functional sovereignty?

These questions will not be addressed until chapters seven and eight. First it is necessary to complete the outline of the process through which the form given to the core moved away from being the intersection of control and communication and towards being what was termed the paradox of autonomy. And so, chapter six outlines another route taken in parallel with the one outlined above. This route takes as its starting point the notion, not of control, but of communication and following it will continue to flesh out the form under discussion.

CHAPTER SIX: REACHING THE CORE: THE COMMUNICATION ROUTE

This chapter will continue the account, started in the previous chapter, of the process through which the form given to the core moved away from being modelled as the intersection of control and communication (see chapter four) and towards being something termed the paradox of autonomy. The reasons for the choice of this term have been outlined in the previous chapter, where the term was described as referring to a sense of circularity associated with notions of identity and autonomy, which could be seen in a long standing debate within the archival field about how to identify the creating agency.

Following the control route it was the ideas of identity and autonomy that came through most strongly. The communication route, followed in parallel, gave greater shape and definition to the vague sense of circularity which was associated with them. This shape crystallized around the opposites closed and open and, combining the results of both routes, led to a new tripartite form, not the intersection of control and communication, but rather the combination of the ideas of 'open', 'closed' and 'autonomous'.

The communication route was not as well trodden a path within the archival field as that of control. Consequently following it was harder and involved false starts, dead ends, and frequent leaps across into other literatures and fields. The linearity of the following account is then, more of a fiction than that of the one offered in the previous chapter. For, whereas the control route was more sorted in the mind of the researcher before the account in chapter five was constructed, the communication route was much less so and has therefore, in greater part, been constructed with the writing of this narrative.

At the end of chapter four, the label communication was associated with the following purposes of archival description, as proposed by Luciana Duranti and Anne Gilliland-Swetland respectively - 'provision of access' and 'an *information discovery and retrieval tool* for making the evidence and information contained in archival collections available and comprehensible by archivists and users alike' (original emphasis)(Origin and Development 52; Popularizing the Finding Aid 202). At the beginning of chapter five, the control/communication distinction was aligned with that between the 'archival description sector' (communication) and the 'management information sector' (control) employed in the *Manual of Archival Description* (Cook and Procter 57-63). It was noted there that one point of difference in the latter distinction appeared to be between in the public domain and not in the public domain. Here it is highlighted that the idea of in the public domain also resonates with the ideas of users and access contained within the purposes of archival description detailed above.

Communication then, seemed to involve the idea of others (frequently termed users) with whom it was necessary for the archivist to communicate. Thus, as was seen in chapter four, those creating archival description were concerned, for example, that;

> Ideally you want something that is sufficiently understandable so that people don't have to enter your mind set to understand what description is given it, so it needs to be something which is an effective means of communication as well (E)

And, similarly, another member of staff at The National Archives whose role involved creating descriptions, stated, when asked about the purpose of archival description, that it was;

> To give, like I said before, to give as clear as possible to the reader, as full and as clear, but as concise as possible a description of what on earth is contained (O)

This idea was reflected in the wider archival literature. For example, in the work of Hugh Taylor, who wrote that 'The archivist is primarily concerned with the communication of the record to the user through preservation and all the subsequent processes with which users have become familiar' (Information Ecology 35).[1]
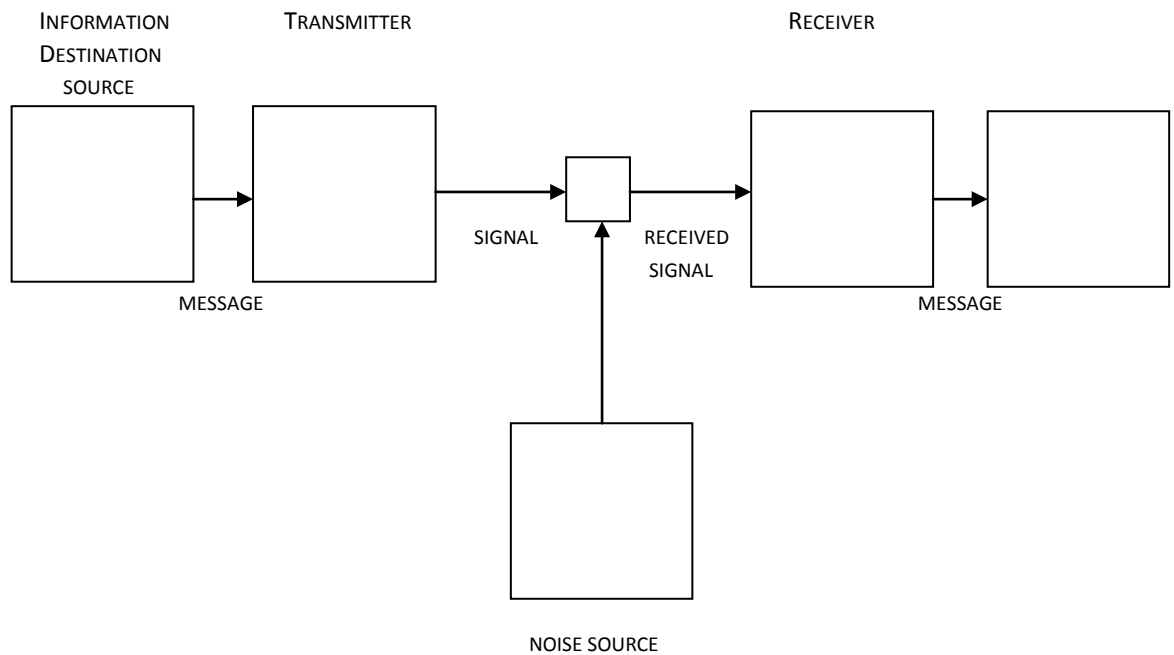
It was the emphasis on this interaction with others, on operating within the public domain, that seemed to distinguish the communication route from that of control, where, as was shown in the previous chapter, the archivist was seen as operating within their own private domain, the archival institution. And so, it was this aspect that was concentrated on initially, as the researcher considered a number of models for communication.

TRANSMISSION

The first model the researcher considered was that which has become known as the Shannon-Weaver model (see figure overleaf). This model was introduced to the world in a paper entitled "A Mathematical Theory of Communication" by Claude Shannon, a researcher in the field of telephone technology, published, in two parts, in the Bell System Technical Journal, in 1948. It was later republished in a book co-authored by Shannon and Warren Weaver, entitled *The Mathematical Theory of Communication*.

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[1] Taylor has come to be regarded as a major influence on Canadian archival studies and the development of archival theory more generally (T Cook, What is past is prologue 34). He also advised that; 'We [archivists] should then, by the nature of our training, be thoroughly equipped not so much with a knowledge of academic history as with a knowledge of [...] communication theory [...]' (Information Ecology 31).

INFORMATION
SOURCE

DESTINATION

TRANSMITTER

RECEIVER

MESSAGE

SIGNAL

RECEIVED
SIGNAL

MESSAGE

NOISE SOURCE

Figure 6.1: Schematic diagram of a general communication system (redrawn from Shannon, A Mathematical Theory of Communication 381)

The model outlines a communication system consisting of; an information source 'which produces a message or sequence of messages to be communicated', a transmitter 'which operates on the message in some way to produce a signal suitable for transmission over the channel', a channel which 'is merely the medium used to transmit the signal from transmitter to receiver', a receiver which 'performs the inverse operation of that done by the transmitter, reconstructing the message from the signal', and a destination which 'is the person (or thing) for whom the message is intended' (A Mathematical Theory of Communication 380-381).

It is now recognized however (and was at the time), that the model does not transfer very well to human communication, since it treats communication as purely an 'engineering problem', e.g.

The fundamental problem of communication is that of reproducing at one point either exactly or approximately a message selected at another point. Frequently the messages have *meaning*; that is they refer to or are

correlated according to some system with certain physical or conceptual entities. These semantic aspects of communication are irrelevant to the engineering problem. (A Mathematical Theory of Communication 379)

Reading the above, prompted the researcher to ask whether or not archivists were also prone to reducing their task to the 'engineering problem' of 'reproducing at one point either exactly or approximately a message selected at another' (A Mathematical Theory of Communication 379).

In attempting to answer that question, the researcher entered a cul-de-sac as she strayed into the area of authenticity. Authenticity has long been of concern to archivists, but this concern seems to have become more pressing with the advent of electronic records. For example, in the early 1990s, two separate research projects, one based at the University of Pittsburgh, one at the University of British Columbia, began to look at the issue of electronic records in respect of their reliability and integrity.

These projects came to the attention of the researcher at this time because of the traces of the idea of communication and transmission to be found within their outputs. These traces were most clearly visible in the case of the outputs of the University of Pittsburgh's project, one of which was a 'Reference Model for Business Acceptable Communications'. Of this model it was later written that;

> The Business Acceptable Communications model is a communications model, premised around the transmission process and how that transactionality fundamentally defines a record. (Reed, Metadata)

Then again, one of the outputs of the University of British Columbia's project was a series of templates, which summarized 'a number of hypotheses expressing the necessary and sufficient components of a complete, reliable, and authentic electronic record' (Duranti and MacNeil 47). Transmission is frequently mentioned within these templates, within which it is asserted that, for example

'Reliability of a record is not affected by its **mode, form**, or **state of transmission**', and 'Authenticity is conferred to a record by its **mode, form**, and/or **state of transmission**, and/or **manner of preservation** and **custody**' (original emphasis) (Duranti, Eastwood and MacNeil 74; 77).

Once noticed, it was possible also to find similar traces by looking both backwards and forwards in time from the 1990s. For example, in Jenkinson's *Manual of Archive Administration*, there is an entire section entitled 'Transmission of Archives: the Question of Custody' (33-39). As Jeannette Bastian points out 'To Jenkinson […] custody was the "*sine qua non*" for determining whether a document was archival'; authenticity being one aspect of this archival quality (Taking Custody, Giving Access 85). Then again, looking forwards to more recent thinking, an attempt to define the characteristics for authentic records, published by The National Archives states that;

> A record can be considered to be essentially complete and uncorrupted [authentic] if the message that it is meant to communicate in order to achieve its purpose is unaltered. (The National Archives, Generic requirements 8)

Traces of communication and transmission could then, be found all over debates about authenticity, but the question as to whether archivists were prone to reduce their task to an engineering problem remained unanswered.

The researcher's instinct was that the answer to the question was probably 'yes'; replace the word 'message' with 'record' in the phrase 'reproducing at one point either exactly or approximately a message selected at another' and you were summing up pretty accurately the archival endeavour (A Mathematical Theory of Communication 379). Then again, this instinct seemed to be supported, when the researcher turned to consider a fairly recent (2002) model devised by the National Archives of Australia in their development of 'An Approach to the

Preservation of Digital Records'. This model, the so-called 'Performance Model' is reproduced below.

| Source | → | Process | → | Performance | ← | Researcher |
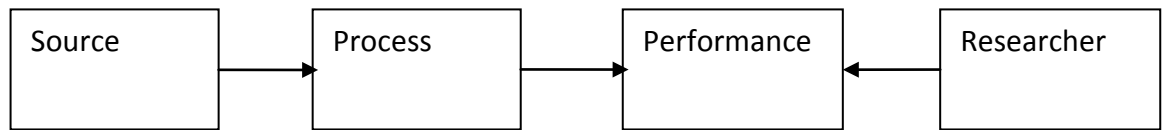
Figure 6.2: Performance model – source and process components

(redrawn from Heslop, Davis and Wilson 9)

In this model the arrows do not all point one way, such that the direction of travel is not all one way to the researcher, rather there is also travel from the researcher. The model then, would seem to suggest that the researcher is bringing something to the performance. And yet, in the textual explanation of the model, it is written;

> When a source is combined with a process, a *performance* is created and it is this performance that provides meaning to a researcher. When the combination of source and process ends, so does its performance, only to be created anew the next time the source and process are combined. (original emphasis)(Heslop, Davis and Wilson 9)

In the text then the direction of travel is all one way to the researcher – the performance 'provides meaning *to*'. Surely, though, the diagram would suggest that the performance is a combination of source, process and researcher, not just 'the combination of source and process' (Heslop, Davis and Wilson 10). Just as the semantics are bracketed out of the Shannon-Weaver model, the meaning is bracketed out of the performance model. The difference is that, at least, the Shannon-Weaver model makes that explicit.

As the subject of the research was not authenticity, the researcher did not spend time in trying to work out the implications of this thinking for authenticity,

although that might prove fruitful for those who are so inclined. Rather what she took away from the exercise was the need to distinguish communication in its sense of transmission from communication in its senses of affinity, association and access, by which it could be said to mean, for example 'the action of sharing in something' ("Communication" def 3b). This sense of sharing was felt to be absent in some transmission models of communication and also, despite appearances, in some models developed in the archival field with regards to electronic records and digital preservation. Feeling that to ignore this sense of sharing did tend to reduce communication to, as Shannon put it, an 'engineering problem' - that is to a problem seen solely from the perspective of the engineer (or archivist) seeking to transmit a message, rather than also from that with whom he sought to communicate - the researcher decided to consider other (less one way) models for communication.

EXCHANGE

Such a set of models could be found in those developed by Wilbur Schramm (1907-1987), which sought to build on the Shannon-Weaver model, but not to bracket out the meaning. Schramm has been seen as one of the founding fathers of communication research (Singhal 18). His models were developed not in the context of telephone technology, but rather more in that of establishing communication as a subject of research in its own right, one which took into account the human element. His models employed a number of ideas absent from that of the Shannon-Weaver model, including feedback and fields of experience.

For example, Schramm speaks of how, in the case of conversation; 'One is constantly communicating back to the other', and further, of how, 'The return process is called feedback' (How Communication Works 8-9). Then again he writes of how 'receiver and sender must be in tune', adding that 'This is clear enough in the case of a radio transmitter and receiver, but somewhat more

complicated when it means that a human receiver must be able to understand a human sender' (How Communication Works 5-6). It is with these latter remarks that he introduces the diagram reproduced below.
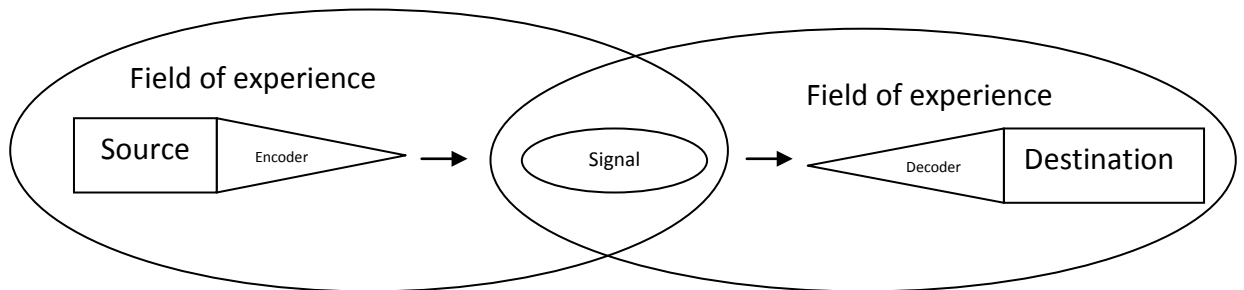
Diagram 6.3: One of Schramm's models of communication

(redrawn from How Communication Works 6)[2]

Comparing this diagram with that of Shannon above, it is possible to see more clearly the gaps which Schramm has filled, e.g. in terms of not bracketing out meaning and also of communication as a mutual act, an act of sharing. The overlapping fields of experience and the idea of feedback again resonate with the sense of intersection and circularity which has been encountered frequently in this work. In this context however, the intersection and circularity seemed to associate with different ideas, not those of autonomy and identity encountered by following the control route, but rather ideas of exchange and sharing, a two sided transaction rather than a one sided transmission.

The idea that there is a difference between communication as exchange, rather than as transmission, has been highlighted of late with the advent of the so called Web 2.0 technologies, which allow online conversations prompted by

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[2] The form of overlapping ovals has previously been encountered in both the previous chapters, once as used by the researcher to give shape to the ideas emerging from the process of open coding and once as used by Jean Dryden in giving shape to the relationship between context and authority control.

what has been transmitted. An individual need no longer be content to receive, now they can also comment. And yet, the sense of exchange and sharing within communication can be seen to go even deeper than such conversations, which could equally well be termed two way transmission. To illustrate this point, another model of communication, that offered by the German sociologist Niklas Luhmann (1927-1998), will be discussed below.

Luhmann's work is extensive and does not deal solely with communication. That said however, he has discussed communication at some length and sought 'to criticize the current understanding of communication and to place a qualitatively different variant alongside it' (What is Communication? 155) This variant is shown, by David Seidl and Kai Helge Becker, in an article entitled "Organisations as Distinction Generating and Processing Systems", as follows;
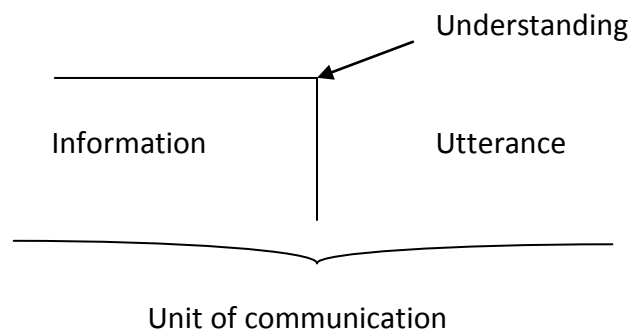
Figure 6.4: A unit of communication (redrawn from Seidl and Becker 19)

Luhmann himself though, has explained it as follows;

> It [communication] comes about through a synthesis of three different selections, namely the selection of information, the selection of the utterance [...] of this information, and the selective understanding or misunderstanding of this utterance and its information. (What is Communication 157?)

In this model, then, there are no senders and no receivers; the emphasis is not on communication across a divide, but on communication 'as a three-part unity' (Luhmann, Social Systems 141).

Clearly, the above is but a brief introduction to the model, but, even so it is possible to see how it is 'qualitatively different' (Luhmann, What is Communication? 155). The models of Schramm, like those of Shannon and Weaver, portray two separate individuals existing in otherwise empty space through which messages travel. In that of Luhmann however, there are no individuals, only a synthesis of selection. The emphasis is then on communication as a unity rather than as a means to bridge a divide. The researcher became aware that in talking of tension, and of positing control and communication as separate, she was setting up an opposition, emphasising the divide rather than looking at the unity. This awareness, however, was not immediately acted upon, or even consciously recognized, rather another idea attracted the researcher's attention, that of selection.

SELECTION

Selection came to grab the researcher's attention, because it was (or at least she thought it was) a familiar concept, since selection is also part of archival practice, although in this instance what is being selected is records rather than information, utterance or understanding. Within the archival field, selection also carried with it a common narrative, outlined, for example, by Terry Cook in the article "What is Past is Prologue?" (17-63). The narrative can be summarized as follows.

Sir Hilary Jenkinson sought to deny the archivist any role in selection and wanted to make 'the Administrator the sole agent for the selection and destruction of his own documents' (130). This position became untenable when dealing with constantly accumulating modern (rather than static caches of medieval) records

and archivists did have to start selecting what should be kept. This led to a debate about how such selections should be made, on what grounds. This debate has continued ever since and shows no signs of being resolved any time soon.

Resisting the temptation to get involved in this debate, the researcher instead forced her attention back to archival description and started to look for selection there. As Jennifer Meehan notes in her article "Making the Leap from Parts to Whole: Evidence and Inference in Archival Arrangement and Description", 'Recent discussions of arrangement and description have, directly or indirectly, focused increasingly on the process of the archivist' (72). This process, however, has not tended to be expressed primarily in terms of selection.

For example, Elizabeth Yakel sees it more as a process of representation, e.g.

> Throughout this paper the term archival representation will be used for the archival function commonly and variously identified as arrangement and description, processing, and occasionally archival cataloging. The term 'archival representation' more precisely captures the actual work of the archivist in (re)ordering, interpreting, creating surrogates, and designing architectures for representational systems that contain those surrogates to stand in for or represent actual archival materials. (Archival Representation 2)

Then again, Heather MacNeil, has recently sought to explore the parallels between the process of archival description and that of textual criticism (Picking Our Text 264-278). Finally, Meehan's own focus is on 'The analytical process in arrangement and description' and she speaks of 'foregrounding the analysis and decision-making involved in the process' (Making the Leap 89; 75).

In all these characterisations however, a sense of selection is more or less explicit. For example, Yakel speaks of; 'the underlying systems of privileging,

classifying, and selecting that comprise both arrangement and description'
(Archival Representation 2). Then again, MacNeil highlights selection in her
choice of title "Picking Our Text" and states, in her conclusion, that one of the
themes she has sought to examine is 'the selectivity of archival representation'
(Picking Our Text 278). In both of these cases, the selection seems to be within
the archival description, but Meehan however, seems to draw a parallel between
the practice of archival description and that of selection (of records for
retention) outlined at the beginning of this section, e.g.

> At the level of analysis where archivists must rely on existing sources in
> order to draw conclusions about certain facts of which we have no
> firsthand knowledge, the process is remarkably similar for both
> organizational records and personal papers, whether in the course of
> selecting material for retention or devising an arrangement scheme, and
> whether carried out in an institutional archives or a collecting repository.
> (Making the Leap 88)

In this passage then, the unifying factor (which unites, amongst other things,
'selecting material for retention' and 'devising an arrangement scheme') would
seem to be the process of drawing conclusions (Making the Leap 88). Meehan's
article also discusses ideas of evidence and inference (Making the Leap 86-89).
And, as well as characterizing the process of archival description (or as she terms
it archival arrangement and description) as one of analysis and decision making,
Meehan also speaks of 'the archivist's process of reasoning' which;

> invariably includes, to one extent or another, gathering contextual
> information from existing sources, making inferences from that
> information, and drawing conclusions about context(s) on the basis of
> those inferences. (Making the Leap 85)

On one level asserting that this process of analysis is one of the 'commonalities
across archival functions' would seem to be fairly banal – it seems obvious that

archivists have to reason and draw conclusions in order to perform archival functions (Making the Leap 88). On another though, it is extremely profound, since it does place the emphasis on what the archivist is actively doing when they attempt to communicate, or select, or represent, or describe records. Of this process, Meehan also writes that;

> This configuration, though rather broad, renders a more accurate account of the archivist's process of *making sense* of the records en route to contextualizing them, preserving their integrity, and ultimately rendering them intelligible to users. (Making the Leap 85)

In chapter one it was stated that this thesis sought to place the emphasis less on what it is archivists are trying to do when they undertake archival description - that is on archival description as a means to an end - and more on archival description as the end in itself. Expressing the same sentiment in different terms, could it not be that too much attention has been paid to archival description as a means to the ends of contextualizing, preserving and rendering intelligible, rather than as the end of making sense?

SENSE MAKING

From reading about research methods and grounded theory in particular, the researcher was already aware of an approach, known as sense making, which was frequently associated with Dr Brenda Dervin, a Professor in the School of Communications at Ohio State University.[3] Given that the researcher was following a communication route and given that it had already led to sense

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[3] For example, in their article on 'Building an infrastructure for archival research', Gilliland and McKemmish footnote 'Dervin who theorized about "sense-making"' (167).

making, it seemed appropriate to consider Dervin's work, and her 'Sense-Making Methodology' in more detail.[4]

One article, which contained ideas which seemed to resonate with the direction of this research, was that which reported on a project undertaken (in a sense making mindset) to focus 'on the problems of communicating between researchers and practitioners in three fields: library and information science, human computer interaction, and communication and media studies' (Dervin, Reinhard and Shen).

Within this paper, it states that 'What is being proposed is a qualitatively different kind of communicating than we do now' (Dervin, Reinhard and Shen). These words echo those of Luhmann above, and, as with Luhmann's model, there is a sense that the qualitative difference in part involves doing away with the idea of bridging a divide. Certainly, both, Luhmann, and Dervin, Reinhard and Shen, seek to distance themselves from the idea of transmission. For example, writing in *Social Systems*, Luhmann states that 'the metaphor of transmission is unusable' (139). And, in their article, Dervin, Reinhard and Shen speak of how communication 'proceeds as if it is a rather straightforward transmission project', whereas it would seem that they would prefer it to be practiced, 'as more than transmission' (Beyond Communication).

One of the problems with the idea of bridging a divide would seem to be that it tends also to carry the implication of crossing from one side to another side. For example, Dervin, Reinhard and Shen speak of 'a fundamental communication paradox', whereby;

> On the one hand, most people do genuinely want to build bridges across
> diversity. But on the other, there exists still the too-often unstated belief

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[4] There is a website dedicated to Sense-Making Methodology at http://communication.sbs.ohio-state.edu/sense-making/ (last accessed 10 September 2010). From the home page of this site there is a link to a list of Dervin's many published works.

that the purpose of crossing the bridge, i.e., the goal of communication, is to find right answers or convince others of the rightness of our views. In essence, an orientation toward the interpretive collides with an orientation toward the absolute; and the activities of communicating are unwittingly collapsed into outcomes. (Beyond Communication)

Thus, the 'qualitatively different kind of communicating' proposed does not seek 'to create consensus'. Rather there is an emphasis on 'asking questions that facilitate internal sense-making and not demanding that the other defend themselves in worlds of our own constructions [sic]' (Dervin, Reinhard and Shen).

The name Dervin, Reinhard and Shen seem to want to give to this form of communicating is 'dialogic communicating', but the researcher personally found that phrase difficult since it conjured up again the sense of transmission back and forth across a divide. As was stated above, the transmission model with its sense of two separate individuals divided by otherwise empty space through which messages travel back and forth seemed to be opposed in some way to that of communication as a unity, a synthesis of selection, offered by Luhmann, and to that of communication as sharing in something. And yet, sense making seemed to once again emphasis that separation, even almost to defend it as unassailable, since the aim was not to demand that the other crosses over into our world, but rather to encourage their own internal questioning in the hope (and not the certainty) that this questioning will lead to the divide narrowing, to their world and our world coming closer together.

At this point then, the control and communication routes started to intertwine. For, whereas the control route ended with questions around autonomy and how it related to being an organic whole, being independent and having functional sovereignty; the communication route seemed to be leading to questions around being separate and allowing others autonomy with regards to their own internal sense making, and yet still somehow communicating, sharing in something. This connection was made more apparent to the researcher through the assertion,

within Dervin, Reinhard and Shen's article, that the form of communicating they were advocating led 'closed-minds [to] open up to other options' (Beyond Communication). As will be explained further below, the use of closed and open resonated strongly with one aspect of the debate about the identity of the creating agency introduced in the previous chapter in association with the idea of autonomy.

CLOSED AND OPEN

In the previous chapter, the concept of the fonds was introduced and it was shown that autonomy was seen as a key factor in determining the identities behind it, such that many attempts had been made to draw up criteria by which autonomy could be identified in respect of records creators (primarily organisations). As part of that discussion, the work of Duchein in drawing up such criteria was mentioned. What was not mentioned at the time, but which comes to the fore at this point, is that, in so doing, Duchein chose to employ a distinction between closed and open and posited both closed and open fonds.

Duchein structures his article around five points. The first of these 'the definition of fonds according to the hierarchy of creating agencies' leads to the criteria discussed earlier (68). The other four are as follows;

> the repercussions of administrative change on the composition of fonds; the definition of the notion of "provenance" of fonds; the definition of the idea of "closed fonds" and "open fonds," with, as corollary, the problems posed by the arrangement of "open" fonds; and, finally, the extension of "external" respect des fonds (respect for the integrity of fonds) to respect for "internal" integrity (respect for the arrangement given by the creating agency and respect for the internal divisions of fonds). (68)

A whole section is then dedicated to the idea of closed and open fonds, but in this section he also refers back to his discussion under the previous point about the definition of the notion of provenance.

What then is the difference between closed and open fonds? Duchein's answer is that a fonds automatically becomes closed when the agency that created it is 'abolished'. When closed in this way a fonds can be seen to be complete (74). On the other hand, however;

> a fonds remains open as long as the agency which creates it remains active, and that may last several centuries [...] It is evident that archivists cannot wait to deal with these fonds until they are closed. (75).

Practically speaking then, archivists must, in Duchein's view, deal with both closed and open fonds, since refusal to deal with open fonds would result in a situation, highlighted by Peter Scott, whereby 'final processing and numbering may be postponed indefinitely to await the likelihood of an additional series being discovered' (The Record Group Concept 496).

Wherein then lies the problem with dealing with both open and closed fonds? The definition would seem to be clear cut. If the creating agency still exists the fonds is open, if it is not the fonds is closed. However, one problem is that, as recognized by Duchein and highlighted in the earlier discussion of authority/context control, 'it is often difficult to say exactly when an agency stops existing' (74). And so, for example, in some cases it may be necessary to decide 'whether an agency has ceased existing or if it is perpetuated under another name' (75). And, in this regard, Duchien expresses the view, that it is only when 'there is no doubt or uncertainty about the continuity of the two agencies' that the fonds can be regarded as continuing to be open (75). On one level then, there are correlations underpinning the idea of closed and open fonds between closed and complete and between open and continuing. This resonates

with ideas of closed, complete, continuity and change, which emerged during the process of open coding discussed in chapter four.

As was stated earlier, the fonds is commonly defined as;

> The whole of the records, regardless of form or medium, organically created and/or accumulated and used by a particular person, family, or corporate body in the course of that creator's activities and functions. (ICA Committee on Descriptive Standards, *ISAD(G)* 10)

And so, Duchein in seeking to provide 'solutions for actual cases without being distracted by considerations which are too theoretical' needed also to deal with 'the case of fonds of abolished agencies which have been integrated and mixed with the fonds of agencies which have succeeded them' (64; 75). This case was problematic because;

> They are clearly closed fonds but, to the degree to which they have lost their individuality by reason of their integration into open fonds, they may no longer be treated, from the archival point of view, as autonomous fonds. (75).

It is at this point then that he refers back to his earlier discussion of the notion of provenance and admits that 'For them [the closed fonds mentioned in the above quote] the problem is more theoretical than practical' (75).

And so, what is this theoretical problem? Duchein links it to ideas of provenance and (as seen above) the autonomous fonds. He also links it with questions of identity and individuality. For example part of the discussion (on the notion of provenance) to which he refers back is reproduced below;

> When a fonds has kept its identity and individuality, it must be considered as provenant from the agency that created it. [...] On the

contrary, when a fonds has been, in the course of its history, dismembered and/or integrated into the fonds of an agency other than the one which created it, to the extent of having lost its identity and individuality, it must be considered as provenant from the agency which received it and integrated it into its own fonds. (74)

Increasingly then, the researcher came to see the core as revolving around the idea of identity and individuality, of reconciling autonomy in the sense of organic independence, with openness, in the sense of communicating with others and of continuing to have a connection with some creating agency. Attention therefore came to be focused on a new tripartite form, no longer the intersection of control and communication, but rather the combination of the ideas of 'open', 'closed' and 'autonomous'.

OPEN, CLOSED AND AUTONOMOUS

As a result of following the control and communication routes, a new form of the core was therefore starting to emerge, but what brought it into the sharpest focus was the work of Angelika Menne-Haritz in respect of *Business Processes An Archival Science Approach to Collaborative Decision Making, Records and Knowledge Management*. This work was initially explored as part of the researcher's consideration of selection and of the process of archival description.

It attracted attention at that point since it employed a distinction which resonated with the one being drawn between archival description, as a means to an end (the means of 'contextualizing them [records], preserving their integrity, and ultimately rendering them intelligible to users'), and archival description as an end in itself (the end of making sense or reasoning) (Meehan, Making the Leap 85). For, in her work, Menne-Haritz made a distinction between production processes and decision making processes. And so, seeing archival description as a production process was to see it as a means to an end, the process that led to

the production of so called finding aids or catalogues; whereas, seeing it as a decision making process was to see it as an end, as a process of reasoning or making sense.

As was demonstrated above, it was eventually decided that the point about archival description as means or ends could be made without appeal to Menne-Haritz's distinction between production and decision making processes, but nevertheless it attracted attention again as the core started to crystallise around the ideas of 'open', 'closed' and 'autonomous' for the following reasons.

In making her distinction, Menne-Haritz does make the point that 'neither decision making processes nor production processes occur as a pure form in the real world' (Business Processes 13). She also speaks of how the two types of process are similar, in that they are both business processes, that is; 'sequences composed of interlinked events' and 'forms of collaborative work involving the integration of various efforts through a series of steps to attain common goals' (Business Processes 12; 13). Ultimately however the difference between them (or rather the distinction Menne-Haritz seems to want to make) is that between 'open, yet operationally closed' (decision making processes) and 'operationally open, yet with a closed end' (production processes) (Business Processes 12).

Here then, is the link to the idea of open and closed, since both processes, in different ways, are both closed and open. The link to autonomy comes later in the work, when Menne-Haritz seeks to outline the 'needs of autonomous open ended processes' (Business Processes 148-149). By implication then, it would seem that Menne-Haritz sees decision making, or open, yet operationally closed processes, as in some way autonomous.[5] A conclusion which seems to be supported by the way in which she compiles the following table (within an article

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[5] There is also a link with communication. She writes, for example, that decision making processes 'are based on communication and therefore need communication techniques in order to happen' (Business Processes 14).

entitled "Access – the reformulation of an archival paradigm") to outline, once again, the decision making/production process distinction, e.g.

Processes	Production process	Decision making process
Results	Predefined closed results	Open end
Control	Controlled by external influences	Operationally closed with internal control
Construction	External model	Internal self constructed history
Form	Modelled on the wanted results	According to the open problem
Economic effects	Multi repetition/efficiency	Well planned/effectiveness

Figure 6.5: A table comparing production and decision making processes (redrawn from Menne-Haritz, Access 75)

Decision making processes then, which are controlled, not from the outside, but from the inside, would seem to be the ones which are autonomous.

Looking at the combination of the ideas of 'closed', 'open' and 'autonomous' then, Menne-Haritz would seem to make a distinction between open, yet operationally closed processes and operationally open, yet closed processes, with the former being autonomous, the latter presumably not. However, in making this distinction, it would seem that Menne-Haritz also has someone else's distinction in mind. For, she writes of how 'The American philosopher Heinz von Foerster developed the model of trivial and non-trivial machines as an explanation of the difference between operationally open and operationally closed processes' (Business Processes 13).

Discussion of this model will be postponed until the next chapter, because what grabbed the attention of the researcher at this point was that Heinz von Foerster

is also seen as one of the architects of a discipline known as cybernetics, defined by the Oxford English Dictionary as 'The field of study concerned with communication and control systems in living organisms and machines' ("Cybernetics" def. 1). Here then was a discipline that seemed, both to engage with the very intersection that was of initial interest to the researcher, and to engage with at least some of the concepts that were beginning to emerge as a result of selective coding for both control and communication. In this way then the communication route can be seen as leading, not just to a better understanding of the core, but also to a possible way of exploring that core, through the discipline of cybernetics. That exploration forms the subject of the next two chapters.

THE END OF THE CONTROL AND COMMUNICATION ROUTES

As was seen in the previous chapter, following the control route led to the core being identified by the term the paradox of autonomy, which was taken to refer to some sense of circularity, associated with some notion of autonomy and identity, and connected to a long standing debate within the archival field with regards to how to identify the creating agency behind identities known as the fonds and the recordkeeping system.

Following the communication route, led to this core being further fleshed out. The paradox of autonomy then, came to be expressed in terms of;

- how it was possible for a creating agency to be independent or autonomous, when, as Duchein asserted, 'no administration possesses, stricto sensu, an absolute power to regulate its affairs "without the intervention of an outside or higher authority"' (69)

- how it was possible to communicate (bridge the gap between the separateness of individuals) without 'demanding that the other defend

themselves in worlds of our own constructions [sic]' (Dervin, Reinhard and Shen).

Moreover, it started to take on the form of the combination of the ideas of 'closed', 'open' and 'autonomous'.

That both the control and communication routes came together in the way discussed above, convinced the researcher that the theory being constructed was starting to integrate and to knot within itself. And yet, despite this seeming internal coherence, the theory remained to the researcher, as it probably does to the reader, a little vague. Further integration was needed before it could be said to either make sense in itself or make sense of archival description.

The following two chapters will therefore show how sense was made of the core through the integration of the emerging ideas with theories from both the field of cybernetics, which had already worked its way into the theory as highlighted above, and that of archival science.

CHAPTER SEVEN: MAKING SENSE OF THE CORE: CYBERNETICS

Towards the end of the last chapter, the reader was introduced briefly to the field of cybernetics, which was seen as dealing with the same ideas (control and communication) as those which had emerged during open coding. As such, it seemed possible that, as theoretical coding began, this field could offer further insight into the problem at the core, which had been expressed in a number of different ways:

- What does autonomy mean? How does it relate to being an organic whole, being independent, having functional sovereignty? (chapter five)

- How is it possible for a creating agency to be independent or autonomous, when, as Duchein asserted, 'no administration possesses, stricto sensu, an absolute power to regulate its affairs "without the intervention of an outside or higher authority"' (69) (chapter six)

- How is it possible to communicate (bridge the gap between the separateness of individuals) without 'demanding that the other defend themselves in worlds of our own constructions [sic]' (Dervin, Reinhard and Shen) (chapter six)

Being now at the end of the process, the researcher is convinced that cybernetics did offer further insight, indeed that it offered a possible answer. And so, if readers are to make sense of the core in the same way as the researcher, they too will need an introduction to this field.

It is of course, open to readers to make sense of the core (brought into definition in the previous chapters) in a completely different way. Indeed, this is to be encouraged and expected – after all not everyone is interested in making sense of archival description in the way the researcher has done. However, for the

purposes of this thesis, it is necessary that the researcher present the way in which she (at this point) has made sense of what has emerged. Otherwise she could be accused of writing non-sense.

This chapter will seek to give a little background about the field of cybernetics, before returning to the distinction (between trivial and non-trivial machines made by Heinz von Foerster and alluded to by Angelika Menne-Haritz) which initially brought the emerging thread, outlined previously, into contact with cybernetics. It will then start to explain how cybernetic theory provides a framework within which it is possible to explore further the ideas with which the previous chapter ended, those of 'closed', 'open', and 'autonomous'.

CYBERNETICS

The arrival of cybernetics as a distinct field is generally dated to 1948, with the publication of a book of the same name by Norbert Wiener (1894-1964), then employed at the Massachusetts Institute of Technology (MIT)[1]. The pre-history of cybernetics can, however, be traced back as far as the sixth century BC, as illustrated by a timeline published on the website of the American Society for Cybernetics (founded 1964). Those presenting this timeline however, make the point that:

> assembling a linear timeline for cybernetics is not as straightforward as is the case for other disciplines. Cybernetics precipitated out of diverse threads of work fortuitously intersecting during the 1940's. In the ensuing decades, the themes circumscribing cybernetics' original definition

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[1] The full title of Wiener's book is *Cybernetics or Control and Communication in the Animal and the Machine*. The sub-title then echoes the definition, given in the previous chapter, of cybernetics as 'The field of study concerned with communication and control systems in living organisms and machines' ("Cybernetics" def. 1).

diverged again to engender or facilitate the rise of an even greater diversity of fields, labels, and disciplines. (American Society for Cybernetics, Foundations)

Cybernetics has then, always been interdisciplinary, or indeed transdisciplinary. The 'diverse threads' which came together in the 1940s at a series of meetings known as the 'Macy Conferences' included sociology, social science, anthropology, neurophysiology, psychology, mathematics and electrical engineering.[2] Heinz von Foerster (1911-2002), although not at the first of these conferences, attended the later ones (the 6th to 10th, held between 1949 and 1953) (American Society for Cybernetics, The Macy Conference Attendees). It was von Foerster who suggested that the title of these conferences be changed from Circular Causality and Feedback Mechanisms in Biological and Social Systems to Cybernetics (Franchi, Güzeldere and Minch).

What then was it that united all these diverse fields? For von Foerster, it would seem to have involved similar notions (in this instance circularity and closure) to those which have been sensed at the core of the current research. For, as he put it:

> For me cybernetics was a fascinating notion, because it introduced for the
> first time -- and not only by saying it, but also methodologically -- the
> notion of circularity, of circular causal systems. And I thought that from
> an epistemological point of view that was very important. So I stressed in
> my preface [to the Proceedings of one of the Macy Conferences] the
> epistemological wit of the notions of circular causality, circular
> operations, closure, closed system, and so forth. (Franchi, Güzeldere and
> Minch).

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[2] Kurt Lewin, who was quoted at the beginning of chapter two was also an attendee on some occasions (he died in 1947), as was Claude Shannon, whose work was mentioned in chapter six (American Society for Cybernetics, The Macy Conference Attendees).

It is noticeable however, that in the years following the Macy Conferences, 'cybernetics has not really become established as an autonomous discipline' (Heylighen and Joslyn 4). Rather, as von Foerster put it, it appears to have 'melted, as a field, into many notions of people who are thinking and working in a variety of other fields' (Franchi, Güzeldere and Minch).

Cybernetics is however, seen as having a particularly strong affinity with another field, General System Theory, which also emerged in the post war period. General System Theory is also named from a publication of the same name, one published by the biologist Ludwig von Bertalanffy (1901-1972), and dating from 1968 (*General System Theory*). Von Bertalanffy had, however, used the term General System Theory earlier, for example in the title of an article published in the *British Journal for the Philosophy of Science* in 1950 (An Outline of General System Theory 134-165). In 1954 von Bertalanffy and others established the Society for the Advancement of General Systems Theory (renamed the Society for General Systems Research in 1956 and today known as the International Society for the Systems Sciences).

That there is an overlap between these two fields can be seen by comparing the lists of attendees at the Macy Conferences with the list of past presidents of the International Society for the Systems Sciences (American Society for Cybernetics, The Macy Conference Attendees; International Society for the Systems Sciences, Past Presidents). Von Foerster, for example, appears on both lists, as does Margaret Mead, the American anthropologist. The exact nature of the overlap is, however, more difficult to discern. As Heylighen and Joslyn put it; 'there remain arguments over the relative scope of these domains' (3).

One way of characterising the relative scope of these domains is that, if cybernetics (at least according to von Foerster) emphasised circularity and closure, General System Theory emphasised unity and openness. For example, von Bertalanffy made a distinction between closed and open systems, writing

that, 'The characteristic state of the living organism is that of an open system', and that, 'So far, physics and physical chemistry have been almost exclusively concerned with closed systems' (An Outline of General Systems Theory 155). He also made the point that:

> The consideration of open systems is more general in comparison with that of closed systems; for it is always possible to come from open to closed systems [...] but not *vice versa.* (An Outline of General System Theory 156)

Here then we begin to see the reasoning behind his stated belief that 'the future elaboration of General System Theory will prove to be a major step towards the unification of science' (An Outline of General System Theory 165).

It is possible then, to see both the idea of circularity, and a distinction between closed and open, within the melting pot of ideas that crystallised in the post war years around the terms cybernetics or general system theory. During the 1970s, however, something else started to coalesce, something which came to be known as second order cybernetics. It is with this development that von Foerster's trivial and non trivial machines re-enter the stage.

SECOND ORDER CYBERNETICS

Von Foerster is also linked to the development of second order cybernetics. In 1973/4 he taught a course at the University of Illinois entitled Cybernetics of Cybernetics. This course led to the production of the 1974 volume 'Cybernetics of Cybernetics', which is seen as the foundational work for second order cybernetics, in a similar way to that in which those of Wiener and von Bertalanffy are viewed for cybernetics (first order) and general system theory (von Foerster, *Cybernetics of Cybernetics*). As Heylighen and Joslyn point out, however, care

should be taken to see the move from first order to second order cybernetics less as 'a clean break', and more as 'a continuous development' (4). Why then is there a difference between first and second order cybernetics? Heylighen and Joslyn see it as arising from a need, felt by some of those involved in the field, 'to clearly distinguish themselves from [...] more mechanistic approaches, by emphasizing autonomy, self-organization, cognition, and the role of the observer in modelling a system' (3). It is 'autonomy' that has emerged as lying at the core in the previous two chapters, but it is 'the role of the observer in modelling a system' which is often emphasized in making the distinction between first order and second order cybernetics. For, von Foerster himself wrote of first order cybernetics as 'the cybernetics of observed systems' and second order cybernetics as 'the cybernetics of observing systems' (*Cybernetics of Cybernetics* 1).

A visualisation of this difference is provided by a set of diagrams, used by Margaret Mead and Gregory Bateson, in the course of an interview with Stewart Brand published in 1976. In the interview, Mead and Bateson speak of how 'The [first order] cyberneticians in the narrow sense of the word went off into input-output' and seek to distinguish such cyberneticians from those [second order] who are 'not really concerned with an input-output' and who think that 'organism-plus-environment, is to be considered as a single circuit' (Brand 37). These diagrams are reproduced overleaf.

[This material has been removed for copyright reasons.]

Figure 7.1: Diagrams reproduced from an interview with Margaret Mead and Gregory Bateson (Brand 37)

Mead and Bateson also characterize the difference (between first and second order cybernetics) in terms of the 'lines around the box' and the fact that, whereas 'the engineer is outside the box […] Wiener is inside the box' (Brand 37). The difference between first and second order cybernetics would seem to be one of perspective, to depend on whether the individual sees themselves as outside or inside. This difference will be considered further in what follows and the ideas of perspective and observation will be considered in greater detail in chapter nine.

A similar set of diagrams can also be seen in the work of von Foerster, who in explaining and elaborating his own second order perspective made a distinction between trivial and non trivial machines. These diagrams are reproduced overleaf.
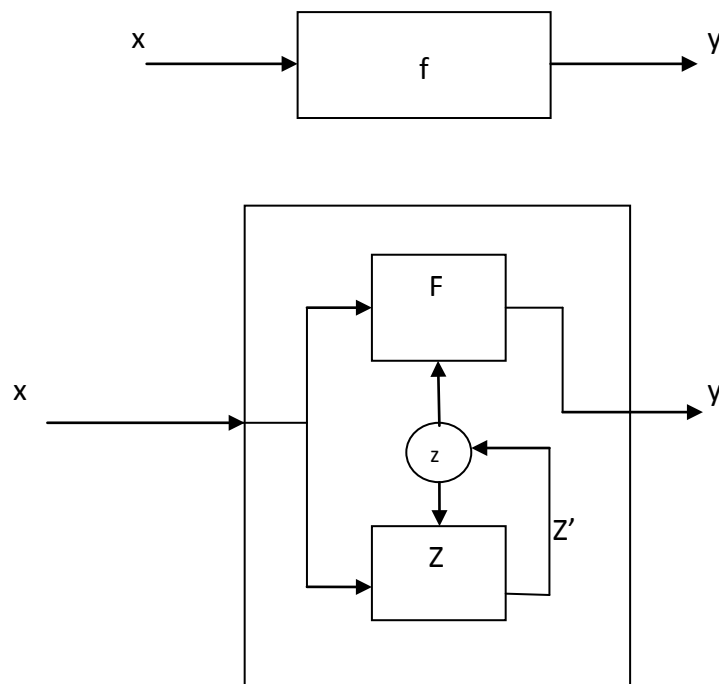
Figure 7.2: Trivial and non-trivial machines

(redrawn from von Foerster, Understanding Understanding 310, 311)

The first of these diagrams represents the trivial machine, the second the non-trivial one. One way in which to consider the difference between these two types of machine is in terms of the relationship between input and output. In a trivial machine, there is a fixed relationship between input and output, which can be worked out by looking at the relationship between inputs and outputs. Once this relationship is determined it is possible to accurately predict the output for any given input. In a non-trivial machine, the relationship between input and output also depends on an inner state, an additional parameter, represented by the letter Z on the diagram above. This parameter means that it is impossible, by observing the relationship between inputs and outputs to work out what connects input and output. Consequently such machines are unpredictable.

In this way, trivial machines can be said to be predictable, whereas non-trivial machines can be said to be unpredictable. In addition trivial machines can be said to be history independent, since the input-output relationship is always the

same, existing as it were out of time, whereas non-trivial machines are history dependent, since the inner state (and hence its effect on the relationship between input and output) is itself contingent on the specific history of inputs.
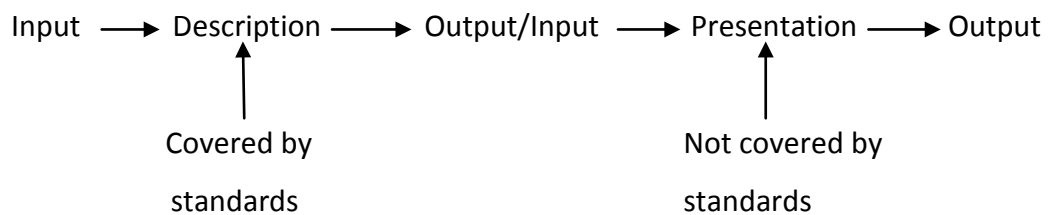
INPUT AND OUTPUT IN ARCHIVAL DESCRIPTION

As was stated in the previous chapter, the distinction between trivial and non trivial machines was invoked by Menne-Haritz in her attempts to define 'the difference between operationally open and operationally closed processes' (Business Processes 13). And, this was done in the context of her drawing another distinction, that between production and decision-making processes. This context began to seem more relevant, given the language of input and output which was now being encountered; for processes, especially production processes, are often conceived as having input and output.

Towards the end of chapter six it was suggested that archival description could be seen as both a production and a decision making process. It is however, a production process which is stressed in the *ISAD(G)* definition of archival description as, 'the creation of an accurate representation of a unit of description and its component parts, if any' (ICA Committee on Descriptive Standards 10). Thinking in these terms, brought the researcher to another idea, identified within the discourse on archival description, which she chose to label with the phrase 'output is not input'. This phrase came from an article by Wendy Scheir exploring 'novice user experience with online finding aids' (49-85).

The context for Scheir's statement that 'output is not input' was that many of the standards used to standardize the practice known as archival description seek to portray themselves as 'output neutral', that is they do not set down the way in which the description created is to be presented (Scheir 50). The current edition of *ISAD(G),* for example, states that 'the standard does not define output

formats, or the ways in which these elements are presented, for example, in inventories, catalogues, lists, etc' (ICA Committee on Descriptive Standards 7). The idea would then, seem to be that the material to be described is input into the process of archival description, as governed by the standards for archival description, and this leads to an output, description perhaps, which can then be input into a process of presentation, which is not covered by the standards, i.e.

Input ⟶ Description ⟶ Output/Input ⟶ Presentation ⟶ Output

Covered by standards

Not covered by standards

Figure 7.3: Input and Output in Archival Description (1)

In this way then, the standards can portray themselves as output neutral since the output that results from the process they govern is not seen as output, but as input to the process of presentation they do not govern.

Scheir also states that 'it is essential to establish a clear distinction between input and output, even while acknowledging that description and presentation are inextricably intertwined' (50). Looking at the above model however, it is difficult to see how a clear distinction between input and output can be established, without the establishment of an equally clear distinction between the processes of description and presentation. For, to create a clear distinction between the output and input in the middle of the above diagram, there would need to be a similarly clear distinction between the process of description and that of presentation.

Having first seen this problem in relation to the idea that there is a process of description followed by a process of presentation, an attempt was made to see if

a similar point could be made in respect of the idea that there is a process of arrangement followed by one of description.

The idea that the practice known as archival description consists of two parts, arrangement and description, can be traced back, at least as far as Muller, Feith and Fruin's famous 1898 work, which has a title which translates as *A Manual for the Arrangement and Description of Archives*. And the distinction is still preserved in some instruction manuals, such as Kathleen Roe's *Arranging and Describing Archives and Manuscripts*.[3] The model developed above could then be redrawn as follows;

Input ⟶ Arrangement ⟶ Output/Input ⟶ Description ⟶ Output

Figure 7.4: Input and Output in Archival Description (2)

The idea of arrangement and description is associated with the fonds based method of describing and description is seen as following arrangement. Jenkinson, for example, characterized 'the making of the inventory' as 'a summarizing of the result [the output of the process of arrangement] upon paper' (98). Then again, Michael Cook wrote that:

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[3] Other instruction manuals that maintain the distinction include *Keeping Archives* and *Managing Archives: Foundations, Principles and Practice* (Bettington et al; Williams). It is noticeable that, whereas instruction manuals frequently continue to employ the distinction, the use of archival description as a single notion appears to be closely connected to the project to standardize it that arose in the late twentieth century. For example, many of the definitions for archival description quoted by Luciana Duranti in her article on 'The Origin and Development of the Concept of Archival Description' were developed by those attempting to define what they were trying to standardize (47-48). Perhaps it is necessary to conceive of it as a single thing if you seek to standardize it?

Arrangement and description are closely linked but quite separate activities. Experience shows that they should continue to be distinguished; arrangement should come first, and should be completed; description can then be started. (Information Management and Archival Data 59)

Once again then there is the problematic (at least to the researcher) idea that two processes associated with archival description are 'closely linked but quite separate' (M Cook, Information Management and Archival Data 59). This idea can also be found in the article by Jennifer Meehan, which has played a recurrent role in the ongoing discussion of the process of archival description. In that article, Meehan retains the arrangement and description distinction (her article being, after all, subtitled 'Evidence and Inference in Archival Arrangement and Description') but she also presents the two as a unified undertaking, as when she writes:

It [the process of arrangement and description] produces a single conceptual and physical entity—a processed collection [...] The analytical process in arrangement and description likewise transforms disparate parts (the bits and pieces of information available from existing sources) into a whole (an understanding of content, context, and structure) that is greater than the sum of its parts. (Making the Leap 89)

Here then however, although the arrangement and description are presented as one thing, a different distinction is drawn, namely that, commented on previously, between a production process (here seen in the production of 'a single conceptual and physical entity') and another type of process (here described as one of analysis). These two are also seemingly inextricably intertwined. The researcher began then, to see the sense in Menne-Haritz's assertion that processes of production and decision making (which the researcher aligned with the process of making sense, of reasoning, of analysis)

did not 'occur as a pure form in the real world' (Business Processes 13). And, the researcher went on to explore the idea of processes which were 'inextricably intertwined' and 'closely linked but quite separate' by constructing a diagram showing archival description as a non trivial machine (Scheir 50; M Cook, Information Management and Archival Data 59). This diagram is shown below.
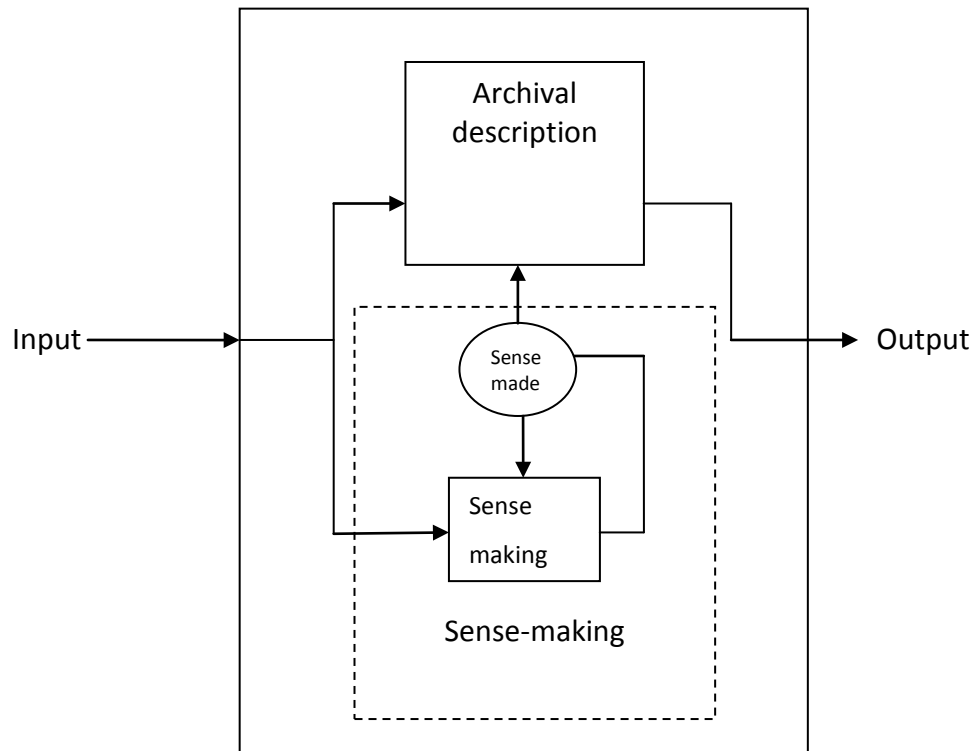
Figure 7.5: Archival description as a non-trivial machine

Breaking this diagram down, a number of different perspectives were possible. Firstly, for example archival description could be viewed as a single process with an input and an output (in which case everything within the largest box in figure 7.5 was not seen), as shown overleaf.
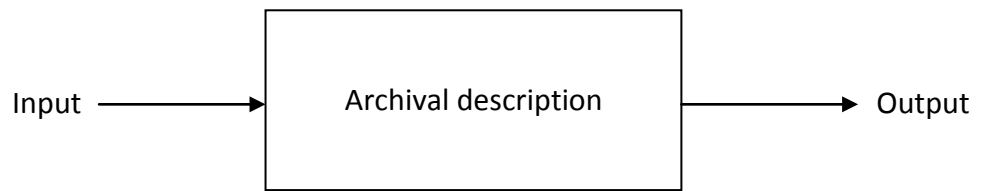
Figure 7.6: Archival description as single process

Alternatively, archival description could be seen as two inextricably intertwined processes (the two larger internal boxes in figure 7.5, one dotted, one not); firstly that of undertaking a practice known as archival description, one which led to the production of archival description, and secondly that of the sense making or reasoning of the individual undertaking the practice, thus;
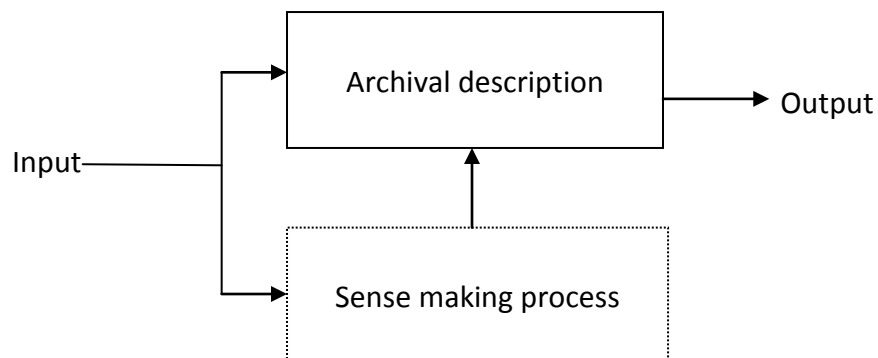
Figure 7.7: Archival description as a dual process

Finally, concentrating on the sense making process (looking only at what lay within the dotted internal box in figure 7.5), it was also possible to see a closed loop, such that the sense made by the process of sense making (its output) could be seen not just as output, but also as re-input into the process, as shown overleaf.
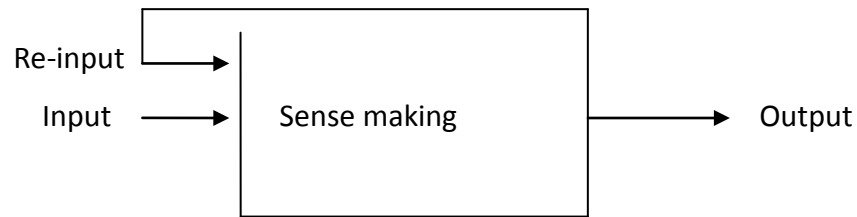
Figure 7.8: Sense making as a closed loop

Undertaking this thought experiment, the researcher began to see that output could also be input, not just into a separate process (as in figures 7.3, 7.4 and, in a slightly different way, 7.7), but into the same process. Further, this thinking began to reconnect with the feelings she had previously expressed with regards to archival description being seen as a means to an end, rather than an end in itself. In the previous chapter (p.143) she had suggested that too much attention had been paid to archival description as a means to the ends of contextualizing, preserving and rendering intelligible, rather than as the end of making sense. And yet, the process of making sense could also be seen as a means to an end in that it also had an end result, the sense made.

At this point, she felt that she was beginning to reach a similar position to that of von Foerster when he sought to distinguish first and second order cybernetics in the following way;

> So, what's new of today's cyberneticians? What is new is the profound insight that a brain is required to write a theory of a brain. From this follows that a theory of the brain, that has any aspirations for completeness, has to account for the writing of this theory. And even more fascinating, the writer of this theory has to account for her or himself. Translated into the domain of cybernetics; the cybernetician, by entering his own domain, has to account for his or her own activity. Cybernetics then becomes cybernetics of cybernetics, or *second-order cybernetics*. (Understanding Understanding 289)

And so, if the researcher wished to explain the process of making sense which she now saw as a part of the process of archival description, she would need to account for her own making sense in her making sense of making sense.

Certainly, so doing seemed to offer the possibility of achieving Jennifer Meehan's aim 'to make some of the archivist's implicit processes more explicit' (Making the Leap 90). It also led however, straight back to the dizzying sense of circularity, so often encountered in this investigation. Slowly then, the researcher did feel that she was beginning to understand the cybernetic perspective, the difference between first and second order cybernetics, and what Heylighen and Joslyn might have meant when they spoke of emphasising 'cognition, and the role of the observer in modelling' (3). The significance of autonomy and self-organization, however, remained obscure, nor had an understanding of the difference between operationally closed and operationally open been achieved. Further attention was therefore paid to second order cybernetics.

SECOND ORDER CYBERNETICS REVISITED

As was shown above, von Foerster is strongly associated with second order cybernetics, but there are many others. Mead, for example, also mentioned above, used the term 'cybernetics of cybernetics' as far back as 1967 in a paper given to the American Society for Cybernetics (Mead 1-11).[4] Then again, other names associated with the ideas of the field include; Gordon Pask (1928-1996), Humberto Maturana (b.1928), Francisco Varela (1846-2001), Niklas Luhmann (1927-1998), Stafford Beer (1926-2002) and Peter Checkland (b.1930) (American Society for Cybernetics, Noted Contributors to Cybernetics and Systems Theory;

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[4] In 2010 the society referred back to that paper in launching a Cybernetics of Cybernetics Competition which sought ideas for how it might be run more in line with cybernetic principles. The page launching this competition states, however, that the title was given to her by von Foerster (American Society for Cybernetics, Cybernetics of Cybernetics Competition).

International Society for the Systems Sciences, Luminaries of the Systemics Movement).

One of these luminaries, Niklas Luhmann, has already been encountered, with regards to his ideas about communication. He also provides, in his volume *Social Systems*, an alternative view of the development of first and second order cybernetics, one which the researcher found particularly useful. It served as a stepping stone on the way to achieving the understanding of autonomy, self-organization, and of the difference between operationally closed and open, which she was still, at this point, seeking. That it proved an accessible way into these ideas was due, in good measure, to the fact that it resonated with a number of other differences with which she was familiar, namely, those between the fonds and series based approaches (as discussed in chapter one) and between closed and open fonds (as discussed in chapter six).

ALTERNATIVE VIEWS (1): FONDS AND SERIES APPROACHES

In an introduction entitled 'Paradigm Change in Systems Theory', Luhmann speaks of 'two fundamental changes' within systems theory (Social Systems 5). Dealing with these in turn, the first, he says, was 'to replace the traditional difference between *whole and part* with that between *system and environment*' (original emphasis)(Social Systems 6). This change, Luhmann would appear to equate with the development of cybernetics of the first order – for example, he speaks of von Bertalanffy as the leading author of this transformation (Social Systems 6).

The researcher's attention was grabbed by the phrase 'whole and part'. The way in which the fonds is seen as a whole was highlighted in chapter five. Then again, it is clear from the titles of articles such as Terry Eastwood's "Putting the Parts of the Whole Together: Systematic Arrangement of Archives" and Jennifer

Meehan's "Making the Leap from Parts to Whole: Evidence and Inference in Archival Arrangement and Description" that the fonds is also seen to contain parts.

By way of further example, Terry Cook has written that 'How to treat the part without losing sight of the whole is, in a nutshell, the dilemma of all archival arrangement and description' (The Concept of the Archival Fonds 31). Laura Millar has warned of the dangers of 'ignoring how they [records] came to be parts not wholes' (14). And, Meehan speaks of transforming 'disparate parts [...] into a whole [...] that is greater than the sum of its parts' (Making the Leap 89). If the fonds based approach would seem to reflect Luhmann's 'traditional difference between whole and part', could not then the series system reflect that 'between system and environment' (Social Systems 7)? Certainly it would seem to be possible to take that view. For example, one distinctive feature of the series system is the separation of, in Peter Scott's terms, record control and context control. It is not too much of a leap to see context as environment, but the notion of record as system is more difficult. And yet, as we have seen, in devising the series system Scott did reference something he called the recordkeeping system – an agency being 'a part of an organisation that has its own independent recordkeeping system' (Scott, The Record Group Concept 501).

As was stated above, Luhmann sees von Bertalanffy as an important influence in the change from 'whole and part' to 'system and environment', so it seems sensible to expand on the brief account of his work given earlier in this chapter. In elaborating his General System Theory, von Bertalanffy expressed the belief that its future development 'will prove to be a major step towards the unification of science' and such unification seems to be something he favours (An Outline of General System Theory 165). Certainly, science is a leading interest and, at the very beginning of his paper, he makes a distinction between the ways in which science has been and is now conducted, e.g.

in the past centuries, science tried to explain phenomena by reducing them to an interplay of elementary units which could be investigated independently of each other. In contemporary modern science, we find in all fields conceptions of what is rather vaguely termed ' wholeness.' (An Outline of General System Theory 134)

And, with regards to this conception of 'wholeness', he adds that;

What is meant by this concept is indicated by expressions such as 'system', '*gestalt',* 'organism', 'interaction', 'the whole is more than the sum of its parts' and the like. However, these concepts have often been misused, and they are of a vague and somewhat mystical character. (An Outline of General System Theory 142)

It is not however, this concept of wholeness that Luhmann uses when explaining how von Bertalanffy's work relates to the first of the fundamental changes, which he wishes to discuss (Social Systems 6). Rather, he emphasises von Bertalanffy's distinction between closed and open systems, writing that, 'A difference between open and closed systems thereupon appeared in theoretical descriptions' (Social Systems 7). And elsewhere he speaks of the change under consideration, not as representing a move from 'the traditional difference between *whole and part'* to 'that between *system and environment*', but as involving a change from 'the theory of closed systems' to 'the theory of open systems' (Social Systems 6; System as Difference 37).

ALTERNATIVE VIEWS (2): CLOSED AND OPEN FONDS

The distinction between 'closed and open systems' is discussed by von Bertalanffy in one section of his article on general system theory (An Outline of General System Theory 155-157). Here, he leads into the statement quoted

earlier that 'The characteristic state of the living organism is that of an open system' with a paragraph in which he discusses how 'It is the basic characteristic of every organic system that it maintains itself in a state of perpetual change of its components' (An Outline of General System Theory 155). He continues by stating that;

> Thus every organic system appears stationary if considered from a certain point of view. But what seems to be a persistent entity on a certain level, is maintained, in fact, by a perpetual change, building up and breaking down, of systems of the next lower order : of chemical compounds in the cell, of cells in the multicellular organism, of individuals in ecological systems. (An Outline of General System Theory 155)

In this passage, von Bertalanffy would seem to be making the same point as that made by the researcher when she wrote (in chapter four) that 'organic entities (the examples used were human beings and The National Archives) had to change to continue.' It is from this point that von Bertalanffy goes on to make the distinction between closed and open systems;

> We call a system closed if no materials enter or leave it. It is open if there is inflow and outflow, and therefore change of the component materials. (An Outline of General System Theory 155)

As was shown in the previous chapter, the terms closed and open are also used of the fonds. With regards to which, the term closed is applied when the creating agency behind the fonds ceases to exist, such that a closed fonds can be seen to be complete. This seems to resonate with von Bertalanffy's use of closed to indicate that no materials are entering or leaving the closed system. And, the resonance is also present in the following passage from an article by Terry Eastwood;

> Early writers on arrangement assumed that archivists were treating closed fonds of some long dead creating entity. Today, closed fonds, though they may be common enough in the archives of individuals and defunct organizations, are the exception rather than the rule. Archival institutions regularly receive accessions containing records accruing to holdings of one or more existing natural grouping, for example, to the records of a particular office or a particular series. (Putting the Parts of the Whole Together 97)

Certainly then, a fonds, it would seem, cannot be seen as closed for as long as material is flowing into it, although there is less clarity about material flowing out. Then again, in Eastwood's association between 'closed' and 'long dead' in respect of the fonds, there is a resonance with von Bertalanffy's association between living organisms and open systems.

The earlier discussion of closed and open fonds also included the following quotation;

> They [fonds of abolished agencies which have been integrated and mixed with the fonds of agencies which have succeeded them] are clearly closed fonds but, to the degree to which they have lost their individuality by reason of their integration into open fonds, they may no longer be treated, from the archival point of view, as autonomous fonds. (Duchein 75).

Returning to this quotation now, it becomes noticeable that there would appear to be not just closed and open fonds, but also autonomous fonds. The combination of 'closed', 'open' and 'autonomous' was noted earlier (at the end of chapter six), but no attempt was made until now to work out the lines of division between closed fonds, open fonds and autonomous fonds.

So, can a closed fonds be an autonomous fonds? The quotation above would seem to suggest that it can, so long as it does not lose its individuality by being integrated into an open fonds. Can an open fonds be an autonomous fonds? It is not clear, but perhaps it can, so long as it too does not lose its individuality. Is an autonomous fonds therefore sometimes a closed fonds and sometimes an open fonds? What does that mean?

The researcher still did not feel able to answer these questions, although she was beginning to suspect (partly due to the return of a sense of dizzying circularity) that they were the same questions she had been asking all along, albeit expressed in a different way. She also noticed that von Bertalanffy also seemed to introduce a third category into his discussion of open and closed, although he did not use the term 'autonomous', but referred instead to something he termed 'steady state';

> In the case in which the variations in time [such as metabolism and growth, form development, excitation, etc.] disappear, systems become stationary. Closed systems thus attain a time-independent state of equilibrium where the composition remains constant. In fact, closed systems *must* eventually reach a state of equilibrium, according to the second law of thermodynamics. Open systems *may,* provided certain conditions are given, attain a stationary state. Then the system appears also to be constant, though this constancy is maintained in a continuous change, inflow and outflow of materials. This is called a *steady* state. [...] Living systems are the most important examples of open systems and steady states. (An Outline of General System Theory 156-157)

For Duchein then, it appeared that autonomous fonds could be either closed or open. For von Bertalanffy, steady states could be seen in both closed and open systems. Did this mean anything? Had the researcher moved forward at all from the position that the answer seemed to lie in the combination of 'closed', 'open'

and 'autonomous' and that cybernetics might deal with the same issues? Possibly not, but one thing that she had not yet done was to investigate the second of Luhmann's two fundamental changes, which started the current discussion.

This change Luhmann describes as the shift from a theory of open systems, to one 'of observing or self-referential systems' (System as Difference 37). It can also be described as the shift from first to second order cybernetics, the understanding of which will be explored further in the next chapter.

SUMMARY

In this chapter readers have been introduced to a melting pot of ideas that may be termed cybernetics or general systems theory, and to a distinction within that field between cybernetics of the first order and those of the second order. It was suggested that the difference between first and second order cybernetics was one of perspective.

Readers were also reintroduced to the distinction between trivial and non trivial machines made by one of the architects of cybernetics, Heinz von Foerster. And, using the ideas conjured up by that distinction, the way in which archival description could also be seen as two 'closely linked but quite separate' processes was explored (M Cook, Information Management and Archival Data 59).

This exploration, particularly in regard to the process of sense making (seen as one of the sub-processes of archival description), led the researcher to begin to understand a number of themes relevant to defining the difference between first and second order cybernetics. These themes were 'cognition, and the role of the observer in modelling' (Heylighen and Joslyn 3). In this respect the researcher

came to see that, if she were to make sense of the making sense in archival description, she would need to account for her own making sense in making sense.

With this realization, the researcher returned to the development of cybernetics and saw resonances between the development of cybernetics of the first order (as characterized by Luhmann as the replacement of the difference between whole and part with that between system and environment) and the development of the series system method of describing. Finally, a discussion of the distinction between closed and open (since Luhmann also saw the development of first order cybernetics as a shift from a theory of closed systems to one of open systems) led back to the combination of 'closed', 'open' and 'autonomous' discussed towards the end of the previous chapter, although with the addition of a possible parallel, in the work of von Bertalanffy, with the combination of 'closed', 'open' and 'steady state'.

At the end of the thinking contained in this chapter, the researcher did not feel that she had reached a full understanding of the difference between first and second order cybernetics, nor did she think she had fully comprehended the difference between operationally closed and operationally open. As mentioned in the previous chapter, Menne-Haritz had suggested that this last difference would be explained by the difference between trivial and non-trivial machines. Sadly this had not proved the case, but it was possible that what might provide the desired explanation would be further examination of the ideas of cybernetics. This examination is outlined in the next chapter.

CHAPTER EIGHT: MAKING SENSE OF THE CORE: SECOND ORDER CYBERNETICS

This chapter seeks to build on the previous chapter by continuing to introduce the field of cybernetics and, in particular, by exploring further the difference between first and second order cybernetics, which has been encountered in terms of;

- 'emphasizing autonomy, self-organization, cognition, and the role of the observer in modelling a system' (Heylighen and Joslyn 3).

- a shift from a theory of open systems, to one 'of observing or self-referential systems' (Luhmann, System as Difference 37)

It is also the intention to attempt to gain a better understanding of two other sets of differences; firstly that between operationally open and operationally closed, and finally that between closed, open and autonomous/steady states, this last being the one which seems to lie at the core of this research and has been termed the paradox of autonomy.

This chapter can also be seen as the culmination of the account, started in chapter five, of the process of selective/theoretical coding undertaken in accordance with the grounded theory approach outlined in chapters two and three. At this point in the process the emphasis was more on theoretical coding and the theory with which the emergent ideas were being integrated belonged both to cybernetics and also to the archival field.

SELF ORGANIZATION

The first theme to be considered in this chapter is self organization. This concept was explored in a number of conferences and symposia held within the field of cybernetics in the late 1950s and early 1960s, including, for example, the 1961 Symposium on Self Organization, held at the University of Illinois.[1] It is not the intention of the researcher to define the concept of self organization or explain how that concept has come to be seen within the many fields in which it has subsequently been taken up. Rather, for the present study, it is sufficient to note that one outcome of the consideration of self organization for Heinz von Foerster was his expression of the idea that in the context of something termed self organizing systems 'the environment is a *conditio sine qua non*' since the term self organizing systems becomes meaningless 'unless the system is in close contact with an environment, *which possesses available energy and order*, and with which our system is in a state of perpetual interaction, such that it somehow manages to "live" on the expenses of this environment' (original emphasis)(Understanding understanding 3).

Seemingly then, a certain type of system, termed here self organizing, cannot exist without perpetual interaction with its environment. And so, given this perpetual interaction two questions worth asking might be; how then do we work out what is system and what is environment? Where is the boundary?

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[1] It was at the University of Illinois that Heinz von Foerster had established the Biological Computer Laboratory in 1958. The Biological Computer Laboratory ran until 1975. It is seen as having been one of the main centres for the study of cybernetics.

RECORDKEEPING SYSTEMS

The term boundary, as defined by the Oxford English Dictionary, means 'That which serves to indicate the bounds or limits of anything whether material or immaterial; also the limit itself' ("Boundary" def. 1). Given then that a question about the position of the boundary has been posed, in relation to the boundary between a certain type of system and its environment, it seems relevant to examine the boundary around a system commonly encountered within the archival discourse, namely the recordkeeping system.

As mentioned in chapters five and seven, the recordkeeping system appears in the work of Peter Scott in connection to the development of the series based method of describing. In Scott's original formulation, the recordkeeping system appears as a shadowy figure related to an element of context control called 'agency', for Scott stated that 'an agency is a part of an organization that has its own independent recordkeeping system' (The Record Group Concept 501).

In the years following this formulation, others have written about recordkeeping systems, but it is unclear whether the concept of the recordkeeping system has taken on more concrete form. One essay that seems to offer some hope of a more concrete form, is a 1993 article by David Bearman, which is entitled simply "Recordkeeping Systems" (16-36). In this article Bearman writes that;

> Record-keeping systems are preferred to these other concepts [fonds, record groups, or record series] because they have concrete boundaries and definable properties. (16)

And, when Bearman draws his recordkeeping system it does have a concrete boundary or box around it (21). And yet, in his text the recordkeeping system would seem to have quite a moveable boundary. For example, Bearman writes that;

> To understand record-keeping systems we must recognize them first as
> systems, and then, as information systems. Systems consist of
> interdependent components organized to achieve an end; information
> systems are organized collections of hardware, software, supplies,
> people, policies and procedures, and all the maintenance and training
> that are required to keep these components working together. (17)

And yet later in the same article, he writes of 'Other record-keeping systems, such as subject files, chronological transaction files, or incoming and outgoing correspondence' (22).

Far from being concrete then, the boundary to the recordkeeping system would seem to lie in a number of different places, depending on where it is drawn. Indeed, sometimes it would seem it is not even drawn. For example, in Chris Hurley's 1994 exposition of 'a conceptual model independent of (but, I hope, comprehending) various applications of the system [the series based method of describing] currently in use', a number of alternative applications are represented, as shown in figure 8.1 overleaf (The Australian Series System 150).

Option 1

```
        ┌──────────────────────┐
        │  Context (Provenance) │
        └──────────┬───────────┘
                   │
           (Recordkeeping system)
                   │
         ┌─────────┼─────────┐
      ┌──┴──┐   ┌──┴──┐   ┌──┴──┐
      │Series│  │Series│  │Series│
      └─────┘   └─────┘   └─────┘
```

Option 2

```
        ┌──────────────────────┐
        │  Context (Provenance) │
        └──────────┬───────────┘
                   │
        ┌──────────┴───────────┐
        │  Recordkeeping system │
        └──────────┬───────────┘
         ┌─────────┼─────────┐
      (Series)  (Series)  (Series)
```

Option 3

```
        ┌──────────────────────┐
        │  Context (Provenance) │
        └──────────┬───────────┘
                   │
        ┌──────────┴───────────┐
        │  Recordkeeping system │
        └──────────┬───────────┘
         ┌─────────┼─────────┐
      ┌──┴──┐   ┌──┴──┐   ┌──┴──┐
      │Series│  │Series│  │Series│
      └─────┘   └─────┘   └─────┘
```
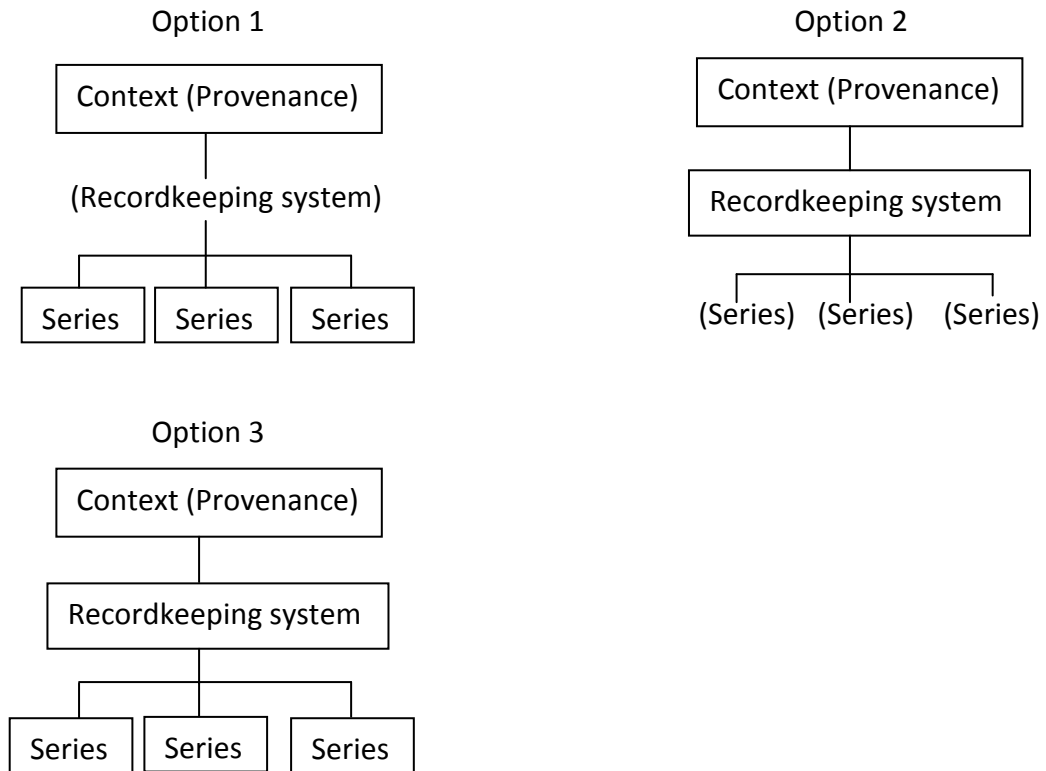
Figure 8.1: Alternative implementations of the recordkeeping system (redrawn from Hurley, The Australian 'Series' System 160)

In providing these options Hurley notes that option 1, where the recordkeeping system is not described as an entity in itself (hence the brackets as opposed to the box) is the one currently favoured for paper records, although option 2 is considered a possibility for electronic records. It is noticeable that in all these options, however, Hurley seems to depict the recordkeeping system as a higher level entity made up of a number of record series, but does not provide any help in defining the boundary around the system. Indeed with regards to the option most commonly applied (option 1), he does not even draw a boundary, only a set of brackets. The recordkeeping system can then still be seen as a shadowy figure with boundaries that are moveable. And, with regards to these boundaries, Bearman, for one, takes both a maximalist position – the recordkeeping system consists of 'hardware, software, supplies, people, policies and procedures, and all the maintenance and training that are required to keep these components

working together' – and a minimalist one – the recordkeeping system is a subject or transaction file (Recordkeeping systems 17; 22).

In regard to the recordkeeping system then, it would seem difficult, once again, to work out what is system and what is environment. Could the recordkeeping system then be akin to von Foerster's self-organizing system? Maybe, but Bearman does not describe it in such terms; rather he defines it as 'an organic whole' (Recordkeeping Systems 22).

ORGANIC WHOLES

The idea of the organic whole has been noted in previous chapters in respect of the fonds, but it would seem that it can also be encountered in respect of the recordkeeping system. This similarity between them can then, be added to that already noted (in chapter five) whereby both seemed to rely on circular arguments in respect of identifying the creating agency behind their identities. At that time, attention was paid to a long running debate within the archival field, about how to draw the boundary around (or determine the identity of) the fonds, and above a similar question was considered in the context of the recordkeeping system. It seems possible then, that one characteristic of the organic whole (be it termed fonds or recordkeeping system) is that it is difficult to determine where the boundary around it lies. Another characteristic may be that, as such, it is possible to take both maximalist and minimalist positions, as shown above for the recordkeeping system and in chapter five for the fonds.

It is also possible to see a difficulty over boundaries reflected in the discourse concerning what are known as the principles of provenance and original order. The idea of provenance was discussed in chapter one, where it was noted that the first articulation of this idea took the form of an application, a practice, which is referred to in this thesis as fonds based archival description. It was shown how,

at least in 1910, it was this practice that was equated with the principle of provenance. Subsequently it was noted that archivists around the world still hold themselves to be governed by something called the principle of provenance, although there is confusion about what that means. A number of different interpretations were given, including the following;

> The **principle of provenance** or the ***respect des fonds*** dictates that records of different origins (provenance) be kept separate to preserve their context. ("Provenance").

> The principle of provenance has two components: records of the same provenance should not be mixed with those of a different provenance, and the archivist should maintain the original order in which the records were created and kept. (Gilliland-Swetland, Anne, *Enduring Paradigm, New Opportunities* 12)

This confusion was not examined in any detail in chapter one. Instead, an attempt was made to trace how the idea of provenance had come to be freed from its articulation as fonds based archival description and to examine some of the ramifications and consequences of that separation.

Concentrating on the confusion though, it soon becomes clear that a major point of difference exists between whether the principle of provenance and that of original order are seen as two components of the same overarching principle (see Gilliland-Swetland above) or whether they are stated as two separate principles, as, for example in the Australian text *Keeping Archives*, where it is stated that:

> The principle of provenance dictates that the archives of one provenance shall not be mixed with the archives of another provenance.

> The principle of original order dictates that archives should be maintained in the original order in which the records were kept when active – that is, the order in which they were placed when they were created, maintained and used. (Milton 253)

Regarding them as separate serves to emphasise that there are real difficulties in maintaining a balance between adhering to both the principle of provenance and that of original order. Historically, it has been original order, which has tended to be downplayed.

For example, in the early 1930s there was discussion between the Swedish archivist Carl Weibull and R Fruin, one of the authors of the Dutch Manual, which is related as follows by Peter Horsman;

> Weibull […] criticizes the idea that within a *fonds* the archivist must preserve the original order as it came from the creator of the *fonds*. That order might have served the administration, but it seldom serves historical research. […] Fruin replies that Weibull is right that the purpose of the archivist is to help archive users to do their research, but by re-arranging a fonds on the basis of subject-orientated classification schemes, […] without preserving the administrative order of the documents, the archivist is being subjective. (Taming the Elephant 52)

Then again, in 1982, the principle of original order was again questioned, in an article by Frank Boles, entitled 'Disrespecting Original Order' e.g.

> Original order is to be respected when it is usable; but just as Einstein's theory guides physicists when Newtonian law can be applied no further, so a theory of simple usability can guide archivists when original order becomes inadequate. (32)

Four years later, in a series of articles about the series system, Colin Smith put forward the view that Weibull and Boles could be (and generally were) seen in the guise of heretics, since the orthodox view was that archives should not be arranged into subject order and that the original order must be upheld. He also however, spoke of those who followed the fonds based method, and its advocates such as Duchein, as guilty of what he called 'orthodox disrespect' for original order. He laid this charge on the grounds that the fonds based approach made allowances for changes to be made in order at lower levels, thus making the principle of original order subservient to that of provenance. That the series system did not do so was one of his reasons for favouring it (Smith, A Case for Abandonment 161-166).

Quite apart from the question of whether or not archives should be arranged into subject order or reflect that of the administration which created them (the orthodox view being the latter), it becomes clear in Smith's work that there are real difficulties in balancing the principles of original order and provenance. Just as Smith was able to lay a charge of disrespect (of original order) against fonds based archival description, others were able, indeed did, lay a charge of disrespect (of provenance) against the series system (Fischer 640-45).

Perhaps one advantage of downplaying the separation between provenance and original order, of treating them as two components of a single overarching principle is that it is easier to gloss over these difficulties. Looking beyond this cynical view however, is it also possible that downplaying the separation between provenance and original order provides a more accurate depiction of what archivists are seeing? Recently, those who see provenance and original order as two components of a single overarching principle have started to invoke the idea of inside and outside, as shown in the following quotations from Horsman and Cook;

To make things clear, I consider the Principle of provenance to be the only principle of archival theory. This principle may have an outward application, which is to respect the archival body as it was created by an individual, a group or an organization as a whole. We call this Respect des fonds. The Principle of provenance may also be applied inwardly, respecting the original order given to the documents by the administration which created them. My thesis in this paper, is that both parts of the Principle of provenance form an inseparable whole. (Horsman, Taming the Elephant 51)

The fonds concept derives, of course, from the nineteenth-century French archival dictum ***respect des fonds.*** That French formulation had both an external and an internal dimension. Early practice stressed the **external** dimension of keeping archival records clearly segregated by their office of creation and accumulation (each such group of records thus being organized into a single archival fonds). The **internal** dimension of maintaining the original order or sequence of records from such offices **within** each fonds was less emphasized. (T Cook, The Concept of the Archival Fonds 25)

It would seem then, that at the very heart of the principles said to govern archival description there is a difficulty in balancing internal and external dimensions. Could this be another way of seeing a difficulty with deciding where to put the boundary around something sometimes called an organic whole, with working out, for something sometimes called a self-organizing system, what is system (internal) and what is environment (external)? Is it this difficulty that archivists are seeing and attempting to express when they use the idea of two sub-principles (provenance and original order) in one overarching principle?

It is impossible to say for sure, but certainly it is this difficulty which has been seen, again and again, to lie at the heart of the present investigation. Consider the questions raised in chapter six;

- How is it possible for a creating agency to be independent or autonomous, when, as Duchein asserted, 'no administration possesses, stricto sensu, an absolute power to regulate its affairs "without the intervention of an outside or higher authority"' (69)

- How is it possible to communicate (bridge the gap between the separateness of individuals) without 'demanding that the other defend themselves in worlds of our own constructions [sic]' (Dervin, Reinhard and Shen)

The common thread would seem to be how it is possible to be separate and not separate at the same time. Then again, consider the question, first raised in chapter seven, of whether an autonomous fonds is sometimes a closed fonds and sometimes an open fonds? Could this not be seen as another way of expressing the question, how can a fonds, which is independent, be sometimes closed off from its environment and sometimes in interaction with it?

Ultimately then, a research question has emerged and it has been shown that to answer the question 'what is archival description?', to gain the deeper understanding of that practice which is sought, it will be necessary to deal with the question of how is it possible to have separateness without being separate, to be a whole without being a whole. For it would appear that a certain type of whole, the self organizing system or organic whole, fonds or recordkeeping system, only makes sense as a whole if it is seen as being in perpetual interaction with its environment, meaning that it is at the very least difficult, perhaps even impossible, to work out where the line is that makes it a whole separate from its environment.

Fortunately, with the emergence of the question, also comes the emergence of a solution. For, what is needed is what von Bertalanffy saw in general system theory, that is 'a new scientific doctrine of ' wholeness' to replace the vague concept that 'is indicated by expressions such as 'system', '*gestalt',* 'organism', 'interaction', 'the whole is more than the sum of its parts' and the like' (An Outline of General System Theory 134, 142). This thesis sees that scientific doctrine in a concept known as autopoiesis. This concept was initially developed by the Chiliean biologists, Francisco Varela and Humberto Maturana and proved very influential within the field of second order cybernetics.

AUTOPOIESIS

The problem, which lies at the heart of this investigation is now being expressed in terms of 'wholeness', but it has also been expressed in terms of the paradox of autonomy. Autonomy was also of interest to Varela and Maturana, who developed autopoiesis, indeed it was what led them to it as well. As biologists, Varela and Maturana dealt with organic wholes, not in the guise of fonds or recordkeeping systems, but in the guise of living things:

> In our common experience we encounter living systems as unities that appear to us as autonomous entities [...] In these encounters autonomy appears so obviously an essential feature of living systems that whenever something is observed that seems to have it, the naive approach is to deem it alive. Yet, autonomy, although continuously revealed in the self-asserting capacity of living systems to maintain their identity through the active compensation of deformations, seems so far to be the most elusive of their properties. (Maturana and Varela, *Autopoiesis and Cognition* 77).

Their way of bringing this elusive property into sharper focus was by using an idea, which they chose to term 'autopoiesis'. Thus, they state that 'the

mechanism that makes living beings autonomous systems is autopoiesis. This characterises them as autonomous systems' (Maturana and Varela, *The Tree of Knowledge* 48).

Autopoiesis was used by Maturana and Varela to replace another term, circular organization, which they used earlier to refer to the same idea. Autopoiesis means literally 'self production' because an autopoietic system (a system with autopoietic organization):
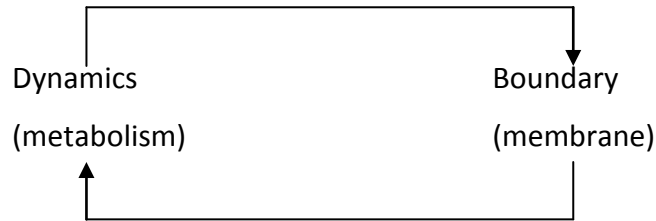
> is such that their only product is themselves with no separation between producer and product. The being and doing of an autopoietic unity are inseparable, and this is their specific mode of organization (Maturana and Varela, *The Tree of Knowledge* 49).

Put another way, to make the connection with the earlier discussion of the boundary between system and environment:

> The most striking feature of an autopoietic system is that it pulls itself up by its own bootstraps and becomes distinct from its environment through its own dynamics in such a way that both things are inseparable. (Maturana and Varela, *The Tree of Knowledge* 46-47)

By way of example, Maturana and Varela speak in terms of the way in which, when looking at a cell:

> on the one hand, we see a network of dynamic transformations that produces its own components and that is essential for a boundary; on the other hand, we see a boundary that is essential for the operation of the network of transformations which produced it as a unity:

```
          ┌──────────────────────────────┐
          │                              ▼
     Dynamics                       Boundary
     (metabolism)                   (membrane)
          ▲                              │
          └──────────────────────────────┘
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> Note that these are not sequential processes, but two different aspects of a unitary phenonmenon. (Maturana and Varela, *The Tree of Knowledge* 46-47)

It is with this idea of autopoiesis that it is finally possible to offer an explanation for another of the sets of differences encountered, namely that between being operationally open and operationally closed.

This difference was first encountered in chapter six through the work of Angelika Menne-Haritz in making a distinction between decision making and production processes. It also seemed to be entangled with another set of differences, which have come to be seen as important; closed, open and autonomous. For Menne-Haritz characterized decision making processes as open, yet operationally closed and production processes as operationally open, yet with a closed end. The former type of processes was also associated with the idea of 'autonomous'.

In her work, Menne-Haritz had appealed to the work of von Foerster and referred to his expression of a difference between trivial and non-trivial machines 'as an explanation of the difference between operationally open and operationally closed processes' (Business Processes 13). Unfortunately an examination of the difference between trivial and non-trivial machines undertaken in chapter seven did not provide such an explanation to the researcher. It did however, lead, via Menne-Haritz's work and a discussion of input and output in the process of archival description, to the beginnings of an understanding of the difference between first and second order cybernetics and

the realization by the researcher that, to make sense of archival description, she would have to account for her own making sense in that making sense.

Now it is possible to see, using the concept of autopoiesis, that an operationally closed or autonomous system is one which can become distinct from its environment (closed) through its own operations, but cannot be distinct from that environment and is, as such, also always open.[2] It has the appearance of constancy, of having a steady state, of being a separate whole, but it is in fact inseparable from its environment, except through its own ongoing operation which produces the appearance of its constancy.

This then is an answer to the question of how it is possible to have separateness without being separate, to be a whole (in the sense of having wholeness) without being a whole (in the sense of being distinct from everything else). And so, it would seem then that, what was thought of as a problem, can now be thought of as a solution.

For example, in chapter five, an issue was identified around the apparently circular arguments behind the identity of the creating agency behind entities known as the fonds and the recordkeeping system. At that point it was noted that Chris Hurley had written that changing from such a circular argument was 'undesirable until a more sophisticated archival concept of *creation* is uncovered' (Parallel Provenance 29). What was not noted in chapter five was that Hurley had also written that;

> When you separate creator from the created by means of a relationship, the archival meaning of *creation* should be located not in the identity of the creator but in the nature of the relationship. (Parallel Provenance 29)

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[2] The idea of being in a state of becoming has already been noted in the archival discourse. Sue McKemmish has written that 'The record is always in a process of becoming' (Are Records Ever Actual? 200).

Now, however, using the idea of autopoiesis, it is possible to see that this circular argument can be seen, not as a problem which requires 'a more sophisticated archival concept of creation', but as a more sophisticated archival concept of creation, one in which you do not separate creator from created (autopoiesis is self production), nor identity from agency (Parallel Provenance 29). For, if, as Maturana and Varela put it 'The being and doing of an autopoietic unity are inseparable', could not the identity behind the agency be the agency (doing) of the agency (being) (*The Tree of Knowledge* 49)?

It would seem then, that a solution has been found to the question which has appeared to lie at the heart of the current investigation. Moreover, the way in which the problem can also be seen as the solution would suggest that the theory being developed is fully integrated and knotted in on itself. The point has been reached when the theory can be said to make sense in itself. There are still, however, questions about how it helps to makes sense of archival description and these will be considered in the course of the rest of this chapter and the whole of the next.

First however, an attempt will be made to finish the exploration of the difference between first and second order cybernetics, which has been explained in terms of 'a shift from a theory of open systems, to one 'of observing or self-referential systems' (Luhmann, System as Difference 37). Of autopoiesis, Luhmann writes that it 'explains next to nothing, except this beginning with self-reference: an operation that possesses connectivity' (System as Difference 47). This interpretation then feeds into and flows from the ideas that 'a system *is* the difference between system and environment' and that;

> The system creates itself as a chain of operations. The difference between system and environment arises merely because an operation produces a subsequent operation of the same type.' (System as Difference, 36; 46)

Thus, whereas the theory of open systems still spoke in terms of system and environment separately, that of self-referential systems incorporated the difference between them within the system – the system was defined by reference to itself.

A UNITY OF DISTINCTION

Having encountered the idea of autopoiesis, the researcher chose not to go down the path of working out whether or not the fonds, or for that matter the recordkeeping system, was autopoietic.[3] This appeared to be too literal an approach. To move forward in her quest to make sense of archival description, it seemed more appropriate to explore where the new way of thinking encompassed in the concept of autopoiesis had led those who had encountered it previously to see if this new sense made better sense of the practice of archival description.

One place it seemed to lead is to something Maturana and Varela chose to term 'unity', which they defined as follows;

> That which is distinguishable from a background, the sole condition
> necessary for existence in a given domain. The nature of a unity and the
> domain in which the unity exists are specified by the process of its
> distinction and determination; this is so regardless of whether this
> process is conceptual or physical. (*Autopoiesis and Cognition* 138).

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[3] Those who wish to go down this path are referred to the 'six-point key for determining whether or not a given unity is autopoietic' contained within the article "Autopoiesis: The Organization of Living Systems, Its Characterization and a Model" (Varela, Maturana and Uribe 192). They might have trouble getting past number one though, e.g. 'Determine, through interactions, if the unity has identifiable boundaries. If the boundaries can be determined, proceed to 2. If not, the entity is indescribable and we can say nothing' (Varela, Maturana and Uribe 192).

The unity then would seem to be constituted by the making of a distinction between unity and background, e.g.

> The act of indicating any being, object, thing or unity involves making an act of distinction which distinguishes what has been indicated as separate from its background. […] A unity (entity, object) is brought forth by an act of distinction. Conversely, each time we refer to a unity in our descriptions, we are implying the operation of distinction that makes it possible. (Maturana and Varela, *The Tree of Knowledge* 40)

This operation of distinction is seen as important by Maturana and Varela. For example, elsewhere Maturana speaks of it as, 'The basic operation that an observer performs in the praxis of living' (Maturana, Ontology of Observing, 6.ii). And, Varela refers to it as 'One of the most fundamental of all human activities' (Varela, *Principles of Biological Autonomy* 84).

It is possible to see parallels with archival thinking. For example, this sense of unity brought forth, rather than pre-existing, would seem to resonate with some recently expressed ideas about the fonds, e.g.;

> the fonds (or "whole") will emerge organically through the descriptive activity of archivists' (T Cook, The Concept of the Archival Fonds 33).

> Making the leap from parts to whole is perhaps the biggest act of interpretation and representation involved in arranging and describing a body of records, since neither "whole"—the processed collection or the archivist's understanding of it—exists apart from the processes geared toward rendering it accessible and intelligible. (Meehan, Making the Leap from Parts to Whole 89)

How then to characterize this activity, or these processes, that allow the fonds to emerge? The following quotation from Jenkinson would seem to suggest that one possible characterization is that it is the act of making a distinction:

> The distinction on the slip of the Archive Division to which each document belongs is the first stage in Arrangement, and our introduction to the most difficult part of that task. These Divisions are, so to speak, the vertical lines which split up the whole mass of Archives in a Repository. [...] The Archive Group thus established is what the French call a Fonds. (83)

It would seem then, that one possible avenue to explore in the next chapter is whether any better sense can be made of archival description, if the vague concept of wholeness expressed, as von Bertalanffy stated, in terms of ''the whole is more than the sum of its parts' and the like' is replaced by 'a new scientific doctrine of ' wholeness'' expressed in terms of autopoiesis and the unity of distinction (An Outline of General System Theory 142, 134)?

A NEW WAY OF LOOKING AT THE WORLD

Before that possibility is explored however, it is worth noting that where this new way of thinking ultimately led Maturana and Varela (as well as other second order cyberneticians) is to 'an alternative non-representationist viewpoint' (Maturana and Varela, *The Tree of Knowledge* 253). This view point may be broadly termed constructivist, although there are many different shades apparent within that general term. The adoption of this constructivist epistemology resulted from their investigations into cognition. These investigations led them to the conclusion that knowledge was not based 'on acquiring or picking up the relevant features of a pre-given world that can naturally be decomposed into significant fragments' (*The Tree of Knowledge*

253). Rather 'knowing is effective action' and the only world is 'that we bring forth in our coexistence with others' (*The Tree of Knowledge* 26; 241).

Maturana and Varela point out that such a view 'might leave us a bit dizzy' because of the lack of a 'fixed point of reference to which we can anchor our descriptions in order to affirm and defend their validity' (*The Tree of Knowledge* 240). Certainly a dizzy feeling has already been encountered on a number of occasions and it would now appear that, if the ideas of autopoiesis and the unity of distinction are to help us make better sense of archival description, it may be necessary to get used to this feeling. It may be necessary to accept that the world 'will always have precisely that mixture of regularity and mutability, that combination of solidity and shifting sand, so typical of human experience when we look at it up close' (*The Tree of Knowledge* 241)? If so, it would seem that if better sense is to be made of archival description, it will need to be made from a slightly unsettling and uncomfortable position. Of this possibility, fair warning has now been given.

SUMMARY

This chapter marked the end of the account, started in chapter five, of the process of selective/theoretical coding undertaken in accordance with the grounded theory approach outlined in chapters two and three. It demonstrated how what lay at the heart or the core of the matter came to be seen in terms of how is it possible to have separateness without being separate, to be a whole without being a whole. This question was arrived at as a result of the ideas which had emerged in chapters five to seven and, in this chapter, through a consideration of the theme of self organization and of another question, that of how, if a system and its environment were necessarily in perpetual interaction, it was possible to draw a distinction between system and environment.

The answer to the question about separateness and wholes which lay at the core was seen as being the concept of autopoiesis, which was developed by Varela and Maturana. Autopoiesis or self production was seen to imply that an operationally closed or autonomous system is one which can become distinct from its environment (closed) through its own operations, but cannot be distinct from that environment and is, as such, also always open. It has the appearance of constancy, of having a steady state, of being a separate whole, but it is in fact inseparable from its environment, except through its own ongoing operation which produces the appearance of its constancy.

Further, it was seen that thinking with the concept of autopoiesis led Maturana and Varela to think also in terms of unities and distinctions, such that 'A unity (entity, object) is brought forth by an act of distinction' (Maturana and Varela, *The Tree of Knowledge* 40). It was hoped that thinking in these terms, rather than in the terms usually employed within archival theory, such as those of the organic whole and the whole being more than the sum of its parts, would allow a better sense to be made of archival description in the next chapter. It was noted, however, that thinking with the concept of autopoiesis also seemed to lead to a certain view of the world that was slightly dizzying and that it might therefore be necessary to adopt such a view if a better sense of archival description were to be made.

There are still then questions to be answered, but, with the culmination of this chapter, a point has been reached when the theory can be said to have been integrated and knotted together such that what lies at the core can be seen as both the problem and the solution – it makes sense in itself. How then can it now make sense of archival description?

CHAPTER NINE: AN OBSERVATION ON ARCHIVAL DESCRIPTION

The previous chapters, five to eight, described the process through which the core emerging from this investigation into archival description slowly took shape and resolved itself. The form of the core was seen to lie in the question of how it was possible to have separateness without being separate. A question for which an answer seemed to lie in the concept of autopoiesis, which suggested how it was possible; by becoming, rather than being, separate. A separate whole possessing such separateness could be seen as a unity of distinction, rather than being more than the sum of its parts.

It was also shown how conceptualizing autopoiesis had led Maturana and Varela to adopt 'an alternative non-representationist' view of the world (*The Tree of Knowledge* 253). It was suggested that a similar view might need to be taken in order to gain a better sense of archival description. That suggestion will be examined later, but the main focus of what follows is on integrating the core back into the subject under investigation, archival description, by offering an observation on it.

This observation is informed by all that has gone before, but it has been written so that it can stand alone. In presenting it in this way, it may appear that the new thinking being outlined has sprung from nowhere, or at the very least has been simply lifted from another field. The previous chapters however, show that this is not the case. Rather this thinking has emerged from within a detailed and lengthy investigation into the practice it is now being used to explain. It has earned its place in this thesis and its right to be called a grounded theory.
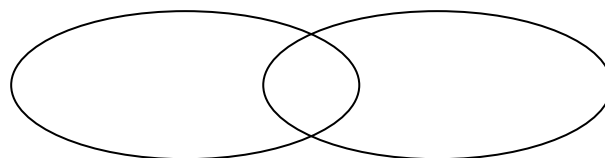
WHAT IS ARCHIVAL DESCRIPTION

At the end of chapter one, the question 'what is archival description' was raised. It is now time to answer that question, although the answer offered does not take the form of a conventional definition. And so, although it is perfectly possible to define archival description as;

> The creation of an accurate representation of a unit of description and its component parts, if any, by capturing, analyzing, organizing and recording information that serves to identify, manage, locate and explain archival materials and the context and records systems which produced it. (ICA Committee on Descriptive Standards, *ISAD(G)* 10)

Or even, as;

> Description applied in the archival environment. (Australian Society of Archivists Committee on Descriptive Standards 35)

The researcher does not feel that either definition comes close to providing an adequate explanation of what she thinks archival description is. Chris Hurley has written that 'Identity can be verified through definition or observation' (Ambient Functions 23). The researcher favours the latter. Consequently, she observes that one form she has frequently seen during her three year investigation into archival description is this;
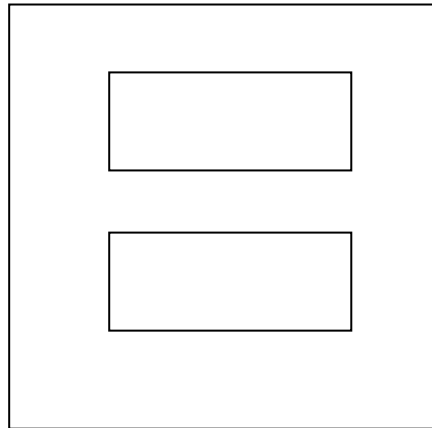

Figure 9.1 Archival description observed (1)

This form was first encountered at the end of chapter four, when the researcher used it to give a shape to the ideas which were emerging from her analysis of the data collected from a number of interviews. At that time, she chose to label the ovals 'control' and 'communication' and their overlap 'identification'. Then again, this form was also seen in chapter five, in the work of Jean Dryden, who had labelled her ovals 'authority control' and 'context control' and their overlap 'formation of names' (From Authority Control to Context Control 5). Finally, it was once more seen in chapter six, in the overlapping fields of experience contained in one of Wilbur Schramm's models of communication (How Communication Works 6).

Looking at this form it is possible to emphasise either, the three sections created by the overlapping of the two ovals, or, the two ovals. And so, the researcher was able to align the three sections in this form with others' observations that archival description had a threefold purpose; 'preservation of meaning, exercise of control, and provision of access' (Duranti, Origin and Development 52). Or, that a finding aid acted as; 'a *tool that meets the needs of the archival materials being described*', '*a collections management tool* for use by the archivists' and 'an *information discovery and retrieval tool* for making the evidence and information contained in archival collections available and comprehensible by archivists and users alike' (original emphasis)(Gilliland-Swetland, Popularizing the Finding Aid 202). She was also able to align the two ovals with the distinction, made in the *Manual of Archival Description* between the 'archival description sector' and the 'management information sector', or the 'public domain' and 'not in the public domain' (Cook and Procter 57).

The form of two overlapping ovals is not however, the only one to have been encountered. Another is the form of two boxes encompassed by another larger box, as reproduced overleaf;

Figure 9.2 Archival description observed (2)

With this form it is possible to emphasise either, the two separate internal boxes, or, the one single box which encompasses them. This form could be seen most clearly in figure 5.1 which showed an extract from *ISO23081-2* representing records management business integrated in (yet separate from) business (International Standards Organisation*, ISO23081-2* 7). Then again, echoes of the form were also encountered in chapter seven as part of the discussion of archival description as a non-trivial machine. Here it was shown that archival description could be seen, either as one single practice, or as two separate, but linked, processes. These two were most commonly labelled arrangement and description, but other possibilities were description and presentation, or, the one favoured by the researcher, archival description and sense making.

Both the forms discussed above also seem to embody the questions raised around being separate, yet not separate. The two ovals are both separate and linked; the two inner boxes are separate, but linked by the outer one. It depends how you look at it. One observation then that the researcher might offer on archival description is that it seems to involve a question of perspective.

A QUESTION OF PERSPECTIVE

A question of perspective has already been raised, towards the beginning of chapter seven, not in connection to archival description however, but rather, in connection to the difference between first and second order cybernetics. There it was noted that Margaret Mead and Gregory Bateson spoke of this difference in terms of the way in which, whereas 'the engineer is outside the box […] Wiener is inside the box' and clearly the view from inside the box is going to differ from that gained outside it (Brand 37). Then again, within that chapter, the researcher also provided a number of different perspectives;

- of figure 7.5 which showed archival description as a non-trivial machine
- of the difference between fonds and series based approaches to archival description as a manifestation of the replacement of 'the traditional difference between *whole and part* with that between *system and environment*' (Luhmann, Social Systems 6)
- of the combination of 'open', 'closed' and 'autonomous' in respect of the fonds as resonating with the combination of 'open', 'closed' and 'steady state' to be found in von Bertalanffy's discussion of general system theory (An Outline of General System Theory 134-165).

Throughout chapters seven and eight, it became clear that the researcher was increasingly adopting a cybernetic perspective and this perspective enabled her, in chapter eight, to offer the concept of autopoiesis, conceived by Maturana and Varela, as one possible solution to the question which had emerged from her research. Adopting this perspective then, what the archival discourse saw as the 'organic whole' was seen not in terms of the whole being greater than the sum of its parts, but in terms of the unity of distinction. And, with the idea of distinction was encountered an idea akin to that of perspective, that of observation, since it was noted that Maturana had described the operation of

distinction as 'The basic operation that an observer performs in the praxis of living' (Maturana, Ontology of Observing, 6.ii).

As has been hinted at previously, observation is a vitally important concept within cybernetics. Witness, for example, the way in which first and second order cybernetics were characterized, by von Foerster, as 'the cybernetics of observed systems' and 'the cybernetics of observing systems' (*Cybernetics of Cybernetics* 1, 285). Witness also, Heylighen's and Joslyn's mention of an emphasis on 'the role of the observer in modeling a system' (3). It is time to take a closer look at a cybernetic perspective of observation.

OBSERVATION

As was mentioned above, in cybernetic terms, observation is seen as akin to the operation of distinction, such that, as Seidl and Becker have written, 'every observation draws a distinction in the world [...] and indicates the side it wants to observe' (13).

The thinking behind the cybernetic perspective on observation is heavily influenced by the work of an English mathematician, George Spencer Brown. Spencer Brown was interested in mathematical logic and in a volume, *Laws of Form*, first published in 1969, he sought to 'separate what are known as algebras of logic from the subject of logic and to realign them with mathematics' (xi). In order to do so, he developed a calculus of indications, which started from the position that, 'We take as given the idea of distinction and the idea of indication, and that we cannot make an indication, without drawing a distinction' (Spencer Brown 1). In order to express his calculus, he developed his own notation, including the mark, which is shown overleaf.
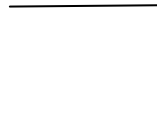
Figure 9.3: The mark of George Spencer Brown

Of this mark, Niklas Luhmann has written that it 'represents a distinction' and he also notes that it contains two components 'a vertical line that separates two sides, and a horizontal line that points to one side and not the other, and could thus be called an indicator or pointer' (System as Difference 41; 42).

Not being versed in mathematical logic, the researcher cannot offer a judgement on the calculus of indications as such. What is certain however, is that those who have developed and subsequently built from the concept of autopoiesis see it both, as a way of expressing their ideas (in a mathematical form), and an expression of the same ideas with which they are engaged. And so, for example, Varela, in his 1979 work, *Principles of Biological Autonomy*, spends some time outlining and then extending Spencer Brown's calculus (110-121; 127-137). And, as can be seen from the above quotation, Luhmann also refers to Spencer Brown's work and indeed calls it 'the most radical form of differential thinking' (System as Difference 37).

Of *Laws of Form*, Spencer Brown wrote that 'The theme of this book is that a universe comes into being when a space is severed or taken apart' and it is this theme which also pervades cybernetic concepts, such as the unity of distinction, discussed in the previous chapter (v). The theme of observation then is not such a major theme within the work, but it is discussed, for example, as in the following:

> In this conception a distinction drawn in any space is a mark distinguishing a space. Equally and conversely, any mark drawn in a space

draws a distinction. We see now that the first distinction, the mark, and the observer are not only interchangeable, but, in the form, identical. (76)

To begin to understand this slightly cryptic pronouncement, it is necessary to explore another 'cybernetic' idea, that of a distinction between first and second order observation. This distinction was invoked by Angelika Menne-Haritz in her work on business processes, where she writes as follows;

> An observer observing another observer, can see more than the first one. [...] So second order observation sees first order observation as a selection and can try to understand why the observed phenomenon where [sic] selected. (Business Processes 20).

And so, whereas both first and second order observation observe something, what second order observation observes is the making of a selection. Or, put another way, as Dirk Baecker describes it;

> A second order observation [...] looks at the 'form' of the distinction discovering its two sides (inside and outside) and its three values (first, the marked state; second, the unmarked state; and third, the distinction) (123)

This form, as represented by Baecker, is shown overleaf.
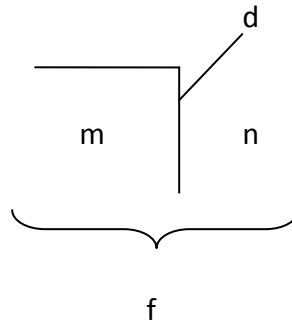
distinction *d*,

marked state *m*,

unmarked state *n*,

and form *f*

Figure 9.4: Second order observation (redrawn from Baecker 123)

It is now possible to see some sense in Spencer Brown's statement that the mark and the observer are identical. For, the mark of distinction, 'd' in the above diagram, can be seen as the making of a distinction, the making of an observation by an observer, made visible through second order observation. And so, second order observation sees the observer and that what it is observing is observing (observation), the drawing of a distinction. First order observation, on the other hand, sees what it is observing as observed.

The above discussion shows how the distinction between first and second order observation resonates with that between first and second order cybernetics, which, as was shown above, have been characterized as the cybernetics of 'observed systems' (first order) and 'of observing systems' (second order) (von Foerster, Cybernetics of Cybernetics 1, 285). This resonance can also be seen in the way in which second order observation, as the observation of observation, involves the same kind of self-reference as that discussed as a feature of second order cybernetic theory in chapter eight.

OBSERVATION AND ARCHIVAL DESCRIPTION

Clearly then, observation is an important concept within the field of cybernetics, but it also one way of characterizing archival description. As was shown in chapter six, a number of characterizations of archival description have been offered, including seeing it as a process of representation, as a process akin to that of textual criticism, and, the one the researcher has so far tended to emphasise, as a process of reasoning or making sense. One further characterization however, would seem to see an affinity with the process of observation. This characterization is offered by Chris Hurley, whose articles are frequently steeped in the language of observation. For example, in the 1995 article "Ambient Functions" he argues that 'description is a product of observation and observation varies as the circumstances of the observer change' (28). Then again, in a later article (2005) entitled "Parallel Provenance", he writes that 'Archival description must be based on observation, not normalisation' (19).

Hurley's work also frequently invokes the idea of perspective in terms of 'point of view' and 'frame of reference', e.g.;

> Satisfying a requirement for including an explicit stipulation of the observer's point of view in the representation of a unit of description is an aspect of what archival description has to be (Parallel Provenance 15)

> Since records are timebound and contextual metadata must be understood by an observer whose frame of reference is different from that of the record-keeper, there is a need for external validation. (Ambient Functions 21)

Hurley would seem then to call for the observer, or more specifically, the observer's frame of reference to be explicitly accounted for. Others would seem to share his view, and, in recent discussions relating to archival description, there

have been calls to provide such an account. For example, Jennifer Meehan suggests that one approach would involve;

> 'Citations or footnotes, employed throughout the narrative sections as well as the contents list of finding aids, [...] to explain the reasoning behind a particular arrangement decision' (Making the Leap 88-89)

The existence of discourse along these lines would seem to support the suggestion, made earlier in this chapter, that archival description involves a question of perspective. How then to deal with that question? This thesis would suggest that, rather than explaining reasoning in particular, it might be more effective to explain it in general, and that, rather than accounting for a point of view taken at a particular time by a particular individual, it might be more comprehensive to account for points of view, or frames of reference, themselves.

A POINT OF VIEW ON POINTS OF VIEW

Following a cybernetic inspired perspective then, one way of accounting for points of view would be as follows. Observation is an operation of distinction, which 'draws a distinction in the world [...] and indicates the side it wants to observe' (Seidl and Becker 13). The point of view from which an observation is made comes into being through the making of an observation, but this can only be seen by observation of the observation (observing) in the observation, or second order observation.

To be sure this way of accounting for points of view certainly brings on a recurrence of the dizziness, which Varela and Maturana assert 'results from not having a fixed point of reference to which we can anchor our descriptions in order to affirm and defend their validity' (*Tree of Knowledge* 240). The

researcher is still not entirely comfortable in this position, but she is beginning to think however, that the point of second order observation might be that there is a fixed point of reference in self reference.

By way of further illustration, let us return to Chris Hurley's attempts to account for the observer's point of view. For, in his attempts to do so he frequently discusses a concept he calls ambience. Hurley's concept of ambience is however a difficult one to grasp. For example, in his exposition of the series system, he sees it as one of 'two different kinds of context entities', these being;

> provenance (for persons and corporations who create, maintain, use, control, or dispose of records) and ambience (for entities such as organisations and families, which associate provenance entities with administrative structures, families, functional or juridical responsibilities) (The Australian 'Series' System 155)

Elsewhere though, it is explained in the following ways; 'Ambience is the context of provenance, just as provenance is the context of records' and 'Ambience is provenance once removed', or 'vicarious provenance' (Parallel Provenance 39; Ambient Functions 27). Both ambience and provenance then are context, but they differ, it would seem, in degree. Could it be then, that the concept Hurley is discussing here is not so much ambience as self reference. After all it would appear that ambience is the context of context, or the provenance of provenance.

Whether Hurley is or is not discussing self reference must remain uncertain, but what is certain is that the concept of self reference is intimately connected with the cybernetic conception of observation. For example, Luhmann seems to equate observing and self referential systems – describing second order cybernetics as a shift to a theory 'of observing or self-referential systems' (System as Difference 37). Then again, taking it further, he has argued that 'there

is no difference between self-reference and observation. For he who observes something must distinguish himself from that which he observes' (System as Difference 43). In this way acknowledging the act of distinction within the act of observing, engaging with the question of what it is to observe, to take a point of view, is another way of accounting for any particular point of view. And so, although accounting for points of view taken by individual archivists at certain points in time through the writing of footnotes is one approach, so too is for archivists to be explicit about their collective point of view on points of view, about how they view viewing. This idea will be considered further in the last chapter, where it will be argued that the practice of archival description has always entailed the taking of such a collective point of view, albeit without it being fully understood or comprehended.

A QUESTION OF BALANCE

The above sections have dealt with questions of perspective, but the following will deal with a question of balance. Earlier it was noted that, when looking at the two forms which had frequently been encountered during the course of this investigation, it was possible to emphasise different aspects of those forms. And this sense of the possibility of switching between different views has also been frequently encountered. For example, in the previous chapter, mention was made of how the principles of provenance and original order were sometimes seen as two separate principles and sometimes as two components of one single principle. Then again, the concepts of autopoiesis and the unity of distinction, suggested in response to questions of the separateness of organic wholes, also allow for the switching of views between seeing the unity brought forth by the distinction and seeing the distinction which creates the unity.

With regards to the principles of provenance and original order it was noted that seeing them as separate led to difficulties in balancing the two, difficulties which

could to some extent be glossed over by seeing them as two components of a single overarching principle. Similar difficulties in balance can be seen with regards to the purpose assigned to archival work. Jenkinson chose to define (separately) the archivist's primary duty - 'to take all possible precautions for the safeguarding of his Archives and for their custody' - and his secondary duty - 'to provide to the best of his ability for the needs of historians and other research workers' (15). He reinforced this distinction by laying down separate 'Rules for Archive Keeping' in connection to these primary and secondary duties. Clearly then, Jenkinson did not encounter a question of balance in respect of these purposes; that which was to take precedence if any conflict arose was explicitly indicated.

In more recent times however, archivists have started to place increasing weight on the importance of providing for 'historians and other research workers' (Jenkinson 15). Consequently, balance has become more of an issue. Jenkinson's two duties are therefore more commonly now referred to in terms, such as those employed by Schellenberg, as a 'dual objective', that being 'to preserve valuable records and make them available for use' (Modern Archives 224). Balancing the two components within this dual objective is not however made any easier by their combination in this way.

Another observation that might be made of archival description then, is that it involves a question of balance. It is a balancing act in which the one undertaking it must constantly try to attain a balance, e.g. to give due respect to both provenance and original order simultaneously, to balance the needs of preservation and access, to show the organic whole as distinct from its context and yet essentially connected to it. The last of these balancing acts has been the one, which has been considered most within this thesis and, looking at it, it would seem that the questions of balance and perspective are converging. For, the problem at the core, expressed in terms of how is it possible to have separateness, without being separate, could also be expressed in terms of how is

it possible to balance the view of the organic whole as distinct (separate from its context) with that of it as essentially connected to that context.

BALANCE IN PERSPECTIVE

Looking at the methods of archival description currently in use it could be said that fonds based archival description places more emphasis on viewing the organic whole as distinct than the series system, since the fonds is embodied in its application in a way in which the recordkeeping system is not by the series system. Then again though, the series system does embody other organic wholes, in the form of agencies and organizations, people and families. The essential connection of these organic wholes to their context is demonstrated by their linking to other wholes or entities, whereas the essential connection of the fonds organic whole is demonstrated within narrative text at fonds level. In both cases then it is possible to switch between a view of distinct entities and one of relationships, although arguably it is easier to do so with the series system and its explicit entity-relationship architecture.

Thinking in terms of entity-relationship architectures may help readers not just to notice the switch between two views, but also to understand those views. The two views implied in the above seem to the researcher to be akin to those outlined by Maturana and Varela as follows;

> On the one hand, we can consider a system in that domain where its components operate, in the domain of its internal states and its structural changes. Thus considered, the environment does not exist; it is irrelevant. On the other hand, we can consider a unity that also interacts with its environment and describes its history of interactions with it. From this perspective in which the observer can establish relations between certain

features of the environment and the behavior of the unity, the internal dynamics of that unity are irrelevant. (*Tree of Knowledge* 135)

The first of these views is sometimes described as the recursive view, from which point the observer focuses on the inside, the internal dynamics, and cannot see the boundary or the environment. The second is the behavioral view, from which the observer is focused on the outside and therefore sees only the boundary, not the internal dynamics.

Alternatively it is also possible to look at these different views in terms of viewing something as an object and viewing it as a construct. This distinction is suggested within the following quotation;

Even when they are captured in a medium that can be felt and touched, records as conceptual constructs do not coincide with records as physical objects (McKemmish, Are Records Ever Actual).

The inclusion of conceptual and physical within this quotation confuses matters a little as it seems to introduce a further distinction between conceptual and physical, which resonates with the distinction between intellectual and physical made in archival discussions of control and arrangement. Then again, the use of the word physical invokes another area of discourse, which sees a distinction between paper records, which have a physical form that can be picked up and handled and electronic records, which do not.

Nevertheless, the way in which the first part of the above sentence seems to imply that the second part is not dependent on whether or not records are captured in a medium [such as paper] that can be felt or touched, encourages the researcher to see the emphasis as lying on the distinction between records as constructs and records as objects. And so she sees that viewing records as constructs is akin to taking a recursive view, whereas viewing them as objects

involves taking a behavioral view. And also, as Maturana and Varela, would agree, that it is important to acknowledge that the two views do not coincide.

Maturana and Varela then, emphasis the important of maintaining a clear 'logical accounting' (*Tree of Knowledge* 135). They acknowledge that both views (recursive and behavioral) 'are necessary to complete our understanding of a unity', but warn against allowing the correspondence, which we establish between them, to disguise the fact that they are still different (*Tree of Knowledge* 135). For, not to acknowledge this difference would mean that we fail to observe the observing in our observation.

Another view of what this might mean comes in an article by Francisco Varela, entitled "Not One, Not Two". In this article, Varela urges 'contemplation of the ways in which pairs (poles, extremes, modes, sides) are related and yet remain distinct' and he proposes a type of statement, the 'Star statement' such that;

> 0.2 The metaphorical "trinity" can then be replaced with some statement which contains a built-in injunction (heuristic, recipe, guidance) that can tell us how to go from duality to trinity.
>
> *"trinity " = "the it/the process leading to it" (the Star * statement).*
>
> 0.2.1 The slash " / " in Star *, and hereinafter, is to be read as: "consider both sides of /", i.e: *"consider both the it and the process leading to it."*
> (Not One, Not Two 62)

The researcher interprets Varela's statements as indicating that in considering both the it and the process leading to it (the object and the construct), the difference between the behavioral and recursive views is maintained. Also that, as such, it is difficult to avoid also considering both the it and the process leading to it in respect of the view resulting from the process of viewing. Once again, by

acknowledging the difference, it is difficult to avoid noticing the observing in the observation.

In the next chapter it will be suggested that those practicing archival description in accordance with the idea of provenance have always followed the injunction to consider both the it and the process leading to it. Here, it is suggested that to do so is to maintain a form of logical accounting, maintaining a distinction between considering the it (the behavioral view) and the process leading to it (the recursive view). Perhaps then this is another factor that has led archivists to the position of becoming increasingly aware of the observing in their observations, the subjectivity of archival description, which was highlighted earlier as manifesting itself in the perception of a need to explicitly account for the points of view being taken.

The position taken by this thesis at that point was that a more general way of accounting for points of view was to be explicit about the point of view taken on points of view, about how viewing was viewed. It seems now that one answer to that question might be that practising archival description does involve a certain point of view on points of view, one that involves maintaining the difference between points of view such that the viewing in the viewing, the observation in the observation, is never entirely disguised. These ideas will be explored further in the following chapter.

ONE FINAL PERSPECTIVE

This chapter offered the observations that archival description involved both a question of perspective and a question of balance. These two questions converged as it was seen that, in the making of a distinction between two different perspectives, it became difficult to entirely lose sight of the observation in the observation.

This observation was developed in the context of noting the apparent concern, within the discourse relating to archival description, to account for the role of the archivist as an observer, for including 'an explicit stipulation of the observer's point of view' (Hurley, Ambient Functions 15). It was suggested that one way of accounting for the observer's point of view was by observing the observing in the observing.

This perspective was seen to lead back into and emerge from the ideas of cybernetics and of a theory 'of observing or self-referential systems' (Luhmann, System as Difference 37). It was also seen to resonate with the questions about separateness that had emerged during the coding process. As a result of this perspective the researcher now offers one final point of view, one final observation. To the question what is archival description, she replies that it is a point of view, a point of view about how we look at the world and form our point of view, about how we know what we know.

CHAPTER TEN – SOME FURTHER OBSERVATIONS

In the previous chapter, the researcher discussed questions of perspective and balance. It was suggested that archival description could be seen as maintaining an awareness of the difference between two different perspectives, the so called behavioral and recursive views, and that so doing ensured that those undertaking it could never entirely lose sight of the observing in their observing.

Further, it was noted that increasing attention was being paid to accounting in some way for this observation. A way of doing so was suggested that did not involve accounting for particular points of view, but for points of view in general. Such an account was provided through an exploration of the cybernetic perspective on observation and the distinction between first and second order observation. It was explained that cybernetic thinkers saw observation as an act of distinction and indication, and that a point of view could not be seen apart from the observation that created it. Ultimately then, this discussion led the researcher to the conclusion that archival description was a point of view.

In this chapter that conclusion will be explored in more detail and an attempt will be made to explain the point of view that archival description is now seen to be. Finally, having assumed this point of view as best she can for the present, the researcher will look around, and give an account of what she can now see.

A POINT OF VIEW

The conclusion that archival description was a point of view did not seem entirely alien to the researcher. As a practitioner of describing archives, she was comfortable with the idea that undertaking this practice involved taking a certain stance, a certain point of view. As is apparent from chapter one, she would, if pressed, have previously explained this point of view in terms of adherence to

the principles of provenance/original order. And so, looking from a different perspective, it could be said that the stance she was taking was one of passively following the rules, rather than one of actively knowing (or even seeking to know) what they meant.

Others have not been satisfied with taking such a passive stance and many of these individuals, such as Peter Scott and Chris Hurley, have been heavily referenced within this work. Scott and Hurley are mentioned here first, because of their specific interest in archival description, but there are many more, including Terry Cook, Frank Upward, Sue McKemmish, Terry Eastwood, Tom Nesmith, Eric Ketelaar, Heather MacNeil etc.[1] Through the collective work of these individuals it has increasingly been brought home, that the position taken when undertaking archival description is not just one of adhering to a set of principles, but also one of epistemology and ontology.

A narrative of paradigm shift has been constructed, wherein early practitioners of archival description, such as Jenkinson are seen as taking a positivist stance; 'mirroring the empirical Positivism common to the historiography with which he was deeply familiar and schooled' (T Cook, What is past is prologue 25). This stance, however, is now seen to have been 'discredited' and to be 'too [...] outdated for a late twentieth-century observer to adopt' (T Cook, What is past is prologue 25; 20). Instead, early twenty-first century practitioners/observers are more likely to assume (they are taking) a stance of 'postmodern historicism' or just postmodernism (T Cook, What is past is prologue 46).

And yet, despite this narrative, the stance taken by those undertaking archival description today remains the same as that taken by those undertaking it in Jenkinson's time. For, they still see themselves as governed by the same principles. Indeed, even those who do not undertake archival description in the

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[1] This list is not exhaustive and the researcher is sure that she has left out many who are equally deserving of mention in this regard.

same way as Jenkinson did (those who use the series system for example) would still claim, as Jenkinson did, to be abiding by the same underlying principles.

Seemingly then the stance taken, the point of view assumed when undertaking archival description has both changed and not changed. How can this be? Is it that it has not changed in practice, but has changed in theory? Not really, since it is practice which has changed – archivists of Jenkinson's time not having access to computers – and theory which has not changed – the principles are the same. The situation is a confusing one, so perhaps one way of approaching it would be to ask what else has changed? What have been the implications of the change expressed in terms of a shift from positivism to postmodernism?

The answer to this question would seem to be, at least, two fold. Firstly it would seem that;

> For archivists, the paradigm shift requires moving away from identifying themselves as passive guardians of an inherited legacy to celebrating their role in actively shaping collective (or social) memory. (T Cook, Archival science and postmodernism 4)

And secondly that;

> At the heart of the new paradigm is a shift away from viewing records as static physical objects, and towards understanding them as dynamic virtual concepts (T Cook, Archival science and postmodernism 4).

These implications will be considered in more detail in the following sections.

PARADIGM SHIFT

One change that is apparent over the past century is that the idea of the archivist as an impartial observer has become increasing problematic. As Duff and Harris put it; 'there are direct challenges to the notion that the archival intervention stands outside the construction of meanings and the exercise of power' (264). It is these challenges that have led archivists to feel a need to account for themselves, as witnessed in the work of, amongst others, Meehan and Hurley (Making the Leap; Ambient Functions). Or, that of Duff and Harris who make the point in the following way;

> As archival descriptions reflect the values of the archivists who create them, it is imperative that we document and make visible these biases. Users should have access to information about the world-views of the archivists who appraised, acquired, arranged, and described archival records. Archivists need to state upfront from where they are coming and what they are doing. They need to disclose their assumptions, their biases, and their interpretations. (277-278)

An alternative view of what such accounting might entail has been offered in the previous chapter and will be returned to later, but for now the point the researcher wishes to make is that, in the idea of a difference between standing outside and playing an active role in something (which informs the perceived need to account for that role) there is an echo of the question which was found to lie at the heart of this investigation – namely how is it possible to have separateness (stand outside) without being separate (still being involved in)?

Up until this point this question has only really been posed in regard to a subject of this investigation, something called the fonds, or the system, or the organic whole, but now it is possible to see that it can also be posed in regard to this investigation itself, indeed any form of research.

At the beginning of this project the researcher was told to read about research methods. Many of the volumes she read included discussion of differing research paradigms, including positivism, post positivism and interpretivisim. One way of looking at these paradigms is that they take a different perspective on the degree to which it is possible to separate the researcher from the world which they are researching. Thus, the researcher (just like the archivist) in the positivist paradigm can stand outside (separate from) their endeavour in a way in which the researcher (or archivist) in the interpretivist (or postmodern) paradigm cannot. For the latter group sees their involvement in (not being separate from) their endeavour, and sees it as problematic.

Importantly, as it now becomes clear, the researcher chose not to locate herself in any particular paradigm, but instead to use an approach that seemingly allowed her to have it both ways. And, she justified this approach, in part, by appeal to the way in which it had been suggested that 'liberation may well lie in the challenge of applying the apparent opposites of interpretive and positivist approaches to studying archival phenomena' (Gilliland and McKemmish 170).

Perhaps then, having it both ways is a point of view which has a particular affinity for those, like the researcher, who practise archival description? After all, as was shown above, those undertaking archival description are able to take the same point of view (the stance of abiding by the principles of provenance/original order) and be presented/present themselves as either positivists or postmodernists. Then again, the substance of this investigation into archival description would seem to suggest that the issue of negotiating separateness does lie right at the heart of the practice.

One way of negotiating separateness has been discussed previously in the form of the concept of autopoiesis, which was realised in the work of Humberto Maturana and Francisco Varela. This concept explained that something could become distinct (separate) from its environment through the closure of its own

operation, but could not be distinct from that environment, since it was dependent on that environment to ensure the continuity of its operation.

As was shown at the end of chapter eight, applying this concept more widely led Maturana and Varela to embrace a new way of looking at the world; 'an alternative non-representationist viewpoint' (*Tree of Knowledge* 253). Maturana and Varela also describe this point of view as taking 'the middle road, right on the razor's edge' (*Tree of Knowledge* 133). They continue;

> On one side there is a trap: the impossibility of understanding cognitive phenomena if we assume a world of objects that informs us because there is no mechanism that makes that "information" possible. On the other side, there is another trap: the chaos and arbitrariness of nonobjectivity, where everything seems possible.' (*Tree of Knowledge* 133)

Positivism pulls us into the first trap, postmodernism the second. Far from being an easy option, having it both ways is hard work. As the researcher has discovered through her taking of this stance (by adopting a grounded theory approach) it involves walking a tightrope between decision and indecision and retaining the ability to act whilst being in a constant state of uncertainty and doubt. She is now increasingly convinced that it is Maturana and Varela's 'middle road' that those undertaking archival description have long (at least since the adoption of the principles of provenance/original order) sought to take. The deficiencies, which Horsman found with 'archivists' theoretical competencies' have meant however that this has not been perceived clearly (The Last Dance of the Phoenix 5). Before exploring this position of taking the middle road in more detail however, the next section will conclude the current discussion of the implications of the perceived paradigm shift within the archival domain.

AN AWARENESS OF DIFFERENCE

As well as the way archivists view themselves, another thing that has changed over the years, is the way in which they view records. This has been commented upon by a number of others, including Terry Cook (quoted above) and, for example, Victoria Lemieux who writes that;

> The electronic age has moved the epistemological and ontological discussion surrounding the record away from viewing it as stable object towards seeing it as something mutable and unstable. (Letting the Ghosts Speak 97).

As can be seen in the above, this change is also associated with the shift from paper to electronic technologies, which has occurred at an increasingly rapid rate from the late twentieth century onwards.

In the previous chapter however, it was suggested that associated with this apparent change in how records were viewed was an increasing awareness that it was possible to view them in different ways, as, in Lemieux's terms, 'stable objects' or 'something mutable and unstable'. Or, in McKemmish's terms, as 'physical objects' or 'conceptual constructs' (McKemmish, Are Records Ever Actual). The arguments following on from that suggestion will not be repeated here, but they led ultimately to the idea that maintaining an awareness of the difference between such points of view meant that those undertaking archival description also maintained an awareness of the observing within their observations (observing). Perhaps then, another way of characterizing the taking of the middle road, discussed above, is that it involves maintaining an awareness of difference.

AN UNCOMFORTABLE POSITION

The final comments above lead us into an attempt to define the position, the point of view, which the researcher now sees as implied by the practice of archival description. The first thing to be said is that it is an epistemological point of view. Generally speaking there are few activities outside of research that demand those undertaking the activity to deal explicitly with their epistemological position in so doing. Moreover, even within research, it is unusual for this question to be dealt with throughout the entirety of the research project. As was discussed in chapter two the grounded theory approach may present itself as absenting from more academic epistemological and ontological debate, but only in as much as it does not demand that this debate be settled in advance of the undertaking of the research.

Grounded theory is grounded and archival description is too, by the way in which it does not divorce the practice of observation and of sense making, from the question of 'how to understand the regularity of the world we are experiencing at every moment, but without any point of reference independent of ourselves that would give certainty to our descriptions and cognitive assertions' (*The Tree of Knowledge* 241).

This latter is a fairly large question. It has troubled many of the world's great thinkers, amongst whom the researcher would most definitely not count herself. She cannot then provide a definitive answer to it, but she would suggest that one way of doing so is to adopt a position similar to that taken by Maturana and Varela and described at the end of chapter eight as a shade of constructivisim. This shade is seen by the researcher as akin to that David Connell describes as 'operative constructivism', that is of a point of view that 'focusses upon the operation of drawing a distinction as its epistemological foundation' (39-49).

Whilst acknowledging that this is a position she has adopted, the researcher still does not feel secure in it. She would not, for example, feel comfortable in asserting, as Maturana and Varela have done, that, 'we have only the world that we bring forth with others and only love helps us bring it forth' (*The Tree of Knowledge* 248). Nevertheless, she does feel comfortable in asserting that it is to this position that her investigation into the practice of archival description has led, that this is what she has found in her attempt to gain a deeper understanding of it.

This thesis began with the premise that;

> **At the beginning of the twenty first century, the practice, termed here archival description, is suffering from a lack of definition, which makes it difficult to practice.**

This premise however, the researcher would now rephrase as follows;

> **At the beginning of the twenty first century, those practicing archival description are beginning to acknowledge openly that they are dealing with a question of definition and that that question is a difficult one.**

This thesis proposes that the way in which those practicing archival description deal with this question is too often left implicit within that practice. In investigating the practice using the current approach, this way has been made explicit and has been seen as the taking a certain point of view, outlined above. This point of view maintains an awareness of difference, ensuring that the observation is never entirely lost in the observation and that in having it both ways, there is still some form of logical accounting.

VIEWS FROM THE RAZOR'S EDGE

The researcher is aware that the abstract nature of her conclusions will leave her open to the question, so what does this mean for practice? How should I change the way I am doing archival description in light of this research? Her answer is that it has never been her intention to change the way archival description is practiced, only how that practice is understood. What is different at the end of this thesis from its beginning is the way in which the researcher views archival description and to make this difference more explicit she will now return to some of the ideas first encountered in chapter four and consider them from her new position. She will also outline the new perspective this position offers on a number of commonly expressed ideas and views traditionally associated with archival description, as well as some possible avenues for future research.

One of the ideas first encountered in chapter four was expressed in terms of continuity and change. It was noted that some things, like human beings and organisations, seemed to need to change to continue. The researcher now sees this idea in the terms, suggested by von Bertalanffy, of 'steady states', a 'time-independent state of equilibrium' and 'constancy […] maintained in a continuous change' (An Outline of General System Theory 156-157). She also sees it in terms of the concept of autopoiesis and the idea that it is autopoiesis which 'makes living beings autonomous systems', or as the researcher would put it, organic wholes (Maturana and Varela, *The Tree of Knowledge* 48).

Then again, another idea encountered in chapter four was expressed in terms of containers and groups and singularity and plurality. This idea however, can now be expressed in terms of considering records as objects and considering them as constructs, between looking at the outside and seeing the boundary (the container, the singularity) and looking at the inside and seeing the internal dynamics (what makes the group a group, the plurality). This idea is then that of logical accounting discussed in chapter nine.

One further avenue of exploration would be to see if it is also possible to express the first of the above ideas in the terms of the question of identity (in the sense of sameness) which has lately been raised by Geoffrey Yeo in connection with the recent discussions of 'significant properties' in respect of digital objects (Nothing is the same, 85-116). For if, as Maturana and Varela assert, 'The being and doing of an autopoietic unity are inseparable', could not the identity behind the agency be the identity (sameness) of the agency (doing) with the agency (being) (*The Tree of Knowledge* 49)?

Then again, the researcher would also like to explore further whether the second of the above ideas could be (perhaps more clearly) expressed in the terms of the discourse about sense making. Sense making has been discussed on a number of occasions during this thesis and it is was clear from chapter seven that 'making sense' was one of the ways in which the researcher, in line with Jennifer Meehan', chose to characterize the process of archival description (Making the Leap 85). The researcher has also mentioned the work of Brenda Dervin in this area, but not yet that of Gary Klein. Gary Klein is seen as one of the architects of the so called data/frame theory of sensemaking in which it is suggested that 'the basic sensemaking act is data-frame symbiosis' (Klein, Moon and Hoffman, Making sense of sensemaking part two 88).

Data and frame are seen then as having a symbiotic relationship such that 'Frames shape and define the relevant data, and data mandate that frames change in nontrivial ways' (Klein, Moon and Hoffman, Making sense of sensemaking part two 88). The researcher thinks she begins to see in the distinction between frame and data, a parallel with that between the behavioral and recursive views of Maturana and Varela. The resonances have not been fully worked out, but they are sufficient to suggest to the researcher that it might prove enlightening to consider archival description in terms of theories of sense making. In particular, that thinking in such terms may lead to improvements in the presentation of archival description as a means to facilitiate sense making

rather than just to present 'information'. This feeling was strengthened by a recent paper entitled 'Making sense of the modern email archive: recordkeeping strategies and technological challenges', delivered by Jason Baron and Simon Attfield at the 5th International Conference on the History of Records and Archives in London in July 2010, which was informed by such a sense making perspective.

Finally, the last idea, which the researcher would like to explore further is that which she expressed, in chapter four, in terms of time and communication. As was discussed in chapter eight, autopoietic systems are seen, not to be distinct from the environment, but to become distinct. This 'becoming' would seem to imply the passage of time. The passage of time has always been of concern to the archival profession, but what difference does it make if time is seen as internal, rather than external, implicit within the becoming that allows for the appearance of being? The nature of time though is another large question, one which has not been tackled, since one thing the researcher does know about time is that she has run out of it.

Working out where her new perspective will take her next will then have to be for another time, but there are still a few words to be said in order to ensure that it is clear what is new about this perspective.

FURTHER VIEWS FROM THE RAZOR'S EDGE

The phrase 'order out of chaos' is often heard in discourse about archival description. For example, Jeannette Bastian, in an article entitled "Taking Custody, Giving Access: A Postcustodial Role for a New Century" refers to 'Muller's [one of the authors of the Dutch Manual] initial archival assignments which involved bringing order to a chaos of medieval records' (84). Then again,

Cynthia Durance explains the subtitle to her article "Authority Control: Beyond a Bowl of Alphabet Soup" as follows;

> When I chose the subtitle (long before I wrote the paper), I was reminded of my childhood, when for lunch we sometimes were served a well-known brand of soup which contains pasta shaped like the letters of the alphabet. We would always search the soup and carefully extract the letters of our names and arrange them on the plate. This urge to create order out of chaos and meaning out of the contents of disorder begins when one is young. Providing authority control is not unlike the process of creating order and meaning out of a bowl of alphabet soup. Authority control provides the means to create intellectual order out of the chaos of documents received in an archival repository. (38)

As a result of this work, the researcher has changed her interpretation of what bringing order out of chaos means. For, rather than seeing it as an order, an arrangement that is brought forth through the action of an outside agency (the archivist), she sees it now as an emergent order, one that can only come from within itself. Therefore to allow for the order it is necessary to also allow for the chaos. Chaos then is not the enemy it seems to be made out to be.

This then is one idea which differentiates the researcher's old perspective from her new one, and, given this change, she would like to suggest a different visual representation of fonds based archival description. As was discussed in chapter one, a model frequently associated with this way of describing is as shown overleaf.
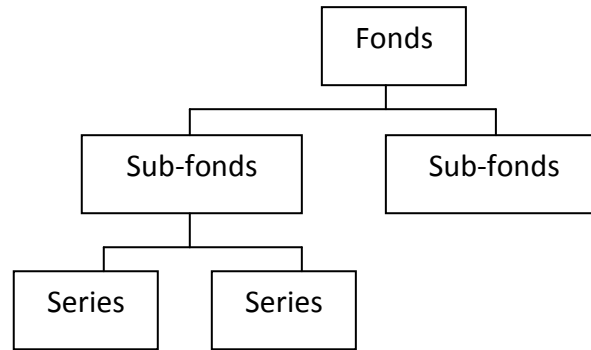
Figure 10.1: Hierarchical representation of fonds based archival description

The researcher would suggest that a better representation would follow that used by Baecker, in the context of writing about the form of the firm (The Form of the Firm, 128). This representation (overleaf) also employs the notation of George Spencer Brown in its use of the mark of distinction, which notation would act as a visual reminder to those undertaking archival description of the operation of distinction that defines their position.
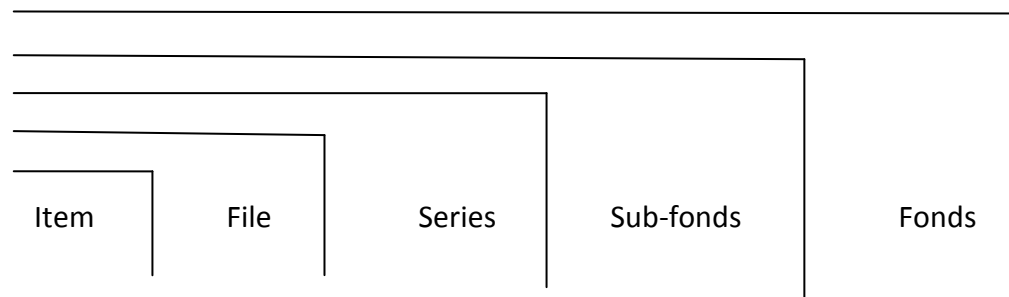
Figure 10.2: An alternative view of fonds based archival description

Such a view would be more in tune with an understanding of the fonds as a unity of distinction rather than the whole and its parts and also of order (embodied by the fonds) as emergent, arising from the recursive operation of distinction, rather than from a fixed hierarchy.

And finally, the researcher would not feel her thesis to be complete unless she had offered her own perspective on the principle of provenance. Asked now to state the rule by which those undertaking archival description must abide, she would not speak in terms of provenance or original order, rather she would borrow the words of Francisco Varela when he wrote of an injunction to *'consider both the it and the process leading to it'* (original emphasis)(Varela, Not One, Not Two 62).

In one way this does not seem new, after all archivists have long thought in terms of how archival description does not just describe the 'record', but also the process that led to its creation. Another way of seeing it however is as an injunction to always maintain an awareness of the difference between the view taken to see 'it' and the view taken to see the process leading to 'it', to maintain the logical accounting that means that observation is never entirely lost sight of in observation, and to maintain the point of view that gives this perspective.

THE END FOR NOW

Grounded theory stresses that theory is ever evolving rather than a once and for all product. More could always be said, more could always be done and some avenues for further inquiry have already been identified above. Nevertheless, the researcher does feel that she has succeeded in seeking out and articulating a deeper understanding of the practice of archival description. This understanding has come from identifying that it is not so much that archival description suffers from a lack of definition, but that it is the practice of dealing with one, of wrestling with questions of ontology and epistemology which have long troubled mankind.

The path this practice seems to take in order to deal with these issues is that of the middle road, of accepting that our world 'will always have precisely that

mixture of regularity and mutability, that combination of solidity and shifting sand, so typical of human experience when we look at it up close' (Maturana and Varela, *The Tree of Knowledge* 241). Taking this middle road should not however be seen as an easy option. On the contrary, it is very difficult. The question implicit in taking this middle road is not a problem those taking it are failing to tackle, but one they are refusing to conceal. It is the question of how it is possible to describe the world around us, 'to understand the regularity of the world we are experiencing at every moment, but without any point of reference independent of ourselves that would give certainty to our descriptions and cognitive assertions' (Maturana and Varela, *The Tree of Knowledge* 241).

This then is how the researcher now views the practice of archival description. It is hoped that others may also start to take a similar view and to consider further what taking such a view might lead.

AFTERWORD

At the beginning of this work, an objective was set to seek, articulate and communicate a deeper understanding of the practice known as archival description. The more observant reader will have noticed that, in the above conclusion, the researcher only claims to have succeeded in seeking out and articulating such an understanding. Does this mean then that she has failed to *communicate* that understanding? This question was also raised by the examiners of this thesis and this afterword has consequently been added to attempt to provide an answer to the charge. Typically, the researcher will answer that charge by taking the middle road. Has she failed to communicate her understanding? Yes and No.

Taking the 'no' first, it should be clear that the researcher's opinion of her success or otherwise in communication will depend very much on her understanding of what communication means. As chapter six explains, this understanding has expanded beyond the idea that communication is purely a matter of transmission. Rather, communication also carries the sense of 'the action of sharing in something' ("Communication" def 3b). By writing in the way that she has, a way that allows the reader to experience her understanding (the process by which she has made sense) of archival description, the researcher does not believe that she has failed to communicate that understanding.

However, as was also mentioned in chapter six, the sense of transmission within communication remains very strong and so, in the light of the above paragraph, the researcher's omission of communication in the final conclusion should be seen more as an expression of her rejection of this prevailing sense than anything else. For, if the question becomes one of has the researcher failed to get the message (what this thesis means for the practice of archival description) across, then the answer must be yes, since she does not see that message as something within her sole purview.

Nevertheless, in the final chapter, the researcher has attempted to get *her* message across, to outline what this thesis has meant for her, namely that it has fundamentally altered the way in which she now views the world around her (archival description included). She has also outlined a number of differences in her perspective on, for example, the maxim 'order out of chaos' and the injunction contained in the principle of provenance, by way of illustration.

This new perspective has not yet however, impacted on the way she does archival description, since she no longer engages directly in this practice. Rather she now teaches archival description and in that practice it has had an impact. For, instead of teaching archival description as the answer, she seeks to expose it as a question, forcing into the open each individual's own quest to find coherence and make sense with a multiplicity of methods, views and narratives.

It is the impression of such a quest that the researcher hopes the reader will take away from this thesis, for in gaining this sense they will have sensed what the researcher has sought to communicate, that is, share in and contribute to. That communication is ongoing and never ending. It is not something the researcher can achieve (succeed in), it is something she must do, through teaching, through the publication of articles, through her interactions with others, in numerous ways. This can only be the beginning.

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APPENDIX A – CODING SCHEMAS

List of free nodes resulting from open coding

Access	Display	Incoherent
Adding functionality	Distinguishing	Inference
Advising	Division	Informative
Appraisal	Drawing the line	Inheritance
Audit	Easy	Irritation
Authentic	Effort	Knowing
Authority	Electronic or paper	Lack of consequences
Bad practice	Evidence	Learning from
Change	Expectations	description
Classifying	Familiarity	Linking
Compromise	Filing	Location
Compulsion	Finding	Making connections
Confidence	Finished or draft	Manage
Consistency	Fit	Meaningless
Context	Flexible	Mentality
Control	Follow up	Mine
Creation	For information	Naming
Current	Formal or corporate	Navigating
Description	Function or map	Need
Description adding	Functionality	Negative
Description changing	Giving information	Not useful
Description creating	Granularity	Object
Desire	Grouping	Order
Detail of description	Guessing	Others
Detailed	Housekeeping	Personal archive
Difficult	Identification	Policy or precedent
Discovery	Important	Positive

Practical limitations	Sequence	Testing
Professional	Serendipity	Trust
Publishing	Setting permissions	Uncertainty
Quality of description	Sharing	Understanding
Record	Signposting	Usability
Reminding	Simple	Useful
Representation	Solving the puzzle	Views
Retrieval	Storage	Wholeness
Satisfied	Structure	Work or home
Saving	Sufficient	
Searchable	Temporary	

First (and last) attempt to create tree nodes

Abandoned nodes

Adding functionality

Bad practice

Classifying

Compromise

Confidence

Creation

Description adding

Desire

Display

Drawing the line

Filing

Finding

Follow up

Funtionality

Housekeeping

Informative

Inheriting

Lack of consequences

Learning from
description

Location

Navigating

Negative

Object

Policy or precedent

Positive

Professional

Record

Representing

Searchable

Serendipity

Shared grouping

Storing

Structure

Testing

Authenticity

Audit

Authentic

Evidence

Trust

Description

Description changing

Description creating

Flexible

Quality of description

Sufficient

Understandable

Useful

Using description

Finding

Access key

Available information

Consistency

Designing a search

Discovery

Display

Expectations

Familiarity

Faster processing

Finding search

Knowing where you are

Narrowing down results

Not finding

Others or own

Pathways - following

Pathways - making

Prior knowledge

Record locations

Shallow structure

Simple or complicated

What you are looking
for

Grouping

Dynamic

External consistency

Inheritance

Internal consistency

Managing knowledge

Managing objects

Placing in a group

Sequence

Identification

Context

Distinguishing

Identification

The bigger picture

Records

Corporate value

Evidential value

Finished or draft

Informational value

Reminding

Reuse value

Temporary

Storage

Different stores

Factors governing

choice of store

Role of description

Shared stores

Simultaneous storage

APPENDIX B – AMENDED RESEARCH PROPOSAL - APRIL 2008

Utility or Futility: Describing records

Introduction

In recent years our understanding of the description of records has entered a new and rapid period of evolution. The catalyst for this change is clearly rooted in the dawning of the digital age and the exciting possibilities that it brings for electronic records and recordkeeping.

The breakneck pace of this evolution has, however, taken its toll. We are now in the impossible situation of being simultaneously both more and less sure about what description is than ever before.

More sure, because the standardization efforts of the last twenty years mean we now have widely agreed rules for what the description of a record should contain and how that description should be broken down into individual data elements.

Less sure, because the postmodern re-examination of recordkeeping and records in general means we are no longer certain exactly what it is we are describing in the first place. Nor can description any longer be seen as a static and objective carrier of fact, external to the records it describes. Rather it is a subjective, ever changing creation that is itself implicated in the creation of the 'record', whatever that is.

This research seeks to bridge this paradox by considering the problem from a different angle, that of utility. Utility in this instance is defined as functionality, not usefulness. What does description do? How does this compare with what theory tells us it should do, or with what it has the potential to do? What are the barriers to utility? Is it all down to technological limitation? Is the description itself limiting? Is it possible to agree on what we want it to do?

Research context and contribution to original knowledge

In recent years a number of functional requirement documents have appeared, including MoReq2 Model Requirements for the Management of Electronic Records and IFLA's Functional Requirements for Bibliographic Records and Authority Data.

In addition considerable work has been carried out with regards to devising the functional requirements for recordkeeping metadata (description). For example the Pittsburgh Project devised Functional Requirements for Evidence in Recordkeeping (1996), the SPIRIT Recordkeeping Metadata Project resulted in the development of conceptual models for recordkeeping entities, the INTERPARES1 Project produced Benchmark and Baseline Requirements, Kate Cumming devised a Classification of Recordkeeping Metadata by Purpose Scheme and Joanne Evans and the MADRAS part of the Interpares2 research project have undertaken work with regards to the analysis and evaluation of metadata schema for recordkeeping purposes.

Most of this work has taken place very much in the abstract, although clearly it is all based to some degree on the practical expertise and experience of those involved. Some has also been specifically tested in real life situations (and subsequently amended). Nevertheless the prevailing ethos is still predominately top down. Whilst accepting the validity of this approach – ideally the tool should be designed to meet the specification and not the other way around – this research believes a bottom up approach will provide an interesting and original counterpoint.

Aims

This research aims to explore the utility of existing record description. It will seek to identify the factors affecting that utility and examine the attitudes and experiences of the creators and users of description with regards to its utility.

Objectives

- To undertake a detailed comparison between the potential and actual utility of two sets of existing description, one a EDRMS and one an archival catalogue.

- To examine the experience and attitudes of the creators and users of description with regards to the utility of that description

- To identify and define the factors which affect the actual utility of description

- To review findings in the context of existing functional requirements

Research design

This research falls within the interpretive tradition and more specifically a constructivist grounded theory approach (Charmaz). It will be based predominately on case study, initially at The National Archives, the collaborative partner in the research. As has been stated above, it is an essential aspect of this project that it seeks to take a bottom up approach and thus the grounded theory approach, which mirrors this approach, is the best fit.

Equally, given that the environment within which this research is taking place is one where the subjective nature of description is increasingly being recognised, it would be inappropriate to act within a tradition that rests on the idea of an objective truth, or one that fails to acknowledge that the researcher is an active participant and "attends to data as real in and of themselves and does not attend to the processes of their production" (Charmaz)

Indicative methodology

In line with the grounded theory approach, data collection and data analysis will take place concurrently and data will be coded using computer software. Data collection techniques will include; semi structured interviews, focus groups, observation and

diaries. The research will also involved the detailed analysis of data models behind and the actual data within the sampled systems.

Ethical considerations

As the information being collected will not be of a personal nature, it is not believed it should prove necessary to obtain Ethics Committee approval. However, data protection registration will be required and proper consent forms should be drawn up for participants.

APPENDIX C - ORIGINAL RESEARCH PROPOSAL - SEPTEMBER 2007

Multiple narratives, multiple views: exploring the shift from paper to digital archival description

Research context

The research will explore the consequences of the shift from paper to digital archival description for archival theory and professional methodology and for users. Access to archives is important both for scholarly research and for a range of societal and organisational purposes. Archives protect the rights of individuals, support the collective memory of society and underpin organisational accountability, as well as providing essential resources for historical, demographic, medical and sociological research. However, the use of archives depends on the availability of appropriate access routes and methods. Archival descriptions, in the form of structured descriptive metadata, are key to effective access to archives. Recently, UK archivists have radically improved the coherence of description through the development and application of descriptive standards (such as the *International Standard Archival Description (General)*, 2000 (ISAD(G)) and the UK *Manual of Archival Description*, 3rd ed., 2000 (MAD3)). Access to archival descriptions has been similarly transformed by the use of ICT, initially to create descriptions locally, but more recently to create and disseminate descriptions via collaborative projects, in particular within the UK Archives Network. Internationally, academic research in archival description focuses on specific aspects (eg Duff, information seeking by archival users, http://www.fis.utoronto.ca/content/view/644/364/; MacNeil, archival description and authenticity, http://www.slais.ubc.ca/RESEARCH/current-research/authenticity.htm, LEADERS, http://www.ucl.ac.uk/leaders-project/). There has, however, been little research to evaluate, in a wider theoretical and professional context, the approaches to description which projects adopt, nor to consider the consequences of the methodological developments, in particular the shift from paper-based to digital descriptions.

Aim

The aim of the project is to explore the consequences of the shift from paper to digital archival description for archival theory and professional methodology and for users. The project will explore these issues in the UK context but its findings will have applicability worldwide.

Objectives

- To understand the intellectual, technical, political, economic and social issues which provide the environment for the changes in archival descriptive practices and theories over the recent past in the UK

- To identify and characterise the main types of descriptive instruments used by collaborative descriptive projects (A2A, AIM25, Archives Hub, SCAN etc) and by individual archives and records services in the UK, and evaluate their strengths and weaknesses and appropriateness for a variety of records and users

- To assess the extent to which the purposes, methods and structures of archival description have been altered, if at all, by the use of technology to construct and present descriptions

- To evaluate the consequences of the technology shift for archivists and for users

- To identify and evaluate the issues faced by users and potential users of alternative presentations of digital descriptive instruments and of other tools and technologies to increase access to archives and description

- To investigate the potential of technologies, such as XML and the Semantic Web, for developing more meaningful ways of representing and presenting the richness of archival resources for differentiated user groups

Intellectual issues and problems

The main research questions, to be finalised with the doctoral student, are:

- What has been the effect of environmental factors on the practice and theory of archival description?

- How and why has the use of technology altered the construction and presentation of archival descriptions?

- How might technology be exploited to improve the representation of archives?

- What has been the role of standards and of collaborative descriptive projects in shaping the theory and practice of archival description in the UK?

- What are the theoretical consequences of these changes and how might professional practice be improved in future?

Methodology

The study will adopt a mixed methods approach, using mainly qualitative data, allowing triangulation of data from different sources to reveal a rich analysis of the field. The data collection methods will be refined in discussion with the doctoral student, but will probably be:

- A literature review to investigate environmental issues which have influenced changes in archival descriptive practices and theories; key theories and methodologies for description of archives and in sister disciplines, e.g. museum collections; current ICT developments; the impact of ICT on professional practice; the uses and potential of ICT to present and represent cultural resources; and user responses to, and modes of employment of, archival descriptions in analogue and digital environments.

- Textual and structural analysis of existing descriptive instruments, available within TNA in the National Register of Archives, Access2Archives (A2A) and TNA's own catalogues, to identify their attributes, characteristics and purposes.

- Study of descriptive standards and guidance (from published standards such as ISAD(G) and MAD3, A2A guidelines to in-house guidance) to identify and evaluate existing best practice advice.

- Semi-structured interviews with expert practitioners to uncover their methodologies and practices.

- Semi-structured interviews with users to gain views on the value to users of different levels and types of description and different methods of presentation.

Timeplan

It is anticipated that the project would be completed by one doctoral student within the following broad timetable, which will be reviewed with the doctoral student:

Year 1

Literature review of the theoretical and professional context of description, nationally and internationally, taking other domains into account (eg museums, libraries)
Research skills training and development, including investigation of various possible research methodologies, data collection and analysis approaches, including grounded theory, case studies, interviewing and observation
Review with the doctoral student, and refinement as necessary, of the proposed objectives and research questions
Induction into TNA and formulation of training package
Initial investigation of descriptive resources available
Formulation of research methodology and refinement of timetable

Year 2

Main data collection period, including interrogation of archival description data and

standards, and interviewing of archivists and users

Iterative analysis of research data and initial synthesis, to identify saturation point and gaps

Drafting of relevant chapters and preparation of oral presentation for MPhil/PhD upgrade

Year 3

Synthesis and analysis of research data; follow up research to check and refine key issues; develop conclusions

Complete writing up of thesis; dissemination

Dissemination and outcomes

The project will be of great interest in both the academic and professional domains. In addition to the presentation of a thesis, the research will provide a context within which practitioners can evaluate the effectiveness and appropriateness of their descriptive practices and provision of access: dissemination through professional media will thus be important (conferences, journals (e.g. *Journal of Society of Archivists*), seminars (TNA, professional bodies), discussion lists). It will also contribute significantly to international academic research in the area of description and access, so the student, supported if appropriate by the supervisors, will be encouraged to submit papers at academic forums, such as UCL, FARMER and AxisNET research seminars, and to peer reviewed journals, such as *Archival Science*.

APPENDIX D- INFORMATION SHEET AND CONSENT FORM VERSION ONE

Thank you for agreeing to take part in the above research, which I am undertaking as part of my doctoral study at University College London. I am funded by the Arts and Humanities Research Council under their Collaborative Doctoral Awards scheme. In this case the collaborative partner is The National Archives.

The overall aim of my research is to provide a clear articulation of the purpose, function and use of records description. I hope that this will both, allow the profession to communicate more easily the importance of description, and provide a more solid foundation from which to deal proactively with the ever changing environment in which we find ourselves.

Participation involves me speaking with you for about an hour about records description in its broadest sense. Subject to your agreement, I would like to record our meeting so that I can prepare a more accurate record of our conversation, but should you prefer, I will simply take notes. Either way, I will send you a copy of my notes following the meeting as a check.

The findings of this research will form part of my thesis and may be published in additional formats (journal articles, conference papers etc). You will not be identified by name in any of these publications. The raw data (recordings and/or notes) will be retained by me for the period of my research and will not be made available to third parties.

I hope that you will find the experience an enjoyable one. Please take part only if you want to. To comply with good research practice, please could you indicate your consent below and return this sheet to me. If there is anything that is not clear or if you would like more information, please contact me at [contact details removed].

I agree to take part in the above research. I have read the above information and understand what my participation involves.

I consent to the recording and processing of my personal information for the purposes of administering my participation in this research. I understand that such information will be treated as strictly confidential and handled in accordance with the provisions of the Data Protection Act 1998.

I understand that the findings of this research will be published, but that I will not be identified by name in any such publication.

Name:

Signed:

Date:

APPENDIX E – THREE VERSIONS OF THE INTERVIEW GUIDE

Version one – used for first interview only

Before you start, ensure the following are covered:

Recording

If consent given, sort out mechanics of recording.

Distractions

Try to minimise disruptions. Ask if possible to divert phone etc. May be difficult as in the work place. Have a plan for if something does interrupt.

Purpose of the research/interview

Thank them for participating. Explain the research as a whole, emphasis in particular the broad definition of description being used and the fact that it is something we all do and use every day, e.g. when naming files, when deciding which file to open, etc. Also that it is not really about any particular system, but about description in general.

Outline the potential practical benefit of the research – if we understand how we use description we can design it to better fit that use. Explain that nothing like this has been done before so not sure what we are going to find. There are no right or wrong answers, exhort their honest opinions. Ask them not to assume that I know anything just because I have worked at TNA.

Format/length of the interview

Explain that it is difficult to judge how long the interview will take – it might be finished earlier than scheduled or it might take the full two hours. Explain that the interview will be divided roughly into three different sections. Firstly a little bit of background, then description with regards to current records and finally description connected to archival records.

Questions

Ask if they have any questions.

Section One: Background

The aim of these questions is to discover:

- what the participant actually does (A.1, A.4)

- how the participant sees their job (A.2)

- what kind of background the participant has (A.3)

- how the participant conceptualises records (A.5)

- to what degree the participant uses archives (A.5)

A.1   What do you do here at TNA?

A.2   And if you had to sum it up in one sentence, at a party say?

A.3   Is this the type of work you have always done?

[If the participant does not give themselves a label as such]
So how would you describe yourself?
[If ask what I mean]
Well, I mean, I would describe myself as an archivist, or maybe a researcher,
what about you?

A.4   Could you describe a typical day?

A.5   So, what sort of records do you tend to use day to day?

[If ask for clarification]
I'm guess I'm trying to work out, what you find yourself working with most –
are you always dealing with email, or do you spend a lot of time creating
reports or presentations? Do you ever work with material from the archives?
That sort of thing
[If the participant has not said anything about archives]

Do you ever look at archival material brought up from the repositories?

[If fairly negative]

So, you've never looked at an original document?

Section Two: Description (Non-archival records)

The aim of these questions is to gain insight into:

- which systems participants choose for describing their own records [the act of saving the work as the act of setting it aside/describing it] (B.1)
- the reasons which influence participants in this choice (B.1)
- participants views with regards to the descriptions they create as part of a wider descriptive hierarchy (B.2, B.6, B.9)
- participants views with regards to description as more than just a mandatory step to allow them to save their work (B.3, B.4, B.5, B.6, B.7, B.11, B.12, B.13)
- the degree to which participants change description and position in the descriptive hierarchy as context changes (B.6)
- how participants search for current records (B.8)
- how participants use description for the purposes of identification/selection in the context of finding a particular record (B.8)
- how much information participants can provide about a record by utilising description only (B.9)
- the degree to which participants utilise this information on a daily basis (B.11)
- the degree to which participants see a use for this information (B.12)
- participants views with regards to description as a means to contextualise a record (B.10)
- what descriptive resources the participant uses and in what context (C.1, C.2, C.3, C.4)
- what factors most influence participants in their evaluation of descriptive resources/what they value in a descriptive resource (C.5, C.7, C.8)
- the tasks participants carry out using description (C.6, C.7, C.8)

- participants use of description in contexts other than finding archival resources (C.9)

B.1   Do you tend to save your own work within Objective, or outside it?

[Where multiple places mentioned] So what sort of percentages are we talking here? Why do you save things within or outside Objective?
[Where only one place mentioned] So you never save things anywhere else? Why's that?

B.2   And on a more micro level, whereabouts do you tend save your work? I mean does everything tend to go into one or two folders or is it all over the place?

[If not covered] What influences where you decide to save something?

B.3   When you are saving files, do you ever add more information than is mandatory to get the file to save?
[Possible follow ups] Why is that? Could you give me an example?

B.4   If you were saving a file that was confidential in some way, how would you ensure that only the right people had access to it?

B.5   If there was something which you thought it was important for anyone reading one of your documents to know as they read it, what would you do about that?

B.6   Do you ever tend to move your files around or rename them at a later stage?
[If affirmative, but not much detail given] Why do you tend to do that? Can you give me an example of when you've done that in the past?
[If negative] So if it isn't something you ever do, can you think of any reasons why someone else might want to do it?

B.7   Do you ever save email outside Outlook?
[Possible follow ups] Why or why not? Where do you put them? When you save them, do you rename them and why?

B.8   Have you ever lost a piece of work in the system?

[If affirmative] Could you tell me about it? Could you show me how you tried to find it? Why do you think you had all that difficulty?

[If negative] Let's imagine that you had, how would you go about finding it? Do you think that would work? And if it didn't?

NB Pay attention to steps taken – if they use search, or move down the file plan. Also query how they narrow down search results/identify right file, e.g. what if you couldn't remember what you had called it? Also what headings on home page.

B.9   Okay a little detective work now, here is one of my files in Objective. Let's imagine that for some reason you couldn't open it and I wasn't about to ask. Using all the means at your disposal, what could you tell me about this file?

[For Objective administrators] How much of that would someone with normal access privileges have been able to find out?

B.10   Which bits of that information would you say related to the file, and which to its context?

B.11   Have you ever used information like this in your day to day work? If so, could you give me an example?

B.12   Can you think of any situations where this sort of information might be useful?

B.13   What, in your view, is the purpose of describing records?

Use the following as prompts

To enable them to be saved

To establish control over records

To illuminate the context of records

To enable the retrieval of records

To preserve evidence of the activity of TNA

To ensure the authenticity of records

To control access to records

Section Three: Description (Archival records)

The aim of these questions is to gain insight into:

- what descriptive resources the participant uses and in what context (C.1, C.2, C.3, C.4)
- what factors most influence participants in their evaluation of descriptive resources/what they value in a descriptive resource (C.5, C.7, C.8)
- the tasks participants carry out using description (C.6, C.7, C.8)
- participants use of description in contexts other than finding archival resources (C.9)
- how much information participants can provide about a record by utilising description only (C.10)
- the degree to which participants utilise this information on a daily basis (C.12)
- the degree to which participants see a use for this information (C.13)
- participants views with regards to description as a means to contextualise a record (C.11)

C.1   I'm going to show you a list of various TNA and external systems which describe archives, I was wondering if you could tell me which ones you've looked at?

C.2   Can you think of any descriptive resources which you use, which are not on this list?

C.3   Do you tend to use these resources solely within work, or do you look at these things outside work?
        [If outside work] In what context do you look at these things outside work?

C.4   Of all those you've mentioned, which ones would you say you looked at most regularly?

        Why do you look at those in particular?

C.5   Which do you like using best and which least? And why?

C.6   Thinking back to the system you use the most, could you just run me through what you were doing the last time you used it?

Would you say that was typical of the way you use that system? How else do you tend to use that system?

C.7 Have you ever been using one of these systems and it hasn't worked and you've just got so cross you wanted to hit something? Could you tell me what you were trying to do and what went wrong?

C.8   On the flip side, could you tell me about a time when you've really enjoyed using one of these systems? What were you trying to do that time? Why were you so pleased with the interaction?

C.9   What percentage of the time, do you use these resources with the intention of viewing, or facilitating someone else in viewing any of the actual records described in the system?
Can you describe an instance when you have used the system and not ended up viewing a record or advising a reader as to which records they should look at?

C.10   Okay we're going to do some detective work again. I'm going to give you the reference number of something in the archives and, using all the means available to you, short of getting the document out, I'd like you to tell me all you can about the document to which that reference refers.
[For administrators] How much of that would someone with normal access privileges have been able to find out?

C.11   Which bits of that information would you say related to the record, and which to its context?

C.12   Have you ever used information like this in your day to day work? If so, could you give me an example?

C.13   Can you think of any situations where this sort of information might be useful?

C.14   What, in your view, is the purpose of archival description?

Use the following as prompts

To establish control over records

To illuminate the context of records

To enable the retrieval of records

To preserve evidence of the past

To ensure the authenticity of records

To control access to records

Wrap up

Thank you.

Focus group in September

Send transcripts/notes – could be a while

Version two – changed following first interview (changes underlined)

Before you start, ensure the following are covered:

Recording

If consent given, sort out mechanics of recording.

Distractions

Try to minimise disruptions. Ask if possible to divert phone etc. May be difficult as in the work place. Have a plan for if something does interrupt.

Purpose of the research/interview

Thank them for participating. Explain the research as a whole, emphasis in particular the broad definition of description being used and the fact that it is something we all do and use every day, e.g. when naming files, when deciding which file to open, etc. Also that it is not really about any particular system, but about description in general.

Outline the potential practical benefit of the research – if we understand how we use description we can design it to better fit that use. Explain that nothing like this has been done before so not sure what we are going to find. There are no right or wrong answers, exhort their honest opinions. Ask them not to assume that I know anything just because I have worked at TNA.

Format/length of the interview

Explain that it is difficult to judge how long the interview will take – it might be finished earlier than scheduled or it might take the full two hours. Explain that the interview will be divided roughly into three different sections. Firstly a little bit of background, then description with regards to current records and finally description connected to archival records.

Questions

Ask if they have any questions.

Section One: Background

The aim of these questions is to discover:

- what the participant actually does (A.1, A.4)
- how the participant sees their job (A.2)
- what kind of background the participant has (A.3)
- how the participant conceptualises records (A.5)
- to what degree the participant uses archives (A.5)

A.1   What do you do here at TNA?

A.2   And if you had to sum it up in one sentence, at a party say?

A.3   Is this the type of work you have always done?

[If the participant does not give themselves a label as such]
So how would you describe yourself?
[If ask what I mean]
Well, I mean, I would describe myself as an archivist, or maybe a researcher, what about you?

A.4   Could you describe a typical day?

A.5   So, what sort of records do you tend to use day to day?

[If ask for clarification]
I'm guess I'm trying to work out, what you find yourself working with most – are you always dealing with email, or do you spend a lot of time creating reports or presentations? Do you ever work with material from the archives? That sort of thing
[If the participant has not said anything about archives]
Do you ever look at archival material brought up from the repositories?
[If fairly negative]
So, you've never looked at an original document?

Section Two: Description (Non-archival records)

The aim of these questions is to gain insight into:

- which systems participants choose for describing their own records [the act of saving the work as the act of setting it aside/describing it] (B.1)
- the reasons which influence participants in this choice (B.1)
- participants views with regards to the descriptions they create as part of a wider descriptive hierarchy (B.2, B.6, B.9)
- participants views with regards to description as more than just a mandatory step to allow them to save their work (B.3, B.4, B.5, B.6, B.7, B.11, B.12, B.13)
- the degree to which participants change description and position in the descriptive hierarchy as context changes (B.6)
- how participants search for current records (B.8)
- how participants use description for the purposes of identification/selection in the context of finding a particular record(B.8)
- how much information participants can provide about a record by utilising description only (B.9)
- the degree to which participants utilise this information on a daily basis (B.11)
- the degree to which participants see a use for this information (B.12)
- participants views with regards to description as a means to contextualise a record (B.10)

B.1   Do you tend to save your own work within Objective, or outside it?

[Where multiple places mentioned] So what sort of percentages are we talking here? Why do you save things within or outside Objective?
[Where only one place mentioned] So you never save things anywhere else? Why's that?

B.2   And on a more micro level, whereabouts do you tend save your work? I mean does everything tend to go into one or two folders or is it all over the place?

[If not covered] What influences where you decide to save something?

B.3   When you are saving files, do you ever add more information than is mandatory to get the file to save?

[Possible follow ups] Why is that? Could you give me an example?

B.4   If you were saving a file that was confidential in some way, how would you ensure that only the right people had access to it?

B.5   If there was something which you thought it was important for anyone reading one of your documents to know as they read it, what would you do about that?

B.6   Do you ever tend to move your files around or rename them at a later stage?

[If affirmative, but not much detail given] Why do you tend to do that? Can you give me an example of when you've done that in the past?

[If negative] So if it isn't something you ever do, can you think of any reasons why someone else might want to do it?

B.7   Do you ever save email outside Outlook?

[Possible follow ups] Why or why not? Where do you put them? When you save them, do you rename them and why?

B.8   Have you ever lost a piece of work in the system?

[If affirmative] Could you tell me about it? Could you show me how you tried to find it? Why do you think you had all that difficulty?

[If negative] Let's imagine that you had, how would you go about finding it? Do you think that would work? And if it didn't?

NB Pay attention to steps taken – if they use search, or move down the file plan. Also query how they narrow down search results/identify right file, e.g. what if you couldn't remember what you had called it? Also what headings on home page.

B.9   Okay a little detective work now, here is one of my files in Objective. Let's imagine that for some reason you couldn't open it and I wasn't about to ask. Using all the means at your disposal, what could you tell me about this file?

[For Objective administrators] How much of that would someone with normal access privileges have been able to find out?

B.10   Which bits of that information would you say related to the file, and which to its context?

B.11   Have you ever used information like this in your day to day work? If so, could you give me an example?

B.12   Can you think of any situations where this sort of information might be useful?

B.13   What, in your view, is the purpose of describing records?
        Use the following as prompts
        To enable them to be saved
        To establish control over records
        To illuminate the context of records
        To enable the retrieval of records
        To preserve evidence of the activity of TNA
        To ensure the authenticity of records
        To control access to records

B.14   <u>Casting your mind back to the time before Objective, and, if you can, before computers, what are the differences you see between how you described records then and how you do now?</u>

Section Three: Description (Archival records)

The aim of these questions is to gain insight into:

- what descriptive resources the participant uses and in what context (C.1, C.2, C.3, C.4)

- what factors most influence participants in their evaluation of descriptive resources/what they value in a descriptive resource (C.5, C.7, C.8)

- the tasks participants carry out using description (C.6, C.7, C.8)

- participants use of description in contexts other than finding archival resources (C.9)
- how much information participants can provide about a record by utilising description only (C.10)
- the degree to which participants utilise this information on a daily basis (C.12)
- the degree to which participants see a use for this information (C.13)
- participants views with regards to description as a means to contextualise a record (C.11)

C.1   I'm going to show you a list of various TNA and external systems which describe archives, I was wondering if you could tell me which ones you've looked at?

C.2   Can you think of any descriptive resources which you use, which are not on this list?

C.3   Do you tend to use these resources solely within work, or do you look at these things outside work?

[If outside work] In what context do you look at these things outside work?

C.4   Of all those you've mentioned, which ones would you say you looked at most regularly?

Why do you look at those in particular?

C.5   Which do you like using best and which least? And why?

C.6   Thinking back to the system you use the most, could you just run me through what you were doing the last time you used it?

Would you say that was typical of the way you use that system? How else do you tend to use that system?

C.7   Have you ever been using one of these systems and it hasn't worked and you've just got so cross you wanted to hit something? Could you tell me what you were trying to do and what went wrong?

C.8   On the flip side, could you tell me about a time when you've really enjoyed using one of these systems? What were you trying to do that time? Why were you so pleased with the interaction?

C.9   What percentage of the time, do you use these resources with the intention of viewing, or facilitating someone else in viewing any of the actual records described in the system?
Can you describe an instance when you have used the system and not ended up viewing a record or advising a reader as to which records they should look at?

C.10   Okay we're going to do some detective work again. I'm going to give you the reference number of something in the archives and, using all the means available to you, short of getting the document out, I'd like you to tell me all you can about the document to which that reference refers.
[For administrators] How much of that would someone with normal access privileges have been able to find out?

C.11   Which bits of that information would you say related to the record, and which to its context?

C.12   Have you ever used information like this in your day to day work? If so, could you give me an example?

C.13   Can you think of any situations where this sort of information might be useful?

C.14   What, in your view, is the purpose of archival description?
Use the following as prompts
To establish control over records
To illuminate the context of records
To enable the retrieval of records
To preserve evidence of the past
To ensure the authenticity of records
To control access to records

C.15   What are the differences between paper and digital archival description?

Wrap up

Thank you.

Focus group in September

Send transcripts/notes – could be a while.

<u>Version Three – changed following seventh interview (changes underlined)</u>

Before you start, ensure the following are covered:

Recording

If consent given, sort out mechanics of recording.

Distractions

Try to minimise disruptions. Ask if possible to divert phone etc. May be difficult as in the work place. Have a plan for if something does interrupt.

Purpose of the research/interview

Thank them for participating. Explain the research as a whole, emphasis in particular the broad definition of description being used and the fact that it is something we all do and use every day, e.g. when naming files, when deciding which file to open, etc. Also that it is not really about any particular system, but about description in general.

Outline the potential practical benefit of the research – if we understand how we use description we can design it to better fit that use. Explain that nothing like this has been done before so not sure what we are going to find. There are no right or wrong answers, exhort their honest opinions. Ask them not to assume that I know anything just because I have worked at TNA.

Format/length of the interview

Explain that it is difficult to judge how long the interview will take – it might be finished earlier than scheduled or it might take the full two hours. Explain that the interview will be divided roughly into three different sections. Firstly a little bit of background, then description with regards to current records and finally description connected to archival records.

Questions

Ask if they have any questions.

Section One: Background

The aim of these questions is to discover:

- what the participant actually does (A.1, A.4)

- how the participant sees their job (A.2)

- what kind of background the participant has (A.3)

- how the participant conceptualises records (A.5)

- to what degree the participant uses archives (A.5)

A.1   What do you do here at TNA?

A.2   And if you had to sum it up in one sentence, at a party say?

A.3   Is this the type of work you have always done?

[If the participant does not give themselves a label as such]

So how would you describe yourself?

[If ask what I mean]

Well, I mean, I would describe myself as an archivist, or maybe a researcher,
what about you?

A.4   Could you describe a typical day?

A.5   So, what sort of records do you tend to use day to day?

[If ask for clarification]

I'm guess I'm trying to work out, what you find yourself working with most –
are you always dealing with email, or do you spend a lot of time creating
reports or presentations? Do you ever work with material from the archives?
That sort of thing

[If the participant has not said anything about archives]

Do you ever look at archival material brought up from the repositories?

[If fairly negative]

So, you've never looked at an original document?

Section Two: Description (Non-archival records)

The aim of these questions is to gain insight into:

- which systems participants choose for describing their own records [the act of saving the work as the act of setting it aside/describing it] (B.1)
- the reasons which influence participants in this choice (B.1)
- participants views with regards to the descriptions they create as part of a wider descriptive hierarchy (B.2, B.6, B.9)
- participants views with regards to description as more than just a mandatory step to allow them to save their work (B.3, B.4, B.5, B.6, B.7, B.11, B.12, B.13)
- the degree to which participants change description and position in the descriptive hierarchy as context changes (B.6)
- how participants search for current records (B.8)
- how participants use description for the purposes of identification/selection in the context of finding a particular record(B.8)
- how much information participants can provide about a record by utilising description only (B.9)
- the degree to which participants utilise this information on a daily basis (B.11)
- the degree to which participants see a use for this information (B.12)
- participants views with regards to description as a means to contextualise a record (B.10)

B.1   Do you tend to save your own work within Objective, or outside it?

[Where multiple places mentioned] So what sort of percentages are we talking here? Why do you save things within or outside Objective?
[Where only one place mentioned] So you never save things anywhere else? Why's that?

B.2   And on a more micro level, whereabouts do you tend save your work? I mean does everything tend to go into one or two folders or is it all over the place?

[If not covered] What influences where you decide to save something?

B.3   When you are saving files, do you ever add more information than is mandatory to get the file to save?

[Possible follow ups] Why is that? Could you give me an example?

B.4   If you were saving a file that was confidential in some way, how would you ensure that only the right people had access to it?

B.5   If there was something which you thought it was important for anyone reading one of your documents to know as they read it, what would you do about that?

B.6   Do you ever tend to move your files around or rename them at a later stage?

[If affirmative, but not much detail given] Why do you tend to do that? Can you give me an example of when you've done that in the past?

[If negative] So if it isn't something you ever do, can you think of any reasons why someone else might want to do it?

B.7   Do you ever save email outside Outlook?

[Possible follow ups] Why or why not? Where do you put them? When you save them, do you rename them and why?

B.8   Have you ever lost a piece of work in the system?

[If affirmative] Could you tell me about it? Could you show me how you tried to find it? Why do you think you had all that difficulty?

[If negative] Let's imagine that you had, how would you go about finding it? Do you think that would work? And if it didn't?

NB Pay attention to steps taken – if they use search, or move down the file plan. Also query how they narrow down search results/identify right file, e.g. what if you couldn't remember what you had called it? Also what headings on home page.

B.9   Okay a little detective work now, here is one of my files in Objective. Let's imagine that for some reason you couldn't open it and I wasn't about to ask. Using all the means at your disposal, what could you tell me about this file?

[For Objective administrators] How much of that would someone with normal access privileges have been able to find out?

B.10 Which bits of that information would you say related to the file, and which to its context?

B.11 Have you ever used information like this in your day to day work? If so, could you give me an example?

B.12 Can you think of any situations where this sort of information might be useful?

B.13 What, in your view, is the purpose of describing records?
Use the following as prompts – what is the role of description in ....
Enabling records to be saved
Establishing control over records
Illuminating the context of records
Enabling the retrieval of records
Preserving evidence of the activity of TNA
Ensuring the authenticity of records
Controlling access to records

B.14 Casting your mind back to the time before computer/the time before Objective, what do you think are the main differences with regards to describing records?

Section Three: Description (Archival records)

The aim of these questions is to gain insight into:

- what descriptive resources the participant uses and in what context (C.1, C.2, C.3, C.4)

- what factors most influence participants in their evaluation of descriptive resources/what they value in a descriptive resource (C.5, C.7, C.8)

- the tasks participants carry out using description (C.6, C.7, C.8)

- participants use of description in contexts other than finding archival resources (C.9)
- how much information participants can provide about a record by utilising description only (C.10)
- the degree to which participants utilise this information on a daily basis (C.12)
- the degree to which participants see a use for this information (C.13)
- participants views with regards to description as a means to contextualise a record (C.11)

C.1   I'm going to show you a list of various TNA and external systems which describe archives, I was wondering if you could tell me which ones you've looked at?

C.2   Can you think of any descriptive resources which you use, which are not on this list?

C.3   Do you tend to use these resources solely within work, or do you look at these things outside work?

     [If outside work] In what context do you look at these things outside work?

C.4   Of all those you've mentioned, which ones would you say you looked at most regularly?

     Why do you look at those in particular?

C.5   Which do you like using best and which least? And why?

C.6   Thinking back to the system you use the most, could you just run me through what you were doing the last time you used it?

     Would you say that was typical of the way you use that system? How else do you tend to use that system?

C.7   Have you ever been using one of these systems and it hasn't worked and you've just got so cross you wanted to hit something? Could you tell me what you were trying to do and what went wrong?

C.8   On the flip side, could you tell me about a time when you've really enjoyed using one of these systems? What were you trying to do that time? Why were you so pleased with the interaction?

C.9   What percentage of the time, do you use these resources with the intention of viewing, or facilitating someone else in viewing any of the actual records described in the system?

Can you describe an instance when you have used the system and not ended up viewing a record or advising a reader as to which records they should look at?

C.10   Okay we're going to do some detective work again. I'm going to give you the reference number of something in the archives and, using all the means available to you, short of getting the document out, I'd like you to tell me all you can about the document to which that reference refers.

[For administrators] How much of that would someone with normal access privileges have been able to find out?

C.11   Which bits of that information would you say related to the record, and which to its context?

C.12   Have you ever used information like this in your day to day work? If so, could you give me an example?

C.13   Can you think of any situations where this sort of information might be useful?

C.14   What, in your view, is the purpose of archival description?

Use the following as prompts – <u>what is the role of archival description in…</u>

Establishing control over records

Illuminating the context of records

Enabling the retrieval of records

Preserving evidence of the past

Ensuring the authenticity of records

Controlling access to records

C.15   What are the main differences between paper and digital archival description?

Wrap up

Thank you.

Focus group in September

Send transcripts/notes – could be a while.

Containers versus groupings

- Containers have an existence separate from contents
- Have to be put into a container
- Sometimes groupings and containers can overlap
- Containers in the literature – packages, buckets, etc.

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Locating

- Persistent language of place
- Putting an object down
- Finding an object
- Locating, placing that object in context so that you understand it

Arts & Humanities
Research Council

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APPENDIX G –INFORMATION SHEET AND CONSENT FORM VERSION TWO

Multiple narratives, multiple views: Exploring the shift from paper to digital archival description

Thank you for agreeing to take part in the above research, which I am undertaking as part of my doctoral study at University College London. Further details about the project are attached for your information. Participation will involve me speaking with you for about an hour on the subject of archival description in its broadest sense. Subject to your agreement, I would like to record our meeting so that I can prepare a more accurate record of our conversation, but should you prefer, I will simply take notes. Either way, I will send you a copy of my notes following the meeting as a check.

The results of this research will be published in the form of my thesis and, should you wish to receive one, I will send you an electronic copy once it has been completed. The research may also be published in additional formats (journal articles, conference papers etc). You will not be identified by name in any of these publications. The raw data (recordings and/or notes) will be retained by me for the period of my research and will not be made available to third parties.

I hope that you will find the experience an enjoyable one. To comply with good research practice, please could you indicate your consent below and return this sheet to me. If there is anything that is not clear or if you would like more information, please contact me at [details removed].

I agree to take part in the above research. I have read the above information and understand what my participation involves.

I consent to the recording and processing of my personal information for the purposes of administering my participation in this research. I understand that such information

will be treated as strictly confidential and handled in accordance with the provisions of the Data Protection Act 1998.

I understand that this research will be published, but that I will not be identified by name in any such publication.

Name:

Signed: Date:

Additional information attached as follows:

Background information

This project is funded by the Arts and Humanities Research Council under their Collaborative Doctoral Awards Scheme. The collaborative partner is The National Archives. The project started in September 2007 and is due for completion in September 2010.

Research context

The recent past has seen the dismantling of many traditional certainties about the nature of the archival endeavour. The profession may no longer characterise itself as passively guarding an objective truth, but must instead wrestle with the idea that it is actively participating in the construction of some ever shifting concept of memory. Thus a record becomes 'an evolving mediation of understanding about some phenomena – a mediation created by social and technical processes of inscription, transmission, and contextualization' (Nesmith 145).

Equally the profession must also face the consequences of the digital era and the fundamental changes it has brought to the way we create, store and use records. Prior

to the digital revolution records had a clear physical presence and with it a comforting permanence, but that is no longer the case. Thus a record is changing 'from being a physical object to becoming a conceptual data "object," controlled by metadata' (Cook 22).

Archival description may well offer the solution to these challenges. It is part of the process through which Nesmith's 'mediation'/record is created. It provides the metadata which controls Cook's 'conceptual data "object"'. And yet, archival description remains largely defined by traditional models, dating back to the nineteenth century and there is little conception of any theory of archival description. Considerable effort has been put into the standardisation of archival description and yet 'The purpose and basis of description remains unclear' (Hurley 6).

Research carried out in the area to date has been limited to user studies, testing the usability of online systems and seeking better understanding of the information seeking behaviour of different kinds of users. Such studies do not deal with the more conceptual aspects of archival description and this situation must be rectified if we are to understand it and make it work for us effectively in the future.

Aims and objectives

The aim of this project is to develop theoretical understanding of archival description. It is hoped that this understanding will inform efforts to both improve practice and advance theory in the wider field of archival science. This project has therefore the following objectives;

- The development of a grounded theory (Glaser and Strauss) identifying the main concerns of those interacting with archival description and the way in which those concerns are resolved.
- Dissemination of the results of the research and knowledge transfer to strengthen ties between practitioners and academics.

Method

I have chosen to advance theoretical understanding through the development of a grounded theory because of its firm connection between data and conceptualisation. This is I feel, particularly appropriate for a practice based discipline such as archival science. Also appropriate is the method's emphasis on the resulting theory being relevant and workable. One of my objectives is to strengthen ties between practitioners and academics and I will therefore need to overcome the mistrust some practitioners feel in regards to theory. By producing a grounded theory which will fit with their experiences, I hope to demonstrate that theory can be of practical use.

Works Cited

Cook, Terry. "Archival science and postmodernism: new formulations for old concepts." *Archival Science* 1 (2001): 3-24. Web. 2 May 2008.

Glaser, Barney and Anselm Strauss. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine De Gruyter, 1967. Print.

Hurley, Chris. "Parallel Provenance (If these are your records, where are your stories?)." *Records Continuum Research Group*. Monash University, [2005]. Web. 31 Mar 2008.

Nesmith, Tom. "Still Fuzzy, but more accurate: Some thoughts on the 'ghosts' of archival theory." *Archivaria* 47 (1999): 136-50. Web. 28 January 2008

APPENDIX H – LIST OF INTERVIEWS UNDERTAKEN

Participant	Organisation	Interviewed
A	TNA, Archives and Records Knowledge	30th June 2008
B	TNA, Archives and Records Knowledge	20th June 2008
C	TNA, Archives and Records Knowledge	Not interviewed
D	TNA, Archives and Records Knowledge	3rd June 2008
E	TNA, Archives and Records Knowledge	6th June 2008
F	TNA, Archives and Records Knowledge	6th June 2008
G	TNA, Strategic Development	16th June 2008
H	TNA, National Advisory Services	16th June 2008
I	TNA, Document Services	18th June 2008
J	TNA, Online Services and Education	18th June 2008
K	TNA, Records Management and Cataloguing	20th June 2008
L	TNA, Records Management and Cataloguing	23rd Sept 2088
M	TNA, Records Management and Cataloguing	23rd June 2008
N	TNA, Records Management and Cataloguing	23rd June 2008
O	TNA, Records Management and Cataloguing	25th June 2008
P	TNA, Marketing and Communications	25th June 2008
Q	TNA, Collection Care	27th June 2008
R	TNA, Digital Preservation	27th June 2008
S	TNA, IT Strategy	30th June 2008
T	BBC Archives	14th May 2009
U	BBC Archives	14th May 2009
V	Humanities Advanced Technology and Information Institute, University of Glasgow	21st May 2009
W	Student, University College London	8th June 2009
X	Student, University College London	8th June 2009
Y	Centre for e-Research, King's College London	17th June 2009
Z	Centre for e-Research, King's College London	17th June 2009
AA	Centre for e-Research, King's College London	17th June 2009
BB	Hampshire Record Office	21st Sept 2009
CC	British Library	6th Oct 2009
DD	Student, King's College London	19th Oct 2009

APPENDIX I: EXAMPLE MEMO ON CONTAINERS

I am intrigued by the idea of containers as opposed to groups (sets maybe a better word) and think it may shed some light. It is certainly an area that seems to keep coming up in the literature. Harris and Duff talk about physical containers and intellectual containers and there is (or was) a recordkeeping containers axis in the records continuum model. We have the idea of SIPs and DIPs and wrappers and layers and buckets. There is also the idea of the record group, of search as being a black box, etc.

Both containers and groups keep things together (both mentally and/or physically). However whereas a container's existence is not dependent on the things it contains, a group's existence is dependent on the things in that group (it exists by virtue of the fact that a number of things have something in common). The boundaries of a container are hard - you cannot be in that container unless you are put there - but those of a group are not - you could be a member of that group even if you are not recognised as such.

Sometimes groups and containers can overlap - you could put all the red lego bricks in a box - but the contents of a container need not be a group (if the only thing things share in common is that they have all been put into the same container this is not a true group in my opinion).

A container allows you to store and transport stuff more easily, a group does not. I think that possibly when we speak of physical as opposed to intellectual order we are in fact discussing containers versus groups. For example, a paper file is a group - it consists of all the stuff concerning a particular transaction. However it can also be a container - a mechanism for allowing the easier storage, transport, retrieval, processing of stuff. The separation between these two becomes more obvious if you then consider file parts. The file container cannot hold the entire group and still fulfill its function of allowing easier transport etc so the group is then split between more than one container.

An electronic file is more of a container than a group - it contains a bunch of bits of information that have all been put into the same container (the email, the file, the report, the letter etc). Electronic folders are groups. Interestingly enough one of my participants mentioned file parts in relations to electronic material and said "I'm sure it's supposed to be dealt with with file parts which are a very nice archival thing but doesn't seem to help the users much [mm] is I find my areas get clogged up with old stuff that I've done and dealt with [uh hmm] so sometimes I found myself creating a, a kind of an old stuff folder and just putting it in because it, I want to get it out of the area that I'm currently in". Thus electronic folders (like paper files) are also also acting as containers - there may be no physical limits on what you can fit into that container, but there are people friendly limits. At some point the container becomes too big for it to fulfill its function of facilitating the easier processing of the stuff in it and so the group needs to be split between containers. People can process a lot less than computers so the containers needed by people are going to be smaller than those needed by machines.

Considering the series - a paper series would have to qualify I think as more of a group. All the definitions of series seem to rest on some idea of something being the same. Equally a fonds must be in theory a group - a group of stuff with the same creator. Multi-level description however turns them into containers. The fonds is the container for the sub-fonds, the subfonds is a container for the series etc. This is where we get ourselves into a muddle. Clearly this relates to what Chris Hurley has been saying for years about inheritance. I think we need to throw out the hierarchical model in favour of one more in the line with a Venn diagram. This is the set of records that relate to this function or this creator, or this subject and they all overlap. To be sure some of these sets may turn out to be subsets of other sets but it is not a given. It is not a matter of structuring the stuff in your buckets but of facilitating the presentation of sets of stuff from your buckets.

I think this idea may also allow me to cope with the constant duality I keep hitting in respect of records (object/field, artefact/process etc). How do archivists deal on a day to day basis with something that is not an object but a view? How do you ensure the

authenticity of a view? If you imagine a record as a container it becomes easier because it is possible to conceptualise a container simultaneously as either container and contents or container containing contents.

Archivists concern themselves day to day with containers. In terms of authenticity they cannot speak for the contents, but they can maintain the integrity of the relationship between the container and its contents (ensuring that the contents are preserved as they were originally put into that container). They also provide information that will allow a judgement to be made on the reliablity of those contents by telling you who created the container and why. The authority of a record lies in its container not its content. A date of birth might be recorded in many different containers, but the birth certificate is the most authoritative.

The sets that concern archivists - the contextual sets are sets of containers. The sets produced by search are sets of contents. This is the mismatch. Both types of sets though are fluid for as long as new containers are being added. When archivists speak of context they speak of the context of the container - not of its contents, the context of the contents is the view and is beyond the remit of the archivist.

Catalogues are also containers, the ISAD(G)/EAD structure is also a container. We need to preserve the integrity of the relationship between the container and its contents here to - especially as the contents are changing.

Containers are connected to place/location, sets are not. Multi-level description/file directory systems/containers within containers are a good way of finding things - go to this box and get out this box and then this box.

07/11/2008 13:32