

**ARCHAEOLOGICAL POST-EXCAVATION
PRACTICE IN CONTRACTING
ARCHAEOLOGY IN ENGLAND AND WALES**

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ABSTRACT

In Britain over the last fifty years there has been an almost exponential increase in the number of archaeological excavations undertaken in advance of both commercial development projects and state funded infrastructure projects. These archaeological excavations have been undertaken by small teams of professional field archaeologists who have recorded and documented the archaeological deposits before they were destroyed by construction work, and over time this has produced a vast amount of new archaeological information. However, the very circumstances that have made these archaeological excavations possible have also contributed to making the resulting archaeological documentation both difficult to use and difficult to access. These difficulties have meant that this commercially generated archaeological information remains a massively under-utilised historical resource which has the potential to radically change our understanding of the past.

If these archaeological reports and archaeological publications are ever to be used effectively for academic research, then it is first necessary to take a detailed and realistic view of how they have been produced.

This MPhil research therefore uses qualitative research methodology (a modified form of Grounded Theory) to undertaking a series of semi-structured interviews with a number of professional archaeologists who have worked on post-excavation projects for different archaeological units or archaeological organisations at different times over this period. It then places this primary information within the chronological structure created by the introduction of new planning laws and policy documents, and uses it to establish:

- The general circumstances surrounding archaeological projects, and the time and money limits within which the archaeologists had to work (*context*).
- The structure of the post-excavation process, and the actual methodology and the interpretative techniques that were used to produce the archaeological reports and archaeological publications (*process*).
- The effect that changing circumstances and attitudes had upon the post-excavation process over time (*change*).

From this analysis it then constructs a basic ‘causal history’ which both describes and explains the development of archaeological post-excavation within professional archaeology in Britain over the last fifty years. This is intended to act as a detailed ‘user’s guide’ to archaeological reports and archaeological publications for future generations of researchers and historians.

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ACCOMPANYING MATERIAL

All interviews were anonymous and are stored as MP3 recordings and transcripts within the research archive, which is available on the CD ROM contained within the folder attached to the back cover of this volume.

The Fuller's Hill Area/Date Table is also available as an A0 printout contained within the folder attached to the back cover of this volume.

NOTE

Capital letters have been used throughout the text to identify specific types of archaeological documentation, specific archaeological reports and publications, and specific job titles.

All interviews have been referenced within the text by using the interview number and either a page number for the transcripts, for example (Participant Interview 05: 55 - 61), or a timing number in minutes and seconds for the recordings, for example (Participant Interview 14: 16.00).

As part of the *reflexive* research process I also recorded my own views, opinions and experiences, and these are referenced in the text as (Participant Interview 19: 00.00).

All personal communications quoted within the text were taken from emails.

ACKNOWLEDGEMENTS

First, I would like to thank all those who took part in the interviews. Most of the archaeologists I interviewed I had never meet before, and I am grateful to you all for your time, your help and your understanding, and I hope the interviews process was not too arduous. I would also like to thank all the friends and colleagues I have worked with over years, especially those who have made me question what I was doing and why I was doing it. Finally, I would like to thank Steve Roskams at the University of York for all his advice, support and assistance.

DECLARATION

This thesis is the result of the author's original work unless where specifically referenced in this work. Also, it has not been submitted for any other degree at this, or any other university.

All sources are acknowledged as References.

This thesis is also intended to be placed on-line as the basis for a 'community history project' or 'wiki history project' in which fellow archaeologists may be able to make additions or alterations that would then be edited and included within the text as directly attributed quotes, and an amended and updated version of the text may therefore be available at (<http://www.bajr.org/BAJRGuides>) by the beginning of 2018.

INTRODUCTION

‘What gets us into trouble is not what we don’t know,
it’s what we know for sure that just ain’t so.’

(Mark Twain)

This research project is primarily focused upon understanding the individual interpretative techniques and archaeological post-excavation procedures used by professional archaeologists to produce archaeological reports and Archaeological Publications in England and Wales from the establishment of professional archaeology in the late 1960's and early 1970's up to the present day (the late 2010's). The vast majority of the archaeological projects undertaken by these professional archaeologists during this period took place within a complex working environment created by the constantly changing relationships between planning laws, policy documents, developers, consultants, sub-contractors, local planning authorities, local councils, central government and occasionally the media, however, they all had to be completed within limits, limits of time and limits of money. This research project will therefore attempt to unravel this complex working environment and describe and explain how and why those limits changed over time, and what sort of decisions, choices and compromises the archaeologists have had to make in consequence. It will then examine how those decisions, choices and compromises affected the archaeological reports and the Archaeological Publications that were produced, so it is then possible to objectively assess the accuracy and reliability of the archaeological information that they contain.

To achieve this it has been necessary to generate additional information by undertaking a series of recorded interviews with a wide range of professional archaeologists who had worked on individual post-excavation projects for different archaeological units or archaeological organisations at different times during this period. These anonymous interviews focused upon specific individual archaeological projects, how they were managed, organised, staffed and funded, and how they fitted in with or were affected by the contemporary planning laws and policy documents (*context*), but they also focused

upon the detailed personal experiences of the individual archaeologists involved, and the individual interpretative techniques and archaeological post-excavation procedures that they used to complete the resulting post-excavation projects (*process*). It was then possible to use a modified form of Grounded Theory qualitative research methodology (Glaser and Strauss 1967; Willig 2001; Charmaz 2006; Charmaz and Mitchell 2007; Morse 2009; Bryant and Charmaz 2010) to extract new knowledge and new understanding from these interviews and personal experiences, and to then place that new information within a wider chronological context (*change*).

This research project is therefore focused upon understanding what actually happened, the general circumstances surrounding archaeological projects and the time and money limits within which the archaeologists had to work (*context*), the structure of the post-excavation process and the actual methodology and the interpretative techniques that were used to produce the archaeological reports and Archaeological Publications (*process*), and the effect that changing circumstances and attitudes had upon the post-excavation process over time (*change*), and so establish both a ‘causal history’ and a ‘causal explanation’ (not just ‘what happened’ but ‘why did it happen’).

As part of the Grounded Theory qualitative research methodology I am required to produce and present a personal *reflexive* account of my own personal motivation for undertaking this research, and an explanation of how and why this research topic was initially chosen. This *reflexive* account is intended to describe and explain how my own personal views and opinions, and my own personal and professional experiences, as well as my own social and cultural background may have shape the research, so the reader can then assess how and to what extent my own personal views, opinions and assumptions may have influenced the final text (Glaser and Strauss 1967; Willig 2001; Charmaz 2006; Charmaz and Mitchell 2007; Morse 2009; Bryant and Charmaz 2010). This personal *reflexive* account is contained within APPENDIX 3.

THE INITIAL AIMS AND OBJECTIVES

The initial aims of the research were therefore to examine and explain:

- 1 The development of individual recording techniques and archaeological excavation procedures within professional archaeology in Britain over the last fifty years.
- 2 The development of individual interpretative techniques and archaeological post-excavation procedures within professional archaeology in Britain over the last fifty years.
- 3 How these excavation and post-excavation procedures have been affected by both changes in planning legislation and the various archaeological policy documents produced during this period.
- 4 How these excavation and post-excavation procedures have been affected by changing time and money constraints during this period.
- 5 How all of these developments and changes have then affected the archaeological reports and Archaeological Publications produced during this period.

The initial objectives of the research were to produce:

- 1 An oral history archive which would record the developments and changes within the post-excavation process, based upon detailed discussions of individual archaeological projects.
- 2 A comprehensive 'causal history' which would describe and explain how the post-excavation process has developed within professional archaeology in Britain over the last fifty years, and how the archaeological reports and Archaeological Publications produced by this post-excavation process have also changed during this period, and so place those reports and publications within both their developmental context and their wider historical setting.
- 3 A basic 'user's guide' to archaeological reports and Archaeological Publications for future generations of researchers and historians.

These particular aims and objectives were modified in the process of conducting the research due mainly to the wide range of personal experiences and the reluctance of many small commercial archaeological companies to discuss their post-excavation procedures, and though I have been able to discern underlying trends and have managed to track the main changes which have occurred within the post-excavation process as a result of policy documents or new legislation there has at times been far more variation, particularly regional variation, than I had initially expected (see 'Method of Data Collection' and 'Method of Data Analysis' sections below). It has therefore always been my intention to also place the completed text on-line so that it could become the basis for a much wider 'community history project' or 'wiki history project' in which fellow professional archaeologists could make additions or alterations that can then be edited and included within the text either as corrections or as direct quotations. This would act not only as an on-line 'peer review' process, it would also establish a much wider basic consensus which would express the personal experiences of as many professional archaeologists as possible, thus producing both a more accurate 'causal history' which would describe and explain the development of archaeological post-excavation within British professional archaeology over the last fifty years, and a more detailed 'user's guide' to archaeological reports and archaeological publications for future academic researchers and historians.

THE RESEARCH METHODOLOGY

This research is primarily concerned with exploring approaches to post-excavation practice as currently experienced by contracting archaeologists. It is recognised that archaeological contractors work within a policy and regulatory framework (summarised within APPENDIX 2), much of which is administered by non-contracting professional archaeologists. 'Professional archaeologist' in the context of this research refers principally to those working in professional contract archaeology.

Although the policy documents and many of the final archaeological reports and Archaeological Publications are readily available, it is not always possible to establish either the individual interpretative techniques or the overall methodology that was actually used by professional archaeologists to produce these documents, or the limits or constraints within which those archaeologists had to work. It was therefore decided to generate additional information by using a modified form of Grounded Theory (Glaser and Strauss 1967; Willig 2001; Charmaz 2006; Charmaz and Mitchell 2007; Morse 2009; Bryant and Charmaz 2010) to undertake a series of recorded interviews with a number of professional archaeologists who had worked on post-excavation projects for different archaeological units or archaeological organisations at different times over this period.

Grounded Theory was first developed by the American sociologists Barney Glaser and Anselm Strauss in the mid 1960's while they were analysing practices and procedures used to care for terminally ill patients in hospitals in San Francisco, and was then published as a methodology in *The Discovery of Grounded Theory: Strategies for Qualitative Research* in 1967.

Put simply Grounded Theory is a qualitative research methodology which uses a set of flexible guidelines to collect and analyse qualitative data, and develop interpretative theory from the data, rather than applying pre-conceived interpretative theory to the data (Charmaz 2006: 2). Within Grounded Theory methodology there is simultaneous data collection and analysis within a single 'analytical cycle', so following initial data collection and analysis interpretative theories start to 'emerge', and those interpretative

theories then start to guide further data collection, with the researcher looking for additional data which may develop, refine or possibly disprove the emerging interpretative theories (termed ‘theoretical sampling’). Within this single ‘analytical cycle’ there is also a systematic method of ‘constant comparative analysis’, so existing data is constantly re-viewed, revised and re-considered depending upon the emerging interpretative theories, thus ensuring that the interpretative theories remain ‘grounded’ in the data, as well as providing the flexibility to allow the research to move in unexpected directions. The basic ‘analytical cycle’ then continues until the inclusion of additional data no longer refines the emerging interpretative theories, at which point the analysis is probably complete (termed ‘theoretical saturation’). So new interpretative theories ‘emerge’ from the data and remain ‘grounded’ in that data (‘bottom up’ interpretation), rather than letting the data be dominated by or bent to fit pre-existing or established interpretative theories (‘top down’ interpretation) (Willig 2001; Charmaz 2006; Morse 2009).

Grounded Theory was therefore specifically designed ‘to open up a space for the development of new, contextualised theories’ (Willig 2001: 32), and this reversed the standard research procedure and the established institutional orthodoxy which was in use at the time.

‘The standard model of social science research in the 1960s was one in which graduate researchers drew out hypotheses from the works of the grand old men of social theory, and then sought to test those hypotheses in social settings. Glaser and Strauss gave researchers a way out of this model by offering a clear rationale for doing fieldwork without having recourse to the grand theories and grand theorists.’

(Bryant and Charmaz 2010: 46)

This particular theoretical approach was initially used in health service research as a general method of systematic data analysis which could be adapted to various forms of social research, and proved to be particularly popular with sociologists and clinical psychologists who required a high burden of proof and a more structured methodology to support interpretative theories which would have a direct effect upon people’s lives. Most anthropologists, however, considered Grounded Theory too mechanical (Davies 2008:

236; Hammersley and Atkinson 2007: 166 - 168; Charmaz and Mitchell 2007: 171) and preferred to rely upon less structured forms of *reflexive* ethnography and their own personal insight (see Tierney 2001), but despite these reservations Grounded Theory became firmly established as a basis for qualitative research.

‘For a variety of reasons GTM [Grounded Theory Method] steadily gained in popularity, initially in the social sciences and eventually well beyond, moving out into any discipline where research involved contact with human subjects in specific situations. By the late 1990s, surveys indicated that among published papers reporting on qualitative research, two out of every three claimed to be using GMT (Titscher *et al.* 2000).’

(Bryant and Charmaz 2010: 47)

Since its initial formulation in 1967 Grounded Theory has developed in a number of directions, and many different versions or variations of Grounded Theory now exist (Morse 2009: 17). The most recent and probably the most significant (Willig 2001: 7) of these is Social Constructionist Grounded Theory (also referred to as Social Constructivist Grounded Theory) (Charmaz 2006; Charmaz 2009: 127 - 147), which responds to the criticism that Grounded Theory is too ‘positivist’ by recognising the active role of the researcher within the research process. Social Constructionist Grounded Theory therefore recognises that interpretative theories do not ‘emerge’ from the data, but are actively ‘constructed’ when the researcher interacts with the data, so by implication a different researcher may interact with the same data and ‘construct’ a different set of interpretative theories. Social Constructionist Grounded Theory attempts to address this issue by acknowledging the position of the researcher within the research and incorporating *reflexivity* into Grounded Theory. (The general term Grounded Theory is used to refer to this form of Social Constructionist Grounded Theory throughout the rest of this text unless otherwise stated.)

This particular form of Grounded Theory (Social Constructionist Grounded Theory) was chosen as the research methodology because it provided a systematic method of data analysis which would generate new knowledge and new understanding from the personal experiences of individual archaeologists (what historians would refer to as ‘primary

sources material'), and because it provided a flexible method of data collection which would allow the researcher (*myself*) to follow leads and develop interpretative theories which focus upon *context*, *process* and *change* (which is what Grounded Theory was originally intended to do (Charmaz 2006; Willig 2001: 46 - 48)).

This fitted the specific research aims, which were to describe and explain the general circumstances surrounding archaeological projects and the time and money limits within which the archaeologists had to work (*context*), the structure of the post-excavation process and the actual methodology and the interpretative techniques that were used to produce the archaeological reports and Archaeological Publications (*process*), and the effect that changing circumstances and attitudes had upon the post-excavation process over time (*change*), and so establish both a 'causal history' and a 'causal explanation' (not just 'what happened' but 'why did it happen'). However, to achieve this, a number of slight variations had to be made to the standard research process.

The standard form of Grounded Theory as set out by Glaser and Strauss recommended that a full literature review should only take place during the later part of the research process to ensure that the researchers conclusions were drawn from the data and not from the opinions of other academics (Charmaz 2006: 165 - 168), however, as this was intended to be a 'causal history' it was decided to use the main policy documents to establish a basic chronological context during the early stage of the research process (see figure 2 and APPENDIX 2), as this would provide a chronological framework (basic information on what happened when and where) within which the interviews could then take place.

Once the basic chronological framework had been established, it would then be possible to proceed with the normal 'analytical cycle'. This would involve both simultaneous data collection and analysis, with the researcher (*myself*) looking for additional data which may develop, refine or possibly disprove the emerging interpretative theories (termed 'theoretical sampling'), and 'constant comparative analysis' so the existing draft text would be constantly re-viewed, revised and re-written to identify where problems or gaps may have occurred and to refine the direction of the research and indicate where additional data was required. This basic 'analytical cycle' would then continue until the inclusion of

additional data (additional interviews) no longer refined or affected the draft text, at which point the analysis has probably been completed (termed ‘theoretical saturation’).

To ensure that these changes did not compromise the basic principles of Grounded Theory it would also be necessary to incorporate *reflexivity* into the research process. The term *reflexivity* refers to the act of critical self-reflection, where the researcher (*myself*) becomes self-aware, realises that they actively contribute to and cannot remain separate from the research process, and recognises that their own personal opinions and the methods of analysis that they use will both have a significant effect upon the final outcome of the research, so there are two basic forms of reflexivity, *personal reflexivity* and *epistemological reflexivity* (Willig 2001: 10).

Personal reflexivity requires the researcher to first become self-aware (to acknowledge that they are an integral part of the research process, and that they are not independent or detached from the act of observing), and then become self-critical (to realise that they start with expectations based upon personal values, beliefs, interests and experiences, and that this will then influence both the observations made and the interpretation of those observations) (Willig 2001: 10). If the researcher can stand back, reflect, and assess how their own personal views, opinions and behaviour, as well as their social and cultural background may shape the research, then it may to some extent limit the researcher’s personal influence upon the research process (Willig 2001: 10).

Epistemological reflexivity requires the researcher to be equally aware and equally critical of the actual process of research, and reflect upon the way knowledge is formed, how the research design, the methods of analysis and the language used (termed ‘critical language awareness’) may also shape the research (Willig 2001: 10). To maintain this critical research perspective the researcher should fully document both the research process and the ‘construction’ of individual interpretative theories, as well as clearly indicating the data used or referred too (Willig 2001: 10).

If both background information on the researcher (*myself and the earlier part of this Introduction, including APPENDIX 3*) and detailed information on the research process (*this section and the rest of the Introduction*) are then included within the final report any

future reader should be able to assess how and to what extent personal opinions, assumptions and a particular research process may have influenced the final text.

Although often used interchangeably the terms 'method' and 'methodology' refer to different aspects of qualitative research.

'Silverman (1993: 1) suggests that 'methodology' identifies 'a general approach to studying research topics', whereas 'method' refers to 'a specific research technique'. (A further distinction can then be made between methods of data collection and methods of data analysis.)'

(Willig 2001: 8)

METHOD OF DATA COLLECTION

Although there are various possible methods of qualitative data collection (participant observation, focus groups, diaries or contemporary field note (Willig 2001: 21 - 30)) the only possible method of generating additional data on both the individual interpretative techniques and the overall methodology actually used by professional archaeologists over the last fifty years is through a series of recorded interviews with the archaeologists who actually completed post-excavation projects at the time. This would allow the archaeologists to explain the circumstances in which they had to work, the specific procedures they followed and the decisions they eventually made, information that was not recorded or documented at the time.

The choice of participants therefore becomes important, as different archaeologists would have had different experiences and made different decisions at different times, so it is initially intended to interview a representative sample of archaeologists who worked on post-excavation projects for different archaeological units or different archaeological organisations at different times. As the research develops it would then be possible to identify either specific gaps in the representative sample or particular lines of research, and it may then be possible to identify and interview specific archaeologists who may be able to provide specific information.

The success of these interviews would depend upon *getting* the participants to talk freely and openly about their experiences, or to paraphrase Glaser the basic intention is to establish 'what did happen', not 'what should, could or ought to have happened' (Glaser 1999: 840, cited in Willig 2001: 47). To do this it will be necessary for the researcher to establish a sympathetic and understanding rapport with the participants based upon mutual trust, and so prevent the participants from feeling judged or interrogated. As part of this process it will be necessary to ensure that the interviews are conducted under strict conditions of anonymity and confidentiality. This anonymity will be maintained by using a coded Participant Form which would replace both the name of the participant and the archaeological unit or archaeological organisation they worked for with alphanumeric codes with the original information held on a separate confidential Key Form, and in some cases it may be necessary to give single participants two separate interview numbers to obscure their work history. If information from an interview is then directly quoted within

the draft text either the participants interview number or where necessary the name of the archaeological unit or archaeological organisation will be used for referencing, but never both. The vast majority of the post-excavation projects undertaken by professional archaeologists would also have been completed within strict limits, limits of time and limits of money, and usually the archaeologists who completed these post-excavation projects had no control over what those limits were. In an attempt to encourage the participants to talk openly about their experiences it may therefore be best to clearly establish at the start of each stage of the interview what the time and money limits were and the circumstances under which the participants had to work, and so clearly indicate that the decisions that the participants made were frequently the result of necessity and not free choice, and that the participants may have made different decisions in different circumstances.

The success of these interviews would also depend upon *allowing* the participants to talk freely and openly about their experiences. The interviews should therefore be semi-structured open-ended conversations with only a basic Interview Agenda consisting of a relatively small number of general headings or discussion points which are intended to both steer the interview and encourage the participant to describe their experiences, either as general trends or by using certain post-excavation projects as specific examples. This will require both sensitivity on the part of the researcher and a careful balance between maintaining an element of control and direction over the interview to ensure that the research questions are discussed, and allowing the participants the space to re-define the research questions under discussion, and so present the researcher with both a different perspective and views, ideas or insights that the researcher may not have previously considered (Willig 2001: 21 - 23). The researcher should also allow the participants the space to establish and define the terminology used during the interviews and only add standard equivalent terms during transcription, as the specific terminology used may indicate the origins of the ideas or concepts that the participants are attempting to describe ('critical language awareness'), and the initial emphasis should be upon meaning, context and open narrative rather than imposing conformity and consistency (Willig 2001; Charmaz 2006).

So following the initial research process and the completion of a basic chronological framework it was then possible to identify a number of initial research questions which could be used as topics or focal points during the interviews. These initial research questions centred around five main points:

1 THE CONTEXT

The circumstances surrounding post-excavation projects, and the time and money limits within which the participants had to work, how they changed over time, and why.

2 THE PROCESS

The structure of the post-excavation process, and the actual methodology and the interpretative techniques that the participants used during post-excavation projects, and what sort of compromises they had to make.

3 THE DOCUMENTATION

The form, structure and standard of the various reports and management documents produced by the participants during post-excavation projects, and the effect that these have had upon the archaeological reports and Archaeological Publications that were finally produced, possibly followed by consulting the actual reports and publications that are being referred to.

4 THE POLICY DOCUMENTS

The effect and the influence of the various policy documents upon post-excavation projects at various times.

5 CHANGE AND THE REASONS FOR CHANGE

The evidence of both short-term and long-term change and transition, and the possible reasons why.

From these initial research questions and the basic chronological framework it was then possible to produce an initial Interview Agenda.

THE INTERVIEW AGENDA

1 PROJECT BACKGROUND

Part of this project is an attempt to establish how archaeological reports and Archaeological Publications have been produced by professional archaeology over the last fifty years, and so put these documents into a wider analytical context.

Although the policy documents and many of the original reports and publications are readily available, there is very little reliable information on how these documents were actually produced, and it is not always possible to establish either the overall methodology or the individual interpretative techniques used by archaeologists during post-excavation projects, or the time and money limits within which those archaeologists had to work.

The objective of this series of semi-structured interviews is therefore to generate additional information by establishing:

- 1 What the time and money limits were, how they changed over time, and why.
- 2 What methodology and interpretative techniques were used, and what sort of compromises had to be made.
- 3 How this affected the archaeological reports and Archaeological Publications that were finally produced.

2 BASIC QUESTIONS BY PERIOD

(Establish how the post-excavation projects were actually done, by Period, using the following points as a guide, and discuss either specific Archaeological Projects as examples or more general trends depending upon what the participants feels more comfortable with.)

EXCAVATION PROCESS

- How were the archaeological excavations projects organised at this time?
- What resources were available? (Time / Money / Staffing)
- What methodology was used? (Basic Description)
- What sort of archaeological records were being produced?

POST-EXCAVATION PROCESS

- How were the archaeological post-excavation projects organised and structured at the time?
 - Which post-excavation projects did you undertake?
 - What resources were available? (Time / Money / Staffing)
 - What methodology was used? (Basic Description and Process)
- 1 CHECKING THE RECORDS AND PRODUCING A POSSIBLE INTERPRETATION.
- Were the archaeological records, Plans and Sections checked?
 - Did you have time to produce an ordered, indexed and internally consistent Site Archive?
 - Was a Stratigraphic Matrix or Phase Matrix produced?
- 2 IDENTIFYING THE FINDS AND PRODUCING FINDS REPORTS.
- What number and type of Finds Reports were produced?
 - What size and level of detail did the Finds Reports contain?
 - Did this structure assist the interpretation process?
- 3 INTEGRATING THE FINDS REPORTS WITH THE POSSIBLE INTERPRETATION.
- What dating methodology was use?
 - How were the dates integrated into the possible interpretation?
 - Was a Period Matrix used?
- 4 THE COMPLETION OF A FINAL REPORT OR PUBLICATION.
- Did the post-excavation project ever produce an archaeological report?
 - What sort of structure did it have?
 - What size was the report, and what level of detail or interpretation did it contain?

 - Did the final report ever get published and where?
 - Was the final report or publication ever used in any town level interpretations?
 - Is the Site Archive still available and where?

PROBLEMS WITH THIS PROCESS

- Was this process typical of the archaeological unit or archaeological organisation at the time?
- Were there sufficient time and money resources available, and if not, where were saving and shortcuts made?
- Did this general process create any wider problems or difficulties?

THE POLICY DOCUMENTS

- What influence did the next policy documents have?
- Did this policy document have any direct or indirect effect / reaction?
- When did any noticeable change occur and why?

(Repeat interview by Period.)

3 FOLLOW UP QUESTIONS

(Conclude with any follow up questions based on points raised during the interview, and any comments or advice that the participants wish to add. Then ask if there is anyone else I should talk to.)

PARTICIPANT FORM

PARTICIPANT INTERVIEW NUMBER	PARTICIPANT EMPLOYED BY	PERIOD SPENT COMPLETING POST-EXCAVATION PROJECTS						INTERVIEW DATE	INTERVIEW DURATION
		Early 1970's to Mid 1970's	Late 1970's to Early 1980's	Mid 1980's to Late 1980's	The 1990's	The 2000's	The 2010's		
P 01	ORG 01							11/02/2013	72 Mins
P 02	ORG 01							13/02/2013	40 Mins
P 03	ORG 01							13/02/2013	34 Mins
P 04	ORG 02							30/05/2013	67 Mins
P 05	ORG 03							18/06/2013	113 Mins
P 06	ORG 04							28/06/2013	73 Mins
P 07	ORG 05							23/10/2013	45 Mins
P 08	ORG 06							23/10/2013	50 Mins
P 09	ORG 07							23/10/2013	79 Mins
P 10	ORG 08							17/09/2014	154 Mins
P 11	ORG 08							17/09/2014	154 Mins
P 12	ORG 08							17/09/2014	154 Mins
P 13	ORG 09							24/09/2014	148 Mins
P 14	ORG 10							27/10/2014	95 Mins
P 15	ORG 11							27/10/2014	108 Mins
P 16	ORG 12							3/11/2014	103 Mins
P 17	ORG 12							3/11/2014	90 Mins
P 18	ORG 13							10/11/2014	129 Mins
P 19	ORG 14							17/05/2016	127 Mins
P 20									
P 21									
P 22									
P 23									
P 24									

METHOD OF DATA ANALYSIS

Unlike most other research methods Grounded Theory merges the process of data collection and analysis within a single 'analytical cycle' (Willig 2001: 36), so once an interview has been completed it can then be transcribed and immediately analysed before the next interview takes place.

This process would therefore start with a near verbatim transcription of the recorded interview which would include incomplete sentences, false starts and word repetition, but would not contain full transcription notation (Willig 2001: 24 - 25) and may also have been slightly edited to remove external interruptions as well as any extraneous or irrelevant comments. Once this transcript has been completed the researcher would then attempt to annotate the text and include standard equivalent terms (added in squared brackets) for the terminology used during the interview by both the researcher and the participant to describe various documents, reports or interpretative techniques.

Upon first examining an interview transcript it will be necessary to attempt to establish the overall context of the views being expressed and what version of past events is actually being described, whether the text represents a truthful recollection of past experiences and a straightforward expression of the participant's views and opinions, or whether the text represents either a poor, disjointed or inaccurate version of past events (the participant cannot actually remember what they did) or an act of self justification (the participant is actually presenting what they should, could or ought to have done), which although it may be revealing will not be as enlightening (Willig 2001: 9 - 10).

Having placed the interview in some form of wider context it would then be possible to examine the transcript as qualitative data using a modified form of Grounded Theory (Glaser and Strauss 1967; Willig 2001; Charmaz 2006). This process would start with the researcher (*myself*) identifying and marking key points within the transcripts with a series of self-generating / incident-by-incident descriptive *codes* using terms either defined by or with specific meaning for the participant (Saldaña 2009; Charmaz 2006: 53). (This method of coding is intended to keep the researcher close to the data and forces them to be systematic and meticulous.) These *codes* are then grouped together into similar partially established descriptive *concepts* (with headings) to make them more workable and to

eliminate duplication. Similar *concepts* are then grouped into broad analytical *categories* (with headings) which are then sorted or ordered (both internally and externally) to identify links and establish relationships. This process therefore moves from descriptive *concepts* to increasingly more analytical *categories* in an attempt to identify, refine and integrate specific points and extract meaning based upon increasing levels of analytical abstraction.

It will then be possible to use these analytical *categories* and their links and relationships to compile or ‘construct’ a collection of interpretative *theories* or models which broadly account for or explain the research questions discussed during the interview. Within this basic ‘analytical cycle’ there would also be ‘constant comparative analysis’, so all the existing data is constantly re-considered, re-examined and may even be re-coded depending upon the emerging interpretative *theories*, thus ensuring that the interpretative *theories* remain grounded in the data. The interpretative *theories* may also guide further data collection, with the researcher looking for additional data which may develop, refine or possibly disprove the emerging interpretative *theories*, as well as possibly re-adjusting or refining the initial research questions or the current Interview Agenda to provide or produce more appropriate data (Boeije 2010).

This basic ‘analytical cycle’ is then repeated with the start of the next interview.

While going through the process of data collection and analysis the researcher is also writing annotated notes or *memos* and producing analytical diagrams intended to both record the emerging interpretative *theories* and document the actual research process (Glaser and Strauss 1967; Willig 2001; Charmaz 2006). These *memos* therefore form a central part of the research process, and are initially used to describe and define the developing *concepts*, *categories* and emerging interpretative *theories*. As the number of *memos* grows they are clustered, sorted and ordered to both explain and illustrate the internal and external links and relationships between various *concepts*, *categories* and emerging interpretative *theories* (termed ‘theoretical sorting’), so in this particular case the *memos* are used to identify and describe potentially significant events or factors and the possible causal links and relationships between those specific events or factors. These *memos* are also subject to ‘constant comparative analysis’, re-viewing, re-writing and

expanding to identify where problems or gaps may exist and where data needs to be re-checked or re-examined. (This forces the researcher to constantly test and re-consider the underlying structure and direction of the research, and is also used to both re-focus coding and draw out the emerging interpretative *theories*.) Once memo writing and sorting has reached the point where a clear picture or underlying structure is starting to emerge then individual *memos* or the information they contain can then be incorporated into the outline first draft in the appropriate chronological position, and these additions or alterations are also referenced so the information they contain can be traced back to specific pages within the transcripts and through them back to the original MP3 recordings.

As the process of data collection and analysis continues this draft text is also constantly re-viewed, revised and re-written to identify where problems or gaps may have occurred, or where specific examples from the transcripts may be included to support or illustrate specific points. The current draft text therefore remains only a draft text and a working document until ‘theoretical saturation’ has been reached, at which point the current draft text becomes the final text.

Finally, as part of the basic ‘analytical cycle’ it is also necessary to produce a *reflexive* account of the research process which both documents and describes data collection and data analysis, and which also explains how my personal views and opinions changed during the course of the research. (*This reflexive account which describes both the basic ‘analytical cycle’ and the overall research process is contained within the following section.*)

THE RESEARCH PROCESS

To undertake the interviews I initially emailed a wide range of archaeological organisations (about fifteen to twenty in total) of various sizes which operated within different locations throughout England and Wales to ask if I as a post-graduate student doing academic research on archaeological post-excavation could talk to them about their post-excavation procedures and their archaeological reports and Archaeological Publications, however, the only archaeological organisations to reply to these emails were the ones where I had fairly recent personal connections, so they knew me and what I was doing and they were therefore willing to help. These initial interviews therefore tended to be conducted in small batches with a number of participants from within the same archaeological organisation, and after initial nervousness on my part they soon fell into a natural pattern of discussing specific archaeological projects in a chronological sequence based roughly upon the post-excavation process used for each project and the problems or difficulties that were encountered, but while still letting the conversation develop in whatever direction the participants wished to go, and I found that the Interview Agenda then became a 'prop' which covered the initial nervousness at the start of the interview but which was then ignored after the opening few minutes. This semi-structured open ended form of conversation usually led to a relaxed atmosphere in which the participants talked freely about the things that they considered to be most relevant or most important, and though this occasionally left some specific questions unanswered, it also provided additional information on points or subjects that I had not previously considered, and what the participants wanted to talk about and what the participants did not want to talk about was in itself very revealing.

(While producing the initial batch of interview transcripts I soon realised how much I used my own personal experiences to encourage the interview participants to talk openly about their experiences, and that I had a natural tendency both during the interviews and while writing the text to fill in gaps with my own personal experiences as a professional archaeologist. Most of the time these experiences appear to have been fairly typical, however, on occasions they were not and this would then come out during the interviews, so for example I had failed to recognise the full significance of the of grant funded post-excavation Backlog Programs in the early 1990's. These corrections would then require

re-writing specific sections of the draft text before the next batch of interviews took place, and though the final text will not cover everyone's personal experiences, all of the main events and key points should have been identified and explained.)

One of the key points to emerge during the initial batch of interviews was that most of the policy documents had had only a limited and indirect effect upon the post-excavation process, and by mentioning individual policy documents I was actually 'prompting' interview participants to discuss documents which they did not really think were either significant or relevant, and in some cases I suspected that the interview participants had not even heard of these policy documents, let alone read them.

(This particularly applied to policy documents produced after PPG16 and MAP2 which could not be enforced upon commercial companies, and which were therefore not relevant to the everyday jobs of the individual archaeologists who had to work within the financial limits of commercial contracts. To test this theory I deliberately did not mention the Southport Report (Southport Group 2011b) which was published in July 2011, 19 months before the first interview, and in almost 23 hours and 20 minutes of recorded conversation about archaeological post-excavation, archaeological publication and archaeological policy documents nobody mentioned the Southport Report once.)

Archaeologists were not therefore basing the post-excavation process upon the policy documents or any other form of academic or professional guidelines, but they were copying the form and structure of earlier reports and earlier publications (usually from within the same archaeological unit or archaeological organisation), altering or adapting them slightly depending upon individual circumstances and personal preferences, and then adopting a post-excavation process which would produce that type of report or publication within the limits of the time and money available, so the form, structure and content of archaeological reports and Archaeological Publications had 'evolved' over time as a result of local circumstances and changes in project funding. This has led to wide regional variation, produced not only as a result of different legalisation and funding arrangements in England, Scotland and Wales, but also due to the way that that legislation was implemented at a local level and the local report and archive requirements set by the City

or County Archaeologists, and this could come down to the attitudes of specific individuals and local economic conditions.

(These regional variations then influenced the choice of interview participants, increasing the number of interviews to be undertaken and the amount of travelling, and the dates in the basic chronological framework were also adjusted to reflect the knock-on effect of changes in project funding.)

After conducting the initial batch of interviews I then used the MP3 recordings to create near verbatim transcripts which included mumbling, laughter, incomplete sentences, false starts, interruptions, and word repetition, as well as the more obvious pauses and the occasional emphasis placed upon a particular word (shown by underlining). The transcripts were also edited slightly to remove external interruptions and irrelevant comments, and the sequence or order of specific comments was occasionally changed to clarify the situation when two people were talking at the same time, which was usually my fault. The intention was therefore to provide a clear and accurate written account of the content of the interviews, and if possible reproduce the timing of the conversation so when read it would sound like two people talking, this usually involve checking the repetition of words and ensuring that comers or other forms of notation indicated where and for how long pauses were used within the sentences, a comers in the wrong place could entirely change the emphasis. I also did one interview with three interview participants at the same time and that was very difficult to transcribe, trying to work out who said what while three or more people were all talking at the same time took days, and I had to listen and re-listen to the same sections again and again while trying to tune into individual voices. Having said that, that particular interview did turned into a group therapy session for post-excavation staff and probably produced the most useful new information.

While completing the transcripts I also annotating the text (shown in squared brackets) to include standard equivalent terms to describe various reports, documents or interpretative techniques, and also to provide some explanatory background information on named individuals, specific sites or previous publications which the interview participant assumed that I would know, and this additional information helped to clarify the conversation for both me and hopefully for any future reader. While doing the transcripts

I also noticed that some of the most interesting information came after I had said the interview was over as the interview participants then tended to relax and talk more freely, so when doing the interviews I did not rush to turn the recorder off. The interviews with lots of laughter in them also seemed to be more open and less guarded, and that could have been my particular mood on the day or the individual interview participant, but the more open and relaxed I was the more forthcoming interview participants were.

Once a transcript had been completed and checked I then printed out a copy of the Word file and produced a comb binder volume, which I then used as an established text. This allowed me to support particular points within the draft text by referencing page numbers within the transcripts, as well as allowing me to either paraphrase or quote from sections of transcripts, although direct quoting was slightly difficult as a particular point in a two way conversation could be spread out over a page or more of near verbatim transcript. I had also included timing markers at five-minute intervals within the transcripts, so it was possible to trace a specific reference in the draft text back to a particular page within a transcript, and from there back to an appropriate point within the original MP3 recording.

I also used these comb binder volumes to complete the initial coding by annotating the transcripts while listening to the MP3 recording. This was done by going through individual transcripts and identifying and marking (usually in red pen) key points in the text with a series of self-generating incident-by-incident descriptive *codes* using terms either defined by or with specific meaning for the participant, such as ‘client’, ‘finds’, ‘funding’, ‘Assessment Report’, ‘compromise’, ‘staffing’, and while doing this I also included short descriptive phrases or basic ideas which had been prompted by the content of the transcript or which summarised the points being made. In some cases this coding process was done several times to pick out specific points (usually marked in a different coloured pen), such as specific mentions of funding or specific mentions of Finds Reports, and I also seemed to be able to remember the rough location of relevant points and would check the transcripts and the coding while completing the draft text.

(The following example illustrates how the transcripts were coded. This particular page was chosen because it contains both coding and paraphrasing.)

EXAMPLE OF CODING

Researcher: Anybody reading them only want something to reference, something to quote.

Participant: Ye.

End users referencing and quoting from publications (confirmed)

Researcher: Without having to go through all the other information.

Participant: Yes, yes, yes, it depends how it's done I think probably um, I think the real problem with that sort of thing is, is, I mean, this is something which has been around since, since, certainly since the 'Cunliffe Report' [published in 1983] I don't know about the ah, earlier than that, I'm not sure if it wasn't in Frere [Published in 1975], but it was certainly in Cunliffe, um there was a tendency to publish a synthesis as you were saying.

Publication of just a synthesis (late 1980's onward)

Researcher: Ye.

Participant: The directors thoughts on the site basically.

a personal interpretation

Researcher: Yes, ye.

Decline in the importance of published finds data, (late 1980's onward)

Participant: Um, in, in hardback form, as it were, and, and the finds either go.

Researcher: Are all shuffled off somewhere else.

use of microfiche

Participant: Are either shuffled off onto microfiche or are not there at all um, which means that there is absolutely no way of going back and checking, and, and, you know.

Researcher: Yes, ye.

*1 The need for access to raw data
2 The ability to trace interpretation back to the site archive*

Participant: One can dance up and down and say that in fifty years time this guys thoughts on the site will not be worth reading.

view of these publications in 50 years

Researcher: Well yes, but that is in fifty years time.

(Laughter)

a short sighted short-term approach (confirmed)

Participant: Well exactly, ye.

(Laughter)

Participant: But what do you need, you see, is to look at what he actually found, and, and, you know, to be able to redo it, you know.

Re-interpretation from raw data

This part of the transcript has also been paraphrased at the end of ‘The Development of Preservation by Interpretation’ section in the draft text in the following paragraph:

‘As one of the interview participants put it, the archaeological reports and Archaeological Publications produced these days are nothing more than the personal thoughts of the Site Director, and in fifty years time no one will want to read the personal thoughts of the Site Director, they will want access to the basic data so it can be re-interpreted in the light of new evidence (Participant Interview 04: 43).’

(This coding was a very time consuming manual process, and if I were to do this project again I would use NVivo Computer Assisted Qualitative Data Analysis (CAQDAS) software to help with both the coding and the data analysis, particularly accessing and organising the original coding, and this type of data management and analysis software appears to be used as the basic research tool on an increasing number of large historical research projects. There are a number of different CAQDAS software packages available, but most are based on grounded theory, and are designed to assist in data collection and the analysis of large amounts of disparate information (Hammersley and Atkinson 2007: 154 - 156; Lewins and Silver, 2007; see also <http://caqdas.soc.surrey.ac.uk/gis.html> (accessed 2009)).

These descriptive *codes* were then grouped together into similar descriptive *concepts* (with headings) to lessen the overall number of variables and to produce some level of consistency between different interview participants. This was done by using the descriptive *codes* to produce headings (in brackets), and then attaching descriptive text which consisted of short phrases or basic ideas that had been prompted by the content of the transcript.

(The following examples illustrate specific descriptive *concepts* (with headings) which were compiled from the coding and which were eventually worked into the draft text.)

(**THE MSC POST-EXCAVATION BACKLOG** - LATE 1980's TO EARLY 1990's)

Developed pre 1987 (some MSC post-excavation projects set up on site during excavation).

Specialist post-excavation teams set up post PPG16 (1990) by larger archaeological units to deal with the MSC post-excavation backlog, grant funded by English Heritage or CADW (Scotland?).

Some of these then developed into permanent post-excavation teams within the larger archaeological units.

(**ARCHAEOLOGICAL JOURNALS** - 2010's)

A number of **regional archaeological journals** appear to be considering producing smaller printed site summaries or archaeological notes, and then move to on-line publishing for individual articles, which may then be able to contain larger reports and additional information.

(**ARCHAEOLOGICAL PUBLICATION** - 2010's)

Archaeological Publication were initially intended to be a means to an end, a means of preserving and disseminating accurate archaeological information.

Now they have become an end in itself linked to billing developers and without considering the quality or the accuracy of the information that they contain or the possible academic use that that information could be put to in the future.

So a single descriptive *concept* consisted of a heading (which summarised the descriptive text), and the descriptive text (which explained and expanded on the heading.) These descriptive *concepts* could then be merged if they had similar headings (thus adding to the descriptive text), or they could be sub-divided if the descriptive text ended up referring to two or more different things (thus generating a new heading and a new descriptive *concept*). Again this was a time consuming manual process done on printouts spread out on the floor, however it finally produced a list of descriptive *concepts* (which were specific discussion points that had either emerged from or been suggested by the interview transcripts), and most of these descriptive *concepts* eventually became the basis for descriptive written *memos*.

(As the research process developed the descriptive *codes* (and therefore the headings of the descriptive *concepts*) tended to become established as standard terms as I recognised similar points within a number of different transcripts, and I then started to develop a standardised terminology and a form of glossary which in turn effected the coding of later transcripts (these also tended to become the standard equivalent terms added to the transcripts in squared brackets)).

Similar descriptive *concepts* were then grouped into broad analytical *categories* (with headings) which were then sorted and ordered (both internally and externally) to identify links or relationships and establish differing or opposing opinions or points of view. This was also a manual process which initially involved printing out lists of descriptive *concepts* and spreading them out on the floor, and then using the headings to group individual descriptive *concepts*, first into broad analytical *categories* (based upon the structure of the post-excavation process (the four basic stages) and a number of key variables which would have affected the post-excavation process), and then into some form of chronological order within each analytical *category*. The initial analytical *categories* used were:

- 1 Personal Motivation and General Attitudes towards both post-excavation projects and academic credit.

- 2 The Specific Circumstances - The Time and Money constrains for archaeological projects, post-excavation projects, and Archaeological Publications.
- 3 Attitudes towards Grant Funding Authorities, the local Archaeological Monitors, the local Councils, the Developers and the Clients.
- 4 Attitudes towards the Site Archive. (Precise 'archaeological records' or basic 'field notes')
- 5 Attitudes towards checking the Site Archive.
- 6 Attitudes towards the Stratigraphic Matrix. ('Running Stratigraphic Matrix', 'Post-Excavation Stratigraphic Matrix', 'No Stratigraphic Matrix')
- 7 Attitudes towards the Specialist Finds Reports. (Number, Size, Quality)
- 8 Methods of integrating Finds Information.
- 9 Methods of Dating. (A 'bottom up' interpretation or various forms of 'top down' interpretation)
- 10 Methods of identifying Intrusive and Residual Contamination.
- 11 Methods of Phasing. (A 'bottom up' interpretation or various forms of 'top down' interpretation)
- 12 Attitudes towards the production of a Synthesis Report.
- 13 Attitudes towards the final archaeological report or Archaeological Publication.
- 14 General problems, difficulties and compromises.
- 15 General Methodology used. (A 'bottom up' interpretation or 'top down' interpretation)
- 16 General Attitudes and Approaches towards archaeological projects, post-excavation projects and Archaeological Publications. (A 'long-term approach' or a 'short-term approach')

(Again this process would have been far easier if I had used NVivo Computer Assisted Qualitative Data Analysis (CAQDAS) software to help with the data analysis, particularly duplicating and tracking descriptive *concepts* which appeared in one or more analytical *categories*.)

Once the basic sorting and ordering of descriptive *concepts* had been done it was then possible to construct an ‘analytical structure’, again by spreading printouts out on the floor. This consisted of six columns which represented the basic time periods within the overall chronological framework, going from the ‘early 1970’s to mid 1970’s’ on the left to the ‘2010’s’ on the right, and four rows which represented the four basic stages of the post-excavation process, going from ‘1 Checking the Site Archive and producing a Stratigraphic Interpretation’ at the top and then down through ‘2 Identifying the finds and producing Finds Reports’, ‘3 Integrating the Finds Reports with the Stratigraphic Interpretation and dating individual stratigraphic deposits’ and finally ‘4 Producing an Archaeological Publication’ at the bottom. An additional row was then added at the bottom of each column which explained the problems that existed with the post-excavation process at that particular time, and another additional row was also added at the top of each column which explained the proposed solution to those problems, which usually consisted of some form of policy document.

(This ‘analytical structure’ eventually became the basic structure of the Archaeological Post-Excavation and Interpretation sections within the draft text, and is reproduced in very simplified form in Figure 2.)

This ‘analytical structure’ made it possible for me to read down individual columns to check the post-excavation process at a particular time, or to read across an individual row to check how specific aspects of the post-excavation process, such as finds analysis for example, changed over time, as well as how the problems which existed at the bottom of one column led to the solutions proposed at the top of the next column, and then by carrying on down that column the effect that those solutions then had on the post-excavation process. It was then possible for me to track continuity and change over time and to identify links, relationships and anomalies, as well as any potential gaps or

omissions which could then be filled in with new headings and new descriptive *concepts*. The linear chronological structure also made it possible for me to consider the general circumstances surrounding archaeological projects and the time and money limits within which the archaeologists had to work at particular times, and possibly within particular regions (*context*), as well as the structure of the post-excavation process and the actual methodology and the interpretative techniques that were used to produce the archaeological reports and Archaeological Publications (*process*), and the effect that changing circumstances and attitudes had upon the post-excavation process over time (*change*).

(As the research process developed it became possible for me to feed new information (in the form of new descriptive *concepts*) directly into this ‘analytical structure’ in the appropriate chronological position, and so identify when individual interview participants were either agreeing with each other (thus producing supporting evidence for the existing ‘analytical structure’) or disagreeing with each other (possibly as a result of differing opinions, experiences or regional variations). Once a number of interview participants from differing archaeological organisations were producing similar descriptive *concepts* and were only providing supporting evidence for the existing ‘analytical structure’ then I was approaching some form of consensus and ‘theoretical saturation’.)

This ‘analytical structure’ therefore formed the basic understanding of what had happened at different times and in different places, and it was then possible to consider why it had happened. This involved compiling or ‘constructing’ a collection of interpretative *theories* or models which would account for and explain changes in attitudes and methodology over time, thus establishing both a ‘causal sequence’ and a ‘causal explanation’ (not just ‘what happened’ but ‘why did it happen’). This was initially done by using tentative hand drawn annotated diagrams which identified particular variables and then attempt to establish either specific timelines or links, relationships and causal sequences, and this proved to be a particularly useful technique when tracking both the names of various archaeological reports and the information that they were meant to contain over time. While some of these ‘analytical diagrams’ were eventually abandoned, others were either typed up and converted into text or were presented as Figures within the main text, so for

example Figure 1, Figure 2 and Figure 3 at the end of this section all started out as hand drawn annotated diagrams.

(At the start of the research process it was necessary for me to keep an open mind and not to formulate interpretative *theories* too early based upon very limited evidence as I did not want to become ‘emotionally attached’ to particular interpretative *theories* in case that then distort the rest of the research. However, as the research process developed I grew more confident in some of these interpretative *theories*, and towards the end of the research process I found myself testing particular interpretative *theories* during participant interviews so I could get direct comments and opinions from the interview participants.)

This sequence of near verbatim transcripts, descriptive *codes*, descriptive *concepts*, analytical *categories* and interpretative *theories* thus formed the basic ‘analytical cycle’, and this ‘analytical cycle’ was then repeated with the start of the next batch of interviews as part of the overall research process. So all of the existing data was constantly reviewed, revised and re-considered and may have even been re-coded after each additional batch of transcripts to identify any additional supportive evidence, any potential gaps or omissions within the basic ‘analytical structure’, or any new interpretative *theories*, and this ‘constant comparative analysis’ then guided further data collection as I deliberately went out and looked for additional data which could develop, refine or possibly disprove particular interpretative *theories*. This was therefore an active research process which initially involved gathering data and forming a basic understanding of what had happened and when, but which towards the end involved filling in gaps, following up leads and asking specific questions.

While going through this process of data collection and analysis I was also writing annotated notes or *memos* which usually consisted of a number of sentences or a single short paragraph of text (with a descriptive heading). These written *memos* were initially used to document the actual data collection and analysis, as well as to define and explain particular descriptive *concepts*, however, as the research process developed they were also used to identify and describe potentially significant events or factors and the possible causal links and relationships between those specific events or factors. These written *memos* therefore formed a central part of the research process as they took the descriptive

concepts, the data analysis and the emerging interpretive *theories* and started to turn them into written text.

(The following example illustrates a specific written *memo* (with heading) which was compiled from the descriptive codes contained within the basic ‘analytical structure’. This particular *memo* was eventually broken up and the information it contained was incorporated into the draft text in a number of different places.)

(REGIONAL VARIATION FOLLOWING SYNTHESIS REPORTS - MID 2000’s TO 2010’s)

Most of the remaining archaeological reports and **Archaeological Publications** produced at this time were either archaeological ‘**grey literature**’ reports or occasional **archaeological monographs**, but even these **archaeological documents** still varied at both a local and a regional level.

This was due mainly to the **local report and archive requirements** set by different **City or County Archaeologists** (Participant Interview 10: 70 - 72; Participant Interview 11: 67 - 72, 101 - 102), but also to the way that different national legislation was implemented at a local level and the **project specific requirements** set by the local **Archaeological Monitors**, and this could come down to the attitudes of specific individuals **at specific times** and the **local economic conditions**.

All of these various requirements were contained within the project specifications or **WSI (Written Scheme of Investigation)** which was either written by or approved by the local **Archaeological Monitor**, and these project ‘**briefs**’ would then establish both the specific aims and objectives of each **archaeological project** and the basic **circumstances** surrounding each **archaeological project** (different commercial **archaeological organisation** would put in competitive tenders for these project ‘**briefs**’, and these competitive tenders would then set the limits of the **time and money** available).

Once completed the archaeological reports and **Archaeological Publications** would have been checked by the local **Archaeological Monitors** to ensure that they had fulfilled the **WSI (Written Scheme of Investigation)**, as well as any other **internal quality control documents** or IFA/CifA standards (which also

depended entirely upon fulfilling the **WSI** (see Chartered Institute for Archaeologists 2014a)).

However, the **Archaeological Monitors** primary role was to monitor **planning applications** and ensure that **planning conditions** were met and they therefore had very little time to check the academic quality of these archaeological documents or the original **Site Archive**, and this checking would then turned into a ‘**tick-box**’ **exercise** to indicate the presence of completed documents (Participant Interview 05: 55 - 61) without considering the accuracy of those documents, and that was not the equivalent of a full academic ‘**peer review**’.

So even though the resulting archaeological reports and **Archaeological Publications** tended to have similar basic structures, they were still **single one-off non-standard documents** of variable quality and reliability.

As the number of individual *memos* grew they were also clustered, sorted and ordered into broad analytical *categories* (termed ‘theoretical sorting’), and were then feed into the ‘analytical structure’ in appropriate positions, gradually replacing the existing descriptive *concepts*, so the ‘analytical structure’ gradually became the initial draft text. This was done by using the descriptive headings (which represented specific points) to first construct a clear linear narrative thread which both explained and illustrated the internal and external links and relationships between various descriptive *concepts* and the emerging interpretive *theories* (a ‘causal sequence’). It was then possible to use the descriptive headings to identify any potential gaps or omissions within the ‘causal sequence’ or where problems may have occurred within the ‘causal explanation’ and to then adjust the initial draft text by either changing the position of individual *memos* within the draft text, or by merging existing *memos* or introducing new *memos* while still maintaining the intrinsic logic of the linear narrative thread. So the various descriptive *concepts*, analytical *categories* and emerging interpretive *theories* and their internal and external links and relationships were used to construct a clear ‘picture’, the individual *memos* were then used to describe or explain the different parts of that ‘picture’, and the clustering, sorting and ordering of those *memos* took those written notes and analytical diagrams and then turned them into a clear and logical description of the entire ‘picture’ and a linear draft text. The initial draft text was not therefore ‘written’, it was ordered and organised as part of the research process.

Once completed the initial draft text was itself constantly reviewed, revised, amended and rewritten throughout the rest of the research process. This involved constantly going through sections of the draft text and checking both the linear structure and the consistency of the terminology, while still maintaining the individual *memos* and their descriptive headings. This checking also involved re-examining the existing interview transcripts and testing the draft text and the emerging interpretative *theories* directly against the original data, and then if necessary amending the draft text either by re-writing or refining existing *memos* or by including direct quotes or references which supported or illustrated specific points or specific interpretative *theories*, so the views and opinions contain within the draft text could be traced back to specific pages within the interview transcripts, and through them back to the original MP3 recordings.

(As the research process developed it was then possible to incorporate information from the latest batch of interview transcripts directly into the current draft text either as additional *memos* which provided additional details or alternative experiences, or as direct quotes or references, especially those produced as the result of direct questions about the emerging interpretative *theories*, and towards the end of the research process I also sent copies of the draft text to the interview participants for their comments, corrections, views and opinions, and I then altered the draft text accordingly. In total 14 of the interviews contained discussions of archaeological projects and the post-excavation procedures used before the introduction of PPG16 in November 1990, and 16 of the interviews contained discussions of archaeological projects and the post-excavation procedures undertaken by 'contracting archaeological organisations' after the introduction of PPG16. Almost all of the interview participants had also fulfilled a number of different archaeological roles for different archaeological organisations in different geographical locations during their long professional careers, so I was able to cover a wide range of different perspectives from different time periods within the same single interview, and a single interview could then develop into three, four or five separate mini interviews linked to specific archaeological projects or specific archaeological roles (for a specific example see my own case in APPENDIX 3), as well as any separate points that the interview participants raised themselves either during or after the interview. In total the interview participants and myself must have discussed close to 50 individual archaeological projects, and on a number

of occasions two different interview participants discussed the same archaeological projects in separate interviews.)

During the initial analysis of interview transcripts a number of more subtle points started to emerge and the most significant of these was the realisation that archaeological interpretation was an entirely personal process, not only in the decisions made but also in the methods and techniques used, and that each individual archaeologist had developed their own personal collection of interpretative methods and techniques (a personal ‘interpretative tool kit’) which they then used to produce the archaeological information contained within the archaeological reports and Archaeological Publications. These individual interpretative methods and techniques were different ways of producing the same type of archaeological information and some were more accurate and reliable than others, however, the choice of which interpretative method or technique to use did not depend upon accuracy or reliability, but upon the archaeologist knowing the method or technique and then upon personal preference and the time and money available, so although the final reports and publications may look similar and have a similar form and structure the interpretative methods and techniques used to produce the archaeological information they contain may have been completely different.

Another point to emerge during the initial analysis was that there was a noticeable divide between participants who were willing to go through the post-excavation process and discuss which interpretative methods and techniques they had used, and participants who were far more cautious and reluctant to explain how they made interpretations, not only with an outsider (*myself as the research*), but also with other archaeologists within the same archaeological organisation, and they seemed to consider archaeological interpretation not only as a personal process but also as a private process. These participants tended to be less experienced Project Officers who had completed their first archaeological project under full commercial conditions within the last ten to fifteen years, and so they tended to hold positions lower down the organisational hierarchy and they may therefore have felt judged or examined and did not want to say anything that might leave them open to any form of criticism. However, this distinction also appeared to correspond to a far more fundamental divide between participants who had a long-term approach to archaeological projects and a long-term commitment to recording for posterity

(‘preservation by record’) and who tended to view each archaeological site as a small part of a bigger picture, and participants who had a short-term approach to archaeological projects with specific short-term aims and objectives and who tended to view each archaeological site as a single self contained experiment and a single commercial contract. This short-term approach also appears to have allowed the post-excavation process to become incorporated within a bureaucratic system of developer led management practices which focuses entirely upon short-term aims and objectives and the need to produce reports and publications as quickly and as cheaply as possible so the project can be completed and the developer can be invoiced, but without considering how those reports or publications would then be used for any further research at some point in the future. So these participants may have been far more cautious during the interviews either because they had been using time and money saving interpretative methods and techniques and they did not want to admit it, or because they have only ever experienced a commercial management system with its short-term aims and objectives and they did not want to reveal their limited understanding of the post-excavation process.

(These differing approaches to archaeological projects also influenced my choice of interview participants, and though I had to initially contact the managers of archaeological organisations or the managers of post-excavation departments to get their permission to conduct the interviews (and they had usually completed post-excavation projects in the 1970’s, 1980’s and 1990’s and were very willing to talk), I also attempted to interview participants lower down the organisational hierarchy who had written up commercial archaeological projects within the last ten to fifteen years in the hope of establishing what was actually happening within these archaeological organisations. While choosing the next batch of interview participants I was also trying to identify individuals or specific archaeological organisations which would be in the best position to provide additional information on either gaps or omissions within the research or on the emerging interpretative *theories*, as well as following leads suggested by previous interview participants. However, this proved to be far more difficult than I had first thought.)

(I initially emailed these individuals or archaeological organisations and said that I was a post-graduate student doing academic research on post-excavation and would it be possible for me to talk to them about how they wrote their reports, and though I realised

that these are commercial organisations and that they have to account for their time, I was a bit surprised by how reluctant some of the archaeological organisations were to talk. The larger archaeological organisations (set up before PPG16) were more willing to talk, and interestingly at one point I noticed that the archaeological organisations that helped the most have now or have had in the past the word ‘trust’ in their name, and this allowed me to examine the establishment and structure of post-excavation departments. Individual archaeologists who had been recommended to me by previous interview participants and whose names I could then mention in the initial email were also more willing to talk, and I was able to use this method to contact and interview a number of individual archaeologists who were or had been local Archaeological Monitors (one interview participant) or were associated with the larger government heritage organisations (English Heritage or CADW) (two interview participants) or were academics who had worked in field archaeology at various times (two interview participants) or where archaeologists involved in wider research projects using existing archaeological reports (three interview participants). However, I had great difficulty getting to talk with the smaller more commercial archaeological organisations, possibly because they had less time to spare for academic researchers or possibly because they were reluctant to talk about their post-excavation procedures. The limited number of replies that I did get from these smaller more commercial archaeological organisations placed a lot of emphasis upon client confidentiality, which they implied also covered the results of their archaeological excavations. I even tried turning up at the offices of one of these commercial archaeological organisations only to find that it was a post office box and a meeting room you could hire by the hour. From an *epistemological* perspective the main problem with this research was therefore that I never got to talk to the people who did not want to talk.)

These differing attitudes and approaches may also indicate an underlying change within professional archaeology, and this then prompts wider more fundamental questions, ‘what are we actually doing and why are we doing it?’, and ‘what is archaeology actually for and what is it that we actually produce?’, ‘what is the end *product*?’, is it intended to be ‘preservation by record’ and the production of an ordered, indexed and internally consistent Site Archive and an academic Archaeological Publication for the local community and future generations, or has current commercial archaeology lost its original academic objectives and just become a way for a few people to make a moderately

comfortable living off developers through a legal form of social blackmail, which is what many developers suspect.

Although these fundamental questions should be highlighted and addressed the current situation is unlikely to change in the near future, and regrettable though this is, it does not alter the fact that large numbers of archaeological reports and Archaeological Publications have already been produced by professional archaeology and will continue to be produced by professional archaeology, and that these reports and publications along with any remaining Site Archives will be the only record we will ever have of these archaeological excavations. So this poses the even more fundamental question of how academics, researchers, and other archaeologists can use this archaeological information to produce higher level interpretations, which after all is supposed to be the purpose of the entire exercise. The easiest way of doing this is to assume that every archaeological report and Archaeological Publication is an entirely accurate academic document and then simply quote or reference relevant sections depending upon whether they fit in with the arguments that are trying to be made, and any errors or mistakes are then the fault of the original author. However, the constantly changing form, structure, content and academic standard of these archaeological reports and Archaeological Publications means that anyone using these archaeological documents should really adopt a far more critical and analytical approach and consider each document as an unverified and potentially unreliable sources of archaeological information until it has been deconstructed and been subjected to critical re-evaluation and a form of standard ‘source criticism’, in effect treating all archaeological reports and Archaeological Publications as if they were historical documents and subjecting them to the same standard ‘historical methods’ used by historians to examine and evaluate historical sources. It is therefore hoped that this research will help with this process by describing and explaining how these archaeological documents have been produced by professional archaeologists over the years, and so act as a detailed ‘user’s guide’ to archaeological reports and Archaeological Publications for future generations of researchers and historians.

THE BASIC CHRONOLOGICAL FRAMEWORK

	ENGLAND	WALES	SCOTLAND
1960			
1961			
1962	Ministry of Public Building and Works (took responsibility for ancient monuments and archaeology in 1962)		
1963			
1964			
1965			
1966			
1967	Civic Amenities Act 1967 (established Conservation Areas)		
1968	Town and Country Planning Act 1968 (extended the protection of listed buildings to include their immediate surroundings)		
1969			
1970	Department of the Environment (took responsibility for ancient monuments and archaeology in 1970)		
	Rescue Archaeological Units and Archaeological Trusts start to be set up (mainly by town councils and regional councils)		
1971	Rescue, the British Archaeological Trust (set up in 1971)		
1972			
1973			
1974			
1975	Hooveringham Gravels Ltd. vs Secretary of State for the Environment (confirmed that local planning departments could refuse planning permission on purely archaeological grounds)		
	Principles of Publication in Rescue Archaeology (the 'Frere Report')		
1976			
1977			
1978			
1979	Ancient Monuments and Archaeological Areas Act 1979 (consolidates earlier legislation. Part II was never enacted in Wales and Scotland)		
1980			
1981			
1982	Institute of Field Archaeologists (set up in 1982)		

	ENGLAND	WALES	SCOTLAND
1983	The Publication of Archaeological Excavations (the 'Cunliffe Report')		
	English Heritage (set up in 1983)		
1984		CADW (set up in 1984)	
1985			
1986			
1987			
1988			
1989	The Rose Theatre Excavation		
1990	Planning Policy Guidance 16 (established 'preservation in situ')		
1991		Planning Policy Guidance 16 (Wales) (established 'preservation in situ')	Historic Scotland (set up in 1991)
	Management of Archaeological Projects (MAP2)		
1992	Archaeological Publication, Archives and Collections: Towards a National Policy (the 'SoA Report')		
1993			
1994			NPPG 5 / PAN 42: Archaeology (established 'preservation in situ')
1995			
1996		Welsh Office Circular 60/96 (gave Archaeological Monitors more control)	
1997			
1998			
1999			
2000			
2001	From the Ground Up: The Publication of Archaeological Projects (the 'PUNS Report')		
2002		Planning Policy Wales (Edition 1) (includes summary of WOC 60/96)	
2003			
2004			
2005			
2006			
2007			
2008			

	ENGLAND	WALES	SCOTLAND
2009	Management of Research Projects in the Historic Environment (MoRPHE)		
2010	Planning Policy Statement 5	Planning Policy Wales (Edition 2/3) (includes summary of WOC 60/96)	
2011	Realising The Benefits Of Planning-Led Investigation In The Historic Environment: A Framework For Delivery (the 'Southport Report')		
		Planning Policy Wales (Edition 4) (includes summary of WOC 60/96)	PAN 2/2011: Planning and Archaeology
2012	National Planning Policy Framework	Planning Policy Wales (Edition 5) (includes summary of WOC 60/96)	
2013			
2014	Planning Practice Guidance	Planning Policy Wales (Edition 6/7) (includes summary of WOC 60/96)	
	Standard and Guidance Documents (Chartered Institute for Archaeologists)		
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			

Figure 1: The basic chronological framework.

THE CHANGING POST-EXCAVATION PROCESS

	THE ESTABLISHMENT OF PRESERVATION BY PUBLICATION (The early 1970's to mid 1970's)	THE DEVELOPMENT OF PRESERVATION BY RECORD (The late 1970's to early 1980's)	THE CONSOLIDATION OF PRESERVATION BY RECORD (The mid 1980's to late 1980's)
STAGE 1 (Stratigraphy)	Checking the archaeological records and compiling the Description Section. <p style="text-align: center;">Description Section # (LEVEL 0 interpretation)</p>	Checking the archaeological records and producing a possible interpretation. <p style="text-align: center;">Interim Report # (LEVEL 1 interpretation)</p> (In Frere this would have been a LEVEL III Report)	Checking the archaeological records and producing a possible interpretation. <p style="text-align: center;">Phase Group Descriptions or Group Text</p> and a possible Interim Report (LEVEL 1 interpretation)
STAGE 2 (Finds)	Identifying the finds and producing individual Finds Catalogues. <p style="text-align: center;">Finds Catalogues ° (Basic information and a short discussion)</p>	Identifying the finds and producing individual Finds Catalogues. <p style="text-align: center;">Finds Catalogues or Specialist Finds Reports ° (Basic information and a detailed discussion)</p>	Identifying the finds and producing Specialist Finds Reports. <p style="text-align: center;">Specialist Finds Reports ° (An increasing number of large reports)</p>
STAGE 3 (Dating)	Integrating the Finds Catalogues with the Description Section. (a possible section on dating)	Integrating the Finds Catalogues with the possible interpretation. a possible Dated Interim Report (LEVEL 2 interpretation) (In Frere this would have been a LEVEL III ½ Report)	Integrating the Specialist Finds Reports with the possible interpretation. <p style="text-align: center;">Summary Report # or Archive Report (LEVEL 2 interpretation)</p>
STAGE 4 (Report)	Complete the Interpretation Section. <p style="text-align: center;">Interpretation Section * (LEVEL 1 interpretation)</p> <p style="text-align: center;">Archaeological Report Archaeological Publication</p>	The completion of a Synthesis Report. <p style="text-align: center;">Synthesis Report * (LEVEL 3 interpretation)</p> <p style="text-align: center;">Archaeological Report Archaeological Publication</p>	The completion of a Synthesis Report. <p style="text-align: center;">Synthesis Report * (LEVEL 3 interpretation)</p> <p style="text-align: center;">Archaeological Report Archaeological Publication</p>

	THE DEVELOPMENT OF SELECTIVITY (The 1990's)	THE DEVELOPMENT OF PRESERVATION BY INTERPRETATION (The 2000's)	THE CONSOLIDATION OF PRESERVATION BY INTERPRETATION (The 2010's)
STAGE 1 (Stratigraphy)	Checking the archaeological records and producing a possible interpretation. Phase Group Descriptions or Group Text	Checking the archaeological records and producing a possible interpretation.	Basic sorting and ordering.
STAGE 2 (Finds)	Identifying the finds and producing Specialist Finds Assessments Reports. Specialist Finds Assessments Reports ° (A large number of small reports)	Identifying the finds and producing Specialist Finds Assessments Reports. Specialist Finds Assessments Reports ° (A decreasing number of small reports)	Identifying the finds and producing Specialist Finds Assessments Reports. Specialist Finds Assessments Reports (A limited number of small reports)
STAGE 3 (Dating)	Integrating the Specialist Finds Assessment Reports with the possible interpretation. Assessment Report # or Archive Report (LEVEL 3 interpretation)	Integrating the Specialist Finds Assessment Reports with the possible interpretation. Assessment Report # or initial Client Report (LEVEL 3 interpretation)	Integrating the Specialist Finds Assessment Reports with a possible interpretation. initial Client Report (Assessment Report) (LEVEL 3 interpretation)
STAGE 4 (Report)	Full analysis and the completion of a Synthesis Report. Synthesis Report * (LEVEL 4 interpretation) Archaeological Report Archaeological Publication	Full analysis and the completion of a Synthesis Report. Synthesis Report * or higher level Client Report (LEVEL 4 interpretation) Archaeological Report Archaeological Publication	Full analysis and the completion of a Client Report. higher level Client Report and a possible Synthesis Report * (LEVEL 4 interpretation) Archaeological Report Archaeological Publication

Sections which usually appeared in the final Archaeological Publication. (**Description Section** #) (**Finds Section** °) (**Interpretation Section** *)

Figure 2: The changing post-excavation process.

LEVEL OF INTERPRETATION

In an attempt to both analyse and explain changes in the structure of archaeological interpretation it is necessary to distinguish between different consecutive levels of interpretation:

(LEVEL 6 Interpretation) A general high-level interpretation including general history books on specific geographical regions, specific historic periods or individual ethnic groups, and usually based upon a number of specialist high-level interpretations and available historical documentary evidence, with mid-level interpretations used as specific examples. This is either a more speculative interpretation, or a generalised overview or synthesis if it involves large amounts of information.

(Region / Period Level Interpretations and Publications)

(LEVEL 5 Interpretation) A specialist high-level contextual interpretation of individual towns, landscapes, regions and/or periods, subjects or collective identity, and based upon a number of mid-level interpretations and additional historical and documentary evidence.

(Town / Landscape Level Interpretations and Publications)

(LEVEL 4 Interpretation) A *discursive* mid-level site interpretation or area interpretation which attempts to produce a historical synthesis of the entire area, highlighting evidence of underlying *historical trends*, and based upon all the dated archaeological information, the results of specialist research and analysis, and additional historical and documentary evidence.

(LEVEL 3 Interpretation) A *descriptive* mid-level site interpretation or area interpretation which attempts to reconstruct the contemporary physical environment and the development or decline of the entire area as a sequence of dated *historical events*, and based upon all of the dated archaeological information and specific documentary evidence.

(LEVEL 2 Interpretation) A dated low-level archaeological interpretation done either by directly dating or by Historic Period and sequence, and based upon the basic interpretation of activity in sequence.

(A Research Archive and a dated Archive Report, including a Period Matrix (The Area/Date Table))

(LEVEL 1 Interpretation) A basic low-level stratigraphic interpretation of activity done by Phase Groups in sequence, including phasing and zoning, and based upon the primary records produced on site.

(A descriptive Stratigraphic Report, including a Phase Matrix (Phase Group Descriptions))

(LEVEL 0 Interpretation) The original primary records, based upon Stratification Theory and observations made on site.

(The Site Archive, including a Stratigraphic Matrix)

Figure 3: Level of interpretation.

1 THE DEVELOPMENT OF PROFESSIONAL ARCHAEOLOGY

The post-war redevelopment of British towns which started in the late 1950's and early 1960's created a new series of problems for many local town councils. This redevelopment and large-scale modernisation destroyed many historic buildings which had survived the war and the bombing and which were widely regarded as a part of a town's historical identity, and it also unearthed easily identifiable archaeological remains such as the Roman Temple of Mithras, found during building work in the City of London in 1954 (Jones 1984: 46), and this sweeping and occasionally highhanded redevelopment frequently led to both local and national public protest campaigns. The most notable of these conservation campaigns occurred in London in the early 1960's, and were organised by the Victorian Society and led by John Betjeman in an unsuccessful attempt to save both Euston Arch in 1961 and the Coal Exchange, Lower Thames Street in 1962, but which also succeeded in preventing the destruction and redevelopment of St Pancras Railway Station. This growing wave of public protest and indignation eventually allowed Duncan Sandys MP to introduce the *Civic Amenities Act 1967* which first established the concept of a Conservation Area (designated as an area of 'special architectural or historic interest' (Chapter 69: part 1)), and this was soon followed by the *Town and Country Planning Act 1968* which extended the protection of listed buildings to include their immediate surroundings (Pearce 2000). Both of these bills also covered the protection and preservation of archaeological remains as part of 'an area of historic interest', so developers could, in theory, have their planning permission refused on purely historical or archaeological grounds.

In an attempt to both appease public opinion and aid the developers a number of councils then started to appoint individual archaeologists to advise local planning departments, monitor redevelopment work, and organise and conduct volunteer excavations (Jones 1984). The more these City Archaeologists or County Archaeologists looked and monitored the more archaeological remains they found and the more assistants they needed to cope with the increasing rate of redevelopment, and this in turn led to the formation of emergency rescue excavation teams and eventually small professional archaeological units (Jones 1984).

Winchester established the first semi-professional archaeological unit in 1961 (the Winchester Excavation Committee 1962 - 1971, which led to the establishment of the Winchester Research Unit in 1968, and eventually the Winchester Archaeological Unit), and this was followed by the formation of other similar archaeological units throughout Britain in the early 1970's. Most of these archaeological units either developed with the help of local archaeological societies or were set up by local town councils, particularly in towns such as Lincoln, Chester, Exeter and Canterbury with a recognised heritage and an established tourist industry which the local councils wanted to promote and protect, and these town based archaeological units had responsibility for the archaeological remains within that town and its immediate surroundings. Other archaeological units had wider regional responsibilities, such as the Rescue Archaeology Group (set up in 1970 with regional responsibility for all of Wales, and then reorganised in 1975 into four separate Welsh Archaeological Trusts which also fulfilled the functions of City and County Archaeologists), and the Norfolk Archaeological Unit (set up in 1972, and originally based in a rural Victorian workhouse in Gressenhall). These archaeological units therefore operated independently at a local or regional level, and informally advised upon planning decisions, and undertook rescue excavations to record archaeological deposits before they were destroyed by developers, or on occasions salvage excavations which recorded archaeological deposits while they were being destroyed by the developers, as well as occasionally recording historic buildings.

Then in 1972 the site of Baynard's Castle near Blackfriars Bridge in London went badly wrong due to a lack of funds and facilities, and the following year the construction of an underground car park in Westminster's New Palace Yard started without archaeological advice or archaeological monitoring, so it appeared as if Parliament was acting in contradiction of its own archaeological policy (Gerrard 2003: 134; Jones 1984: 55 - 61). Both sites received considerable publicity in *The Guardian* newspaper, and this highlighted the need for both financial support and the establishment of a wider regulatory framework for rescue archaeology (Jones 1984). However, it was the large semi-professional archaeological projects which were generated by the second wave of motorway construction in the late 1960's and early 1970's, particularly the M4 and M5, that had had the greatest affect upon both public opinion and central government (Jones 1984: 62 - 70), and it was these large rural projects along with the establishment of RESCUE (The Trust for British Archaeology) in 1972 as a national pressure group that

finally ensured full government support and funding for professional rescue archaeology in 1973 (Jones 1984).

The majority of archaeological units were therefore originally set up by local or regional councils, but were funded by direct government grant from the Department of the Environment (which was established in 1970, and which took over all of the archaeological responsibilities of the earlier Ministry of Public Building and Works (1962 - 1970)), with time on site and sometimes additional funding provided by the developer, and occasionally direct government grants for post-excavation projects (Jones 1984: 143), however, as the number of archaeological projects grew in the mid to late 1970's some archaeological units also received additional local or regional council funding, usually linked to specific projects (Participant Interview 06: 6 - 7).

These funding arrangements meant that most archaeological units were associated with but operated independently of the local City or County Archaeologists, and usually consisted of a Senior Manager and a small 'core' team of full time professional archaeologists, which included field archaeologists, finds specialists, and occasionally a specialist draftsman or illustrator. These professional field archaeologists would usually take it in turns to be the Site Director or the Site Supervisor on individual archaeological projects, and when not supervising and completing their own projects they would be Site Assistants or Finds Supervisors on other projects, with each archaeological unit developing its own particular character and reputation based upon the attitudes and perceived competence of their core staff. Additional staff were then employed as Site Assistants on short-term contracts for specific projects from the pool of experienced professional archaeologists on the 'circuit'. These 'circuit diggers' moved from site to site gaining a wide range of practical skills and experience within a variety of different archaeological environments, and they therefore became the main means of disseminating new ideas and techniques between different archaeological units. Additional archaeological volunteers may also have participated in certain projects, and would have undertaken more routine tasks until they had gained sufficient practical experience to become Site Assistants themselves.

The vast majority of the archaeological projects undertaken by these professional archaeologists took place within a complex working environment created by the constantly changing relationships between planning laws, policy documents, developers, consultants, sub-contractors, local planning authorities, local councils, central government and occasionally the media, however, they all had to be completed within limits, limits of time and limits of money. The rest of this text therefore describes how those limits have changed over time and why, and what sort of decisions, choices and compromises the archaeologists have had to make in consequence, and how this has affected the archaeological reports and the Archaeological Publications that they have produced.

1.1 ARCHAEOLOGICAL EXCAVATION AND RECORDING

As each of these archaeological units operated within a specific geographical area they amassed a great deal of detailed local knowledge. They also developed more efficient excavation and recording techniques to suit their local working conditions, so regional archaeological units which operated mainly within rural areas developed techniques for rural excavations, and town based archaeological units which operated within urban areas developed techniques for urban excavations. This quickly produced a wide variety of specialised recording techniques, and an open environment in which new ideas were actively encouraged.

1.1.1 RURAL ARCHAEOLOGICAL PROJECTS (The early 1970's)

The main regional archaeological units which developed excavation and recording techniques for large rural archaeological projects were:

The Oxford Archaeological Unit (the OAU), set up in 1974, and had developed from two rescue excavation team that had worked in Oxford and Abingdon in the late 1960' and early 1970's. The Oxford Archaeological Unit then went on to undertake excavations in and around Oxford and Abingdon, and on the rural sites in the gravel pits of the upper Thames valley.

The Central Excavation Unit (the CEU), set up in 1975, and based in Fort Cumberland in Portsmouth. The Central Excavation Unit covered all of the areas in England not covered by other regional archaeological units and completed a number of large rural projects throughout mainly southern England, including extensive excavations in the gravel pits of the Nene valley, Northamptonshire.

The Trust for Wessex Archaeology (the TWA), which was based in Salisbury and covered mainly rural areas in Berkshire, Dorset, Hampshire, Isle of Wight and Wiltshire. It had developed from the Wessex Archaeological Committee set up in 1974, and became the last of the regional archaeological units created by the Department of the Environment in 1979, finally changing its name to the Trust for Wessex Archaeology in 1983.

Large rural archaeological projects resulted from major infrastructure or commercial construction projects, such as motorway, by-pass or ring road schemes, pipeline projects, large housing projects, industrial or commercial developments, and gravel extraction and quarrying activity. The size and complexity of these construction projects meant that they were usually planned well in advance, and would involve stripping and therefore archaeologically destroying large areas of previously undeveloped land. The archaeological stratigraphy in these areas usually consisted of dispersed negative features, such as ditches, pits or post holes cut into the underlying silts, gravel or chalk, and then truncated by later erosion or ploughing activity. This meant that the areas affected by the construction projects were normally available for archaeological excavation well in advance of construction work and the archaeological stratigraphy was likely to be relatively simple, however, the amount of money available was usually limited.

The archaeological methodology which developed to cope with these working conditions built upon existing excavation and recording techniques derived from rural research excavations in the 1950's and 1960's (Barker 1982; Collis 2001). This archaeological methodology relied upon large open area excavation, and identifying and understanding dispersed negative features and structures in plan. This involved using mechanical diggers to remove the topsoil or plough soil from large areas of the site, and then cleaning those areas by hand with archaeologists in trowel lines or hoe lines. The cleaned areas would then be photographed and pre-excavation Composite Plans would be produced. Following planning the dispersed negative features would be excavated and recorded, and selective segments would be excavation across inter-cutting ditches in an attempt to identify the order in which the ditches had originally been dug, and so establish some form of chronological sequence. Once the negative features had been excavated Sections or Profiles would be draw and post-excavation Composite Plans would be produced, any post-hole structures would also be re-cleaned and photographed, and then the machining would start on the next area. These Composite Plans where therefore used primarily to record specific stages in the excavation process.

This archaeological methodology required large numbers of archaeologist to do relatively routine tasks, however, as the amount of money available was usually limited large rural archaeological projects developed a hierarchical semi-professional staff structures, with a single Site Director and a number of professional Area Supervisors, along with a number of Site Assistants or specialist Site Planers and a specialist Finds Supervisor. The rest of the site staff would then consist of large numbers of relative inexperienced students and volunteers on basic subsistence and accommodation, and many large rural archaeological projects connected to regular gravel extraction and quarrying activity would be organised around an annual summer season to take advantage of both the weather and a student and volunteer work force (Jones 1984: 62 - 79). (A noted exception was the Mucking excavation (1965 to 1978) in Essex which continued through the winter (Participant Interview 18).) Most regional archaeological units developed their own recording systems to cope with the large numbers of relative inexperienced students and volunteers, and these usually involved some form of higher level description, so for example the students and volunteers would produce basic descriptions, and then Site Assistants or Area Supervisors would produce additional 'feature descriptions' for individual cuts and

multiple fills, or 'segment descriptions' for inter-cutting ditch sections or 'ditch descriptions' which followed the entire line of a single ditch to ensure that the chronological sequence remained consistent (Participant Interview 18: 44.00 - 46.00).

By the late 1970's this archaeological methodology had become known as Strip, Map and Record, and it still remains the standard methodology for large rural archaeological projects, although it now involves pre-excavation trial trenches, a less hierarchical recording system based roughly around the recording methodology of the Central Excavation Unit (Hammer 1992, cited in Chadwick 1998: 4; Participant Interview 06: 48 - 49), and a fully professional work force.

1.1.2 URBAN ARCHAEOLOGICAL PROJECTS (The early 1970's)

The main town based archaeological units which developed excavation and recording techniques for urban archaeological projects were:

The Winchester Archaeological Unit (the WAU), set up 1970 as an offshoot of the original Winchester Research Unit, and closely linked to the Southampton Archaeological Unit which developed from a rescue excavation team based at Southampton University in the late 1960' and early 1970's.

The Department of Urban Archaeology (the DUA), set up in London originally by the Guildhall Museum in 1972, and then integrated into the Museum of London in 1975 along with the Department of Greater London Archaeology (DGLA).

The York Archaeological Trust (YAT), set up in 1972 by a former member of the Southampton Archaeological Unit, and which developed close links with both the local planning department which provided advance warning of redevelopment projects and the local University of York (Jones 1984: 135).

Urban archaeological projects resulted from major redevelopment or construction projects, and initially depended upon the attitude of the local town councils and whether the local planning department included time for an archaeological excavation as a condition for the issuing of planning permission. In the early 1970's this tended to produce an all or nothing situation, with either a large long-term archaeological project (up to a year in some cases (Participant Interview 07: 25)) or no archaeological excavation, depending upon the size and location of the development and direct negotiations between the developers and the local planning department. Towns with a recognised heritage and an established tourist industry usually had a more sympathetic planning department, and so tended to insist upon more archaeological excavations and more time for those archaeological excavations to be completed. The archaeological stratigraphy in these locations was very complex and varied in depth depending upon the local topography and any later destruction such as cellars or basements, with deposits up to 6.00m deep in some areas of London around the River Walbrook or at Coppergate in York. The depth and complexity of urban archaeological stratigraphy meant that usually there was always pressure to fully complete urban excavations before construction started, and urban archaeological projects therefore

became an exercise in establishing priorities and making the most efficient and effective use of the limited resources available.

The archaeological methodology which initially developed to cope with these working conditions also built upon existing excavation and recording techniques, particularly those developed on the large research excavations undertaken by the Winchester Excavation Committee in the 1960's. This archaeological methodology also relied upon large open area excavations, and identifying and understanding archaeological deposits and structures in plan and sequence. This involved initial machining to remove all later disturbance, including basements, cellars, service runs and all other modern features, and then initial cleaning by shovel scraping and towelling. The cleaned areas would then be photographed and a pre-excavation Composite Plan would be produced clearly indicating areas of modern disturbance. Following initial planning individual deposits would be recorded and excavated starting with the removal or isolation of all visible negative features, such as rubbish pits or cess pits, this would leave a number of horizontal layers which should in theory form a 'phase of occupation', and these layers would then be cleaned and photographed, and a Composite Phase Plan would be produced (Harris 1989: 86 - 95; see also Participant Interview 08: 5 - 6). After planning these layers would then be carefully excavated, thus revealing more negative features and the next 'phase of occupation' underneath, so a form of stratigraphic sequence would be established by identifying a number of consecutive 'phases of occupation'. In theory this process would then proceed until all the archaeological stratigraphy had been removed, however, in practice certain 'phases of occupation' would receive more attention than others depending upon the time available. This frequently meant that post-medieval deposits were removed along with the modern disturbance, and if time ran out the earliest deposits would either be left in the ground or the area of excavation would be reduced.

This archaeological methodology also required large numbers of archaeologists, however, urban archaeological projects were entirely dependent upon both the agreement of the developers and the timing of a construction project, and could not therefore be organised in the same way as seasonal research excavations or rural excavations which relied upon a large number of students and volunteers. This meant that urban archaeological projects had to employ professional archaeologists who could work to deadlines, and the more

urban archaeological experience those individuals had the more likely they were to be employed. The large hierarchical semi-professional staff structures which had operated on earlier urban excavations were therefore gradually replaced by smaller teams of professional archaeologists with a single Site Supervisor to co-ordinate activity and a number of experienced Site Assistants who would both excavate and record deposits either independently or in small groups. Students and volunteers were still occasionally used, however, their role was restricted to finds processing and assisting Site Assistants until they had gained sufficient experience to become Site Assistants themselves.

These working conditions and employment policy meant that the professional archaeologists who worked on urban archaeological projects soon became urban archaeological specialists, and this contributed to the rapid development of urban archaeology.

1.1.3 THE DEVELOPMENT OF URBAN ARCHAEOLOGY (The mid 1970's to late 1970's)

By the mid 1970's it was becoming apparent that the standard urban archaeological methodology was far too simplistic for most urban archaeological sites, and that the amount and the complexity of urban archaeological stratigraphy made it practically impossible to accurately identify individual 'phases of occupation' during excavation. The resulting Composite Phase Plans therefore represented not a 'phase of occupation', but only a specific stage in the excavation process, and large numbers of individual deposits were either only partially planned or were not planned at all. This created considerable problems during post-excavation when the Plans and Sections were checked and when additional dating evidence was available from the finds, initial interpretations then had to be changed and more accurate 'phase of occupation' Plans had to be reconstructed from the fragmentary information available. The standard urban archaeological methodology therefore gradually changed, and greater emphasis was placed upon identifying archaeological deposits, not as 'phases of occupation', but as individual archaeological 'Contexts' which would then be recorded upon small 'overlay' Plans that fitted in between the larger 'phase of occupation' Plans (Participant Interview 07: 6 - 7). This increased the overall speed of excavation by allowing archaeologists to record and remove individual deposits without having to worry about the next 'phase of occupation', and it also made it possible to reconstruct a form of stratigraphic sequence and so identify more carefully considered 'phases of occupation' during post-excavation, although it did also mean that most urban excavations were now no longer excavated 'in phase'.

By the mid 1970's it was also becoming apparent that large urban archaeological projects could not be used as representative samples of wider areas, and there was a growing realisation that every site was different and important, and that many smaller redevelopment projects were being missed (Jones, 1984: 80 - 96). Large urban archaeological projects were arranged by mutual agreement and consent, usually with municipal or large institutional developers who were able to provide time for archaeological excavations in exchange for favourable publicity. However, the growing realisation that every site had to be examined meant dealing with less amenable and more commercially minded developers who were reluctant to have large long-term archaeological excavations holding up construction work.

This situation was partially clarified following the *Hoveringham Gravels Ltd. vs Secretary of State for the Environment* court case in 1975. The gravel company, Hoveringham Gravels Ltd. attempted to claim composition after a preservation order had been placed on Berry Mound Camp, Worcestershire, but the court ‘held that, because of the Camp’s archaeological importance, there was no reasonable prospect that the company would ever have been able to obtain planning permission to develop the site’ (<http://www.scotcourts.gov.uk/opinions/2005CSIH73.html> (accessed 2013)), so there were no ‘injurious affects’ upon the company’s interests as a result of the preservation order, and by implication this also confirmed that local planning departments could refuse planning permission on purely archaeological grounds (Participant Interview 05: 12). Many archaeological units therefore started to appoint individual archaeologists to act as local Archaeological Monitors (occasionally referred to as Planning Officers) who would check new planning applications and advise local planning departments upon the ‘archaeological importance’ of particular sites or locations and whether some form of archaeological excavation should take place (Participant Interview 05: 24 - 25), and though negotiations between developers and local planning departments could become more acrimonious, the number of smaller sites gradually increased.

In Winchester and York the high public profile of earlier excavation and the then ongoing Coppergate excavation in York meant that their planning departments were able to insist upon adequate time for open area excavations, however, in other towns and cities urban excavations usually had strict time constraints and occasionally had restricted areas of excavation.

In the City of London the rate of redevelopment was increasing with the construction of mainly speculative office blocks. The construction cost of these office blocks was extremely high, but the developers expected to make equally high returns from office rentals. To realise these expected returns the developers had to limit construction time as much as possible, thus construction projects were planned in meticulous detail, and the developers could expect to lose large amounts of money if archaeologists held up construction for even a short period of time. Since 1974 The Corporation of the City of London had ensured that archaeological investigations were carried out in advance of all redevelopment work (Jones 1984: 130), so there was no way of avoiding an archaeological

excavation, however, the developers soon realised that it was more cost effective to provide the archaeologists with additional funds for extra staff, and so reduce the amount of time those archaeologists were on site (Participant Interview 14: 23.00). This produced unique local working conditions in which the amount of time on site was usually very limited, but funding was less of a problem (Aitchison 2012: 63).

Both the growing number and complexity of urban archaeological projects and the growing time constraints placed upon them by the developers also highlighted the need for a more systematic method of recording the specific information required to interpret urban archaeological stratigraphy during post-excavation. This led to the gradual introduction of various types of pre-printed recording cards or 'Context Sheets', which replaced Site Notebooks as the main means of preserving a written description (Participant Interview 18: 12.00). They were first developed on the Wroxeter research excavations in the early to mid 1970's (Barker 1982), but also appear to have been developed independently by Museum of London (Department of Urban Archaeology) on the General Post Office excavation in 1975 (Spence 1993: 25; see also Participant Interview 07: 6 - 20). The use of these numbered Context Sheets ensured that all the relevant information from each and every Context was recorded and that there was a level of consistency between the recording of individual archaeologists, and they also established a clear physical division between the recording of specific information on-site and the later interpretation of that information. By the late 1970's most archaeological units were using individual pre-printed forms or Sheets to record individual archaeological Contexts, including specialist Masonry Sheets, Timber Sheets and Skeleton Sheets.

Most archaeological units also developed their own distinct Documentation Systems designed to explain how to fill out these Context Sheets and maintain the standard of documentation, as well as ensuring continuity of recording between both individual archaeologists and different archaeological projects. These Documentation Systems developed to control all aspects of the recording procedure, and a number were eventually published or at least disseminated in the form of archaeological unit site manuals.

These improvements in the standard and consistency of on-site recording also led to a number of significant advances in recording methodology. The first of these was the

Matrix System which was developed by the Winchester Archaeological Unit in the mid 1970's, and which was then published as *Principles of Archaeological Stratigraphy* by Edward Harris in 1979. This system used a form of two dimensional flowchart or Stratigraphic Matrix to depict the sequence in which individual Contexts were deposited, and this enabled the archaeologist to visualise and manipulate the complex stratigraphic sequences encountered on urban excavations (Harris 1989; Harris, Brown and Brown 1993; Participant Interview 07: 9). This was initially presented as a post-excavational technique to be used during interpretation, however, over the years it has changed and been improved, and eventually became the main method of both recording and interpreting complex archaeological stratigraphy.

Around the same time the Museum of London (Department of Urban Archaeology) used the second stage of the General Post Office excavation (GPO75) to test and develop a Single Context Recording System (Spence 1993; Participant Interview 07; see also Harris 2013).

The General Post Office excavation started in 1975, and was grant fund by the Department of the Environment and completed by 30 to 40 archaeologists from the Museum of London (Department of Urban Archaeology) in two separate stages in about a year on a derelict bomb site which had previously been part of the General Post Office building on King Edward Street, near St Paul's Cathedral. The first stage of the excavation consisted of three main elements, a large north/south trench which ran the length of the site, a northern area by Angel Street (the northern boundary of the site), and a larger southern area about 50.0m by 30.0m north/south on the corner of Newgate Street (the southern boundary of the site) and King Edwards Street (the western boundary of the site) which contained walls from the early medieval church of St Nicholas Shambles and over 200 medieval skeletons cut into an earlier 'dark earth' deposit (<http://blog.museumoflondon.org.uk/laarc-vip7-what-is-gpo75/> (accessed 2014); <http://archive.museumoflondon.org.uk/laarc/catalogue/siteinfo.asp?id=1851&code=GPO75> (accessed 2014); http://www.hobleysheroes.org.uk/Ken_Dash_Photos.html (accessed 2014)). The second stage of the excavation consisted of a 25.0m by 20.0m north/south area in the south/west corner of the site which continued the excavation beneath the church and the 'dark earth' deposit, and this trench contained evidence of a number of 1st

and 2nd century Roman buildings which were excavated down to the top of natural deposits, giving a total of about 2.0m of urban archaeological stratigraphy below basement levels (Participant Interview 07: 10 - 11, 25). The complex urban archaeological stratigraphy encountered in this second stage had initially been excavated by using slots and then relying upon Sections to establish the stratigraphic sequence, however, this excavation methodology proved ineffective and it was therefore changed to open area excavation and identifying, recording and excavating each individual Context in plan (Participant Interview 07: 8 - 11).

Each Context was therefore identified and recorded on individual Context Sheets, and then specific Contexts (walls, layers and cuts) were planed and levelled in isolation at their maximum extent (once all overlying deposits had been removed), and this became the basic planning policy of drawing only one Context on every Plan, or Single Context Planning (fills were not planed because they were contained within cuts, and Section were only used across certain cut features to record the fills (Participant Interview 07: 20)) (Westerman 1994). These Single Context Plans were drawn on pre-printed permatrace within a 5.0m by 5.0m planning square, so if a particular Context extended outside a specific 5.0m by 5.0m planning square then that Context would be recorded on two or more planning sheets (Participant Interview 07: 13 - 14). The stratigraphic sequence was then reconstructed by overlaying Single Context Plans and establishing the sequential relationships between individual Contexts within each 5.0m by 5.0m planning square, and then using these sequential relationships to produce a Plan Matrix (a mini Stratigraphic Matrix for that specific 5.0m by 5.0m planning square) (Participant Interview 07: 13 - 18). These individual Plan Matrixes were then merged and tied together by removing redundant sequential relationships, and so eventually producing the final Stratigraphic Matrix (Participant Interview 07: 14 - 19).

This was the first large scale use of the Single Context Recording System (Participant Interview 07: 5) and it proved to be far more successful than either Composite Planning or slots and Sections at establishing a stratigraphic sequence (Participant Interview 07: 20 - 21). It also allowed a large number of archaeologists to identify, record and excavate individual Contexts at the same time and then co-ordinate the records that they had produced (Participant Interview 07: 6 - 7), and it was therefore adopted by the Museum of

London (Department of Urban Archaeology) as the basis for their Documentation System and was used on all their later excavations.

The local working conditions that were developing in London in the mid to late 1970's were amongst the most complicated in Britain, not only from an archaeological perspective, but also due to the organisational and logistical problems caused by having to complete an archaeological excavation as part of a major urban construction project. In these circumstances funding may not have been a major problem, but time on site was, and many sites therefore became pre-demolition excavation in cellars and basements and then a very rapid post-demolition excavation involving large numbers of professional archaeologists, followed by a relatively long post-excavation project to tie all the records together. The Documentation System that developed in these circumstances was therefore one which placed emphasis upon quick and accurate planning and recording on site, as in theory the stratigraphic sequence could be reconstructed during post-excavation by overlaying the Single Context Plans and establishing the sequential relationships between individual Contexts (Participant Interview 07: 13).

In practice it was never quite that simple or that easy. As each Context was planed and levelled on its own and in isolation, it was perfectly possible to identify, record and excavate a Context without having to considering what that Context represented, how it fitted in with the rest of the archaeological stratigraphy or whether it was a real individual Context or not, and as all sequential relationships were then established, not from direct observations made on site, but by overlaying the Single Context Plans (Participant Interview 07: 18 - 19) any slight error in planning or levelling could create either an incorrect stratigraphic sequence which corresponded to the Plans but not to the original archaeological stratigraphy, or two or more sets of contradictory Plans and no way of telling where the error may have occurred, especially if the sequential relationships were established during post-excavation. For the Single Context Recording System to work it was therefore necessary for every Single Context Plan to be 100% accurate every time as the stratigraphic sequence was only as accurate as the original planning, and this was particularly true when trying to establish 'abuts' relationships and the top of a construction cut (Participant Interview 07: 23 - 24), as any small mistakes in locating individual Plans could create a completely different stratigraphic sequence. The 5.0m by 5.0m planning

squares also tended to divide large sites up into arbitrary planning areas, frequently excavated by individual archaeologists in isolation, and the identification and planning of individual Contexts in isolation, along with the use of 5.0m by 5.0m planning squares and Plan Matrixes also tended to produce large, complex and unstructured Stratigraphic Matrixes. However, in 1980 the Single Context Recording System (also referred to as Single Context Planning) was published in the original *Department of Urban Archaeology Site Manual*, and the later editions, particularly the *DUA Site Manual* published in 1990, and the red ring-binder *MoLAS Site Manual* published in 1994, then became the basis for the Documentation Systems used on most urban excavations.

In the mid to late 1970's there was also sufficient additional funds available, particularly in London and York, to develop many of the logistical techniques which are now routinely used on urban archaeological excavations. These included the use of shoring and hoists to excavate deep trenches safely and efficiently, the use of lighting to excavate sites inside standing buildings, and perhaps most significantly the techniques developed for dealing with complex waterfront excavations and for recording waterlogged timbers (see 'On the Waterfront' (1984) BBC Two Television). The amount of organic deposits recovered from waterlogged sites in the city of York eventually led to the establishment of a specialist environmental laboratory at the University of York (Jones 1984: 135). These advances in excavational methodology extended both the range of archaeological excavations and the type of deposits covered by the Documentation Systems, as well as the type of sites that could be excavated.

By 1979 publicity and public pressure finally had an effect, and in April 1979 one of the last acts of the then Labour government was to pass the *Ancient Monuments and Archaeological Areas Act 1979*.

Department of the Environment (1979) *Ancient Monuments and Archaeological Areas Act 1979*. London: Department of the Environment.

This Act consolidated earlier archaeological legislation, and under Part II of the Act the historic centres of specific towns or cities could be designated as Areas of Archaeological Importance (AM and AA Act 1979: paragraph 33). This would require developers to

notify the local Archaeological Monitors six weeks in advance of undertaking any work within the Area of Archaeological Importance, regardless of whether they requiring planning permission or not (AM and AA Act 1979: paragraph 35.1). The Archaeological Monitors could then serve an operations notice, which would permit archaeologists an 18 week period for archaeological investigation following either the end of the six week period or the clearance of the site (AM and AA Act 1979: paragraph 38.4), so in effect the local Archaeological Monitor could block work on a site for a six month period. This gave local archaeological units the time they needed to organise and undertake preliminary archaeological excavations with the possibility of negotiating additional time if significant archaeological remains were uncovered. However, Part II of the Act was never enacted in Wales (Participant Interview 05: 8) or Scotland, and under the changing political and commercial conditions of the early 1980's only Canterbury, Chester, Exeter, Hereford and York applied to have their historic city centres classified as Areas of Archaeological Importance (see also Jones 1984: 151).

In 1980 the changing political and commercial conditions also affected the Department of the Environment funding, which switched from the direct annual funding of individual archaeological units (occasionally termed core funding) to the grant funding of specific archaeological projects of limited scope, duration and cost (Andrews and Thomas 1995: 185; Aitchison 2012: 63). This allowed the Department of the Environment to exercise more control over both total spending and the management of individual archaeological projects, as well as permitting them to allocate funds to archaeological projects which 'represented value for money in academic terms' (Andrews and Thomas 1995: 185; see also Participant Interview 09: 11).

1.1.4 THE CONSOLIDATION OF URBAN ARCHAEOLOGY (The 1980's)

By the early 1980's most of the excavation and recording techniques developed in the mid to late 1970's had become accepted as standard practice, and were incorporated into the standard urban archaeological methodology. However, most archaeological units still developed their own Documentation Systems specifically designed and adapted to suit their own local working conditions. These differences included variations in both the structure and application of the Documentation System, and most noticeably in the design and layout of the Context Sheets. This included the specific information recorded on the Context Sheets, the amount of space allocated on the Sheets for each entry, whether the recording was done as multiple choice or free text, and the system of cross referencing Plans, Sections, photos and finds, as well as more fundamental differences in how the Sheets were actually used. So for example, the Winchester Archaeological Unit defined individual Contexts on stratigraphic descriptions (Layer Sheets / Fill Sheets / Cut Sheets), whereas the Museum of London (Department of Urban Archaeology) defined individual Contexts on physical descriptions (Deposit Sheets / Cut Sheets) (Participant Interview 19: 56.00), and this difference may be explained by different local working conditions and the WAU's emphasis upon establishing the stratigraphic sequence and the DUA's emphasis upon the speed of recording. York Archaeological Trust adopted the Single Context Recording System in 1983 (Participant Interview 09: 5 - 6), and their Context Sheets tended to be simpler but contained more written stratigraphic information (Pearson and Williams 1993: figure 6.1).

The Winchester Archaeological Unit also grouped individual Contexts (which were increasingly referred to as Stratigraphic Units) into 'Features' to link all the fills from the same cut. This recording technique had developed on earlier rural excavations, and provided an additional higher level of recording with separate 'Feature Sheets' filled out by the Site Supervisor on site. By the mid 1980's the Feature Sheets had been dropped, however, this had developed into grouping a number of closely related Contexts (or Stratigraphic Units), such as all the fills from a single cut or the cut, foundation and upstanding masonry of a single wall into a single Stratigraphic Events on site, and then placing those individual Stratigraphic Unit numbers within a single box on the Stratigraphic Matrix (Participant Interview 19: 56.30). This two stage process (first identifying individual Stratigraphic Units and their relationships within a Stratigraphic

Event, and then identifying the relationships between individual Stratigraphic Events) lessened the overall number of variables and sequential relationships, and so made it far easier to structure and construct a running Stratigraphic Matrix which established the stratigraphic sequence on site during the excavation (Participant Interview 19: 56.45).

The Winchester Archaeological Unit had also developed a Multi Context Recording System in which every Context was still planned and levelled at its maximum extent (once all overlying deposits had been removed), but more than one Context could appear on the same Plan (providing they did not overlap), and planning conventions were then used to indicate the physical and sequential relationships with the surrounding Contexts (Participant Interview 19: 57.20). This included clearly indicating both 'cut by' and 'abuts' physical relationships which eliminated any problems caused by slight planning errors, as well as providing a check on the sequential relationships shown on the Stratigraphic Matrix (Participant Interview 19: 58.10). The Winchester Archaeological Unit also made more use of Sections, again to provide a check on the physical and sequential relationships shown on the Stratigraphic Matrix.

Various forms of 'Finds Sheets' were also occasionally used either to record the recovery of artefacts and ecofacts from a particular context, or to record the recovery of particular types of evidence, such as environmental samples. This information could also be recorded either on existing Context Sheets as bulk finds, specific finds (also referred to as small finds), bulk samples and specific samples, or on separate finds lists or registers, such as a small finds register or a samples register. Environmental samples usually had separate recording Sheets which were then used during processing, however, the complexity of these Sheets could also create problems and the prospect of having to fill out a particularly comprehensive 'Environmental Sample Sheet' could frequently discourage the taking of samples.

The use of these Documentation Systems allowed each archaeologist direct control over the planning, recording and excavation of individual Contexts (or Stratigraphic Units), and this allowed individual archaeologists to work either independently or in small groups. This then reinforced both the need for and the employment of experienced professional field archaeologists, and the non-hierarchical staff structure on urban archaeological

excavations, so other than a Site Supervisor (or Senior Archaeologist in the Museum of London (Department of Urban Archaeology)) to co-ordinate activity, all other work on site was undertaken by experienced Site Assistants (or Field Archaeologists in the Museum of London (Department of Urban Archaeology)) (Spence 1993), with an occasionally on-site Finds Supervisor on larger archaeological projects to document and process the recovered artefacts and ecofacts.

Another development which had significant long-term consequences was the introduction of Job Creation Schemes (JCS) in the late 1970's and the Manpower Services Commission (the MSC) employment schemes in the early to mid 1980's (Participant Interview 06: 7 - 8). These were government backed employment projects designed to lower unemployment figures by forcing the long-term unemployed (defined as those aged 18 - 24 who had been unemployed for more than six months and those aged 25 and over who had been unemployed for more than a year) onto a one year long Community Program (a CP), including working for archaeological units on archaeological excavations. This introduced archaeological excavation to a large number of people from a variety of backgrounds who would not otherwise have become involved in archaeology, and it also provided them with an element of on the job training in practical field archaeology. Inevitably a lot of these individuals were not suited to archaeological excavation, however, a significant number eventually became professional field archaeologists after their projects had finished simply because they were very good 'natural' archaeologists.

The number of individuals employed on these archaeological Manpower Services Commission schemes grew steadily throughout the early to mid 1980's, with some sites being designated as grant/developer funded projects staffed by professional 'circuit diggers' on short-term contracts and with additional archaeological volunteers depending upon the type of project, and with others sites being designated as long-term MSC projects (where the developer was able to provide long-term access to the area) and these may have also include MSC post-excavation projects run at the same time as the excavation (Participant Interview 01: 4; Participant Interview 06: 7 - 11).

‘By 1986 the MSC provided funding of £4.8 million for archaeology, compared to £5.9 million from the Historic Buildings and Monuments Commission (Crump 1987), and in September 1986 there were 1,790 places on archaeological projects through the CPs.’

(Everill 2009: 28)

However, between 1987 and 1988 government policy changed and the Manpower Services Commission started to lose various functions, and first it stopped providing additional project funding for equipment and office facilities, and then by the end of 1988 it had stopped funding all archaeological projects and archaeological units had to look for other methods of funding archaeological excavations (Participant Interview 01: 4; Participant Interview 05: 10 - 11).

One of the side effects of the Manpower Services Commission schemes was that it changed the type of archaeologist that were being employed by archaeological units. The employment of professional field archaeologists at this time tended to be based upon good references and the amount of practical experience an individual had on site, and as former members of the Manpower Services Commission schemes were known and had at least one year's digging experience they were frequently offered jobs before much better qualified but much less experienced archaeological graduates.

This tendency then became self-reinforcing as those with more practical experience were given jobs, and those with jobs gained more practical experience. The former members of the Manpower Services Commission schemes therefore went on to form a large proportion of the ‘circuit diggers’, and eventually they became members of the core staff of many archaeological units, with the Museum of London in particular employing large numbers of experienced ex-MSC staff in the building boom that followed the deregulation of the financial markets in 1987.

This employment policy was one of the many factors which contributed to an increasing divide between academic research archaeology and professional rescue archaeology (particularly urban archaeology) throughout the late 1970’s and 1980’s. Although

research and rescue excavations used similar methodologies, both branches of the profession developed in different directions as a result of operating in different circumstances and with different objectives and priorities, and in many ways this divergence also became a separation of theoretical academic archaeology from practical field archaeology. As the academic Richard Bradley described it in an article in 2006:

‘For at least forty years it seemed as though there are two distinct traditions in field archaeology: one devoted to academic research and the other to the documentation of antiquities threatened with destruction. Each is undertaken by different people, funded by different sponsors and their results are disseminated in different ways. The contrasts between them seem so pervasive that it is tempting to describe them as two cultures.’

(Bradley 2006: 1)

The primary aims of most academic research excavations were to provide a training exercise for students, and to produce some form of academic publication written by the Site Director as a method of gaining academic credit and furthering an academic career, with a ‘good publication’ establishing both the significance of a particular site and the academic reputation of a particular individual. The main priority was therefore the completion of an archaeological interpretation and a traditional academic Archaeological Publication, so the standard of the archaeological recording and the final Site Archive may then have become of secondary importance. This also produced a general tendency to see each archaeological excavation as a single self contained experiment with specific short-term aims and objectives, which could make it difficult to re-interpret the results of an academic research excavation in the light of additional archaeological information or future archaeological discoveries.

The primary aim of professional rescue excavations was to ensure that as much of the remaining archaeological stratigraphy was excavated and accurately recorded as possible before it was destroyed by the developer. The standard of the archaeological records completed on site was therefore the main priority along with the production and long-term preservation of an ordered, indexed and internally consistent Site Archive, so the completion of an archaeological interpretation and an academic publication may then have

become of secondary importance, as in theory this was dependent only upon the existing archaeological records and so could be done at any time in the future. This also produced a general tendency to see all archaeological excavation as a small part of a bigger picture with a long-term commitment to recording for posterity.

These differing aims and objectives then effected not only the archaeological recording produced on site, but also the type of archaeological documentation produced during post-excavation, so although both academic archaeology and professional archaeology used the same traditional academic approach to archaeological publication, over time the way those academic principles were applied in practice within professional archaeology gradually changed.

1.2 ARCHAEOLOGICAL POST-EXCAVATION AND INTERPRETATION

The traditional academic approach to archaeological publication can best be summarised by the following introductory paragraph:

‘Since the late nineteenth century, publication has been seen as an integral part of the process of archaeological excavation. Because it is destructive, excavation has been considered to place an inescapable duty on those who do it to restore what has been destroyed through a published record which is accessible to others, now and tomorrow. Underlying this notion of ‘publication as preservation’ is the ideal that it should be possible to reconstruct an excavated site from its records, and consequently reinterpret it.’

(Jones 2001: section 1.1)

This traditional academic approach to archaeological publication thus established both the basic principle of ‘preservation by publication’, and the basic division between the objective recording of archaeological evidence done on site and the subjective interpretation of that archaeological evidence done during post-excavation.

The structure of a traditional academic Archaeological Publication therefore also reflected this basic division by separating an objective *description* of the archaeological evidence, from a subjective *interpretation* of the archaeological evidence presented in the *description*, so the structure of an Archaeological Publication was seen as first presenting the evidence, and then presenting a possible interpretation of that evidence.

An element of academic credibility was introduced by ensuring that these separate sections were mutually supportive, so the *interpretation* should fully explain the archaeological evidence presented in the *description*, and the *description* should present sufficient archaeological evidence to justify the *interpretation*, and it should then be possible to check the validity of individual interpretations by referring back to the description of the relevant archaeological evidence. Therefore, in theory, if the archaeological records produced on site were an accurate reflection of the archaeological

evidence, and the *description* was an accurate reflection of the archaeological records, then the *interpretation* should be a valid interpretation of the archaeological evidence. This could best be done by presenting an accurate summary of the archaeological records as the *description*, and if the archaeological records were presented *as* the *description* then it would also be possible to consider alternative interpretations, and if necessary reinterpret the archaeological evidence from the information presented within the Archaeological Publication. This should indicate not only the interlinked structure of a traditional academic Archaeological Publication, but also the fundamental importance of the original archaeological records, ‘if it was not recorded, then it never happened’.

THE TRADITIONAL APPROACH TO ARCHAEOLOGICAL PUBLICATION

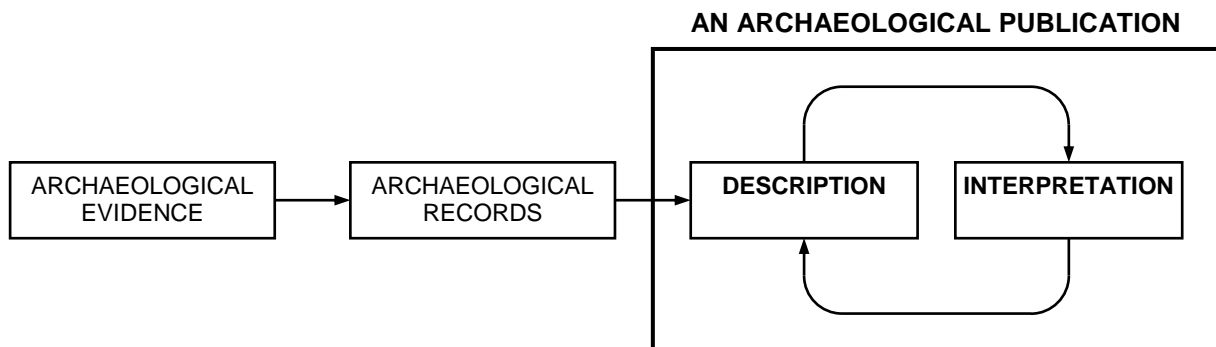


Figure 4: The traditional approach to archaeological publication.

Although the actual form and presentation of individual Archaeological Publications would have varied, most traditional Archaeological Publications would have followed the same basic structure:

- 1 **SUMMARY**, intended to outline the nature of the site and the significance of the findings, so a reader could easily evaluate the relevance of the publication to their particular area of interest.
- 2 **INTRODUCTION**, intended to set the scene by providing a detailed background to the excavation, including the geographical location of the site, the topology and underlying sedimentology, and the known historical development of the area along with the results of any previous excavations.
- 3 **DESCRIPTION**, intended to provide a full description of both the structural and the stratigraphic evidence recorded on the site in stratigraphic order starting with the earliest deposits and including Plans, Section and occupationally photographs, as well as the location of specific finds.

This section was considered as a way of publishing the archaeological records produced on site.

- 4 **INTERPRETATION**, (or DISCUSSION), intended to provide the Site Director's or Site Supervisor's personal interpretation of the archaeological evidence, including a limited number of possible historic dates for specific structures or deposits, usually presented within a separate section.

'This section was usually considered to be of less value than the core description of the site, as factual description was assumed to be of more enduring importance' than current interpretation (Jones 2001: section 2.2.1).

- 5 **FINDS CATALOGUES**, (or APPENDICES), intended to provide a full description of all the artefacts and ecofacts recovered from the site.

These artefacts and ecofacts would be divided into specific categories based upon their material or mode of production, such as pottery, animal bone, human bone or coins. A separate catalogue would then be compiled for each category by the Finds Supervisor, and in certain circumstances a short report would be obtained from an appropriate Finds Specialists.

(adapted from (Jones 2001: section 2.2.1))

(In an attempt to both analyse and explain changes in the structure of Archaeological Publications it is necessary to distinguish between different consecutive levels of interpretation, each of which would take into account different evidence and have a different burden of proof, that is the amount and quality of evidence that an archaeologist making a specific interpretation is obliged to both provide and present in support of that specific interpretation. For detailed descriptions of these various levels of interpretation see figure 3.)

Although most Archaeological Publications are a combination of different levels of interpretation, a traditional academic Archaeological Publication would have been a low-level interpretation with a high burden of proof. So the *descriptions* presented within the Description Section would have been very close to the original archaeological records, a (LEVEL 0 interpretation), and the *interpretations* presented within the Interpretation Section would have avoided speculation and been restricted to both the area of excavation

and what could be definitively proven by direct reference to the original archaeological records, basically a (LEVEL 1 interpretation) with a limited number of possible historic dates presented as a separate section (see figure 3). This was done because to a certain extent the readers were expected to be fellow archaeologists, competent enough to both understand the Description Section, and produce their own interpretations, which they could then compare with the *interpretations* presented within the Interpretation Section. The limited number of possible historic dates would have been presented within a separate section as dating archaeological deposits was seen as a less reliable form of interpretation, and integrating these possible historic dates into the rest of the text would have restricted future re-interpretation. Therefore, in theory, it would be possible to re-consider or re-adjust the dating without having to change the rest of the publication.

The actual post-excavation project needed to produce this form of Archaeological Publication would usually have consisted of four basic stages (see figure 2):

1 Checking the archaeological records and compiling the Description Section.

The first part of the post-excavation project would have involved checking all the archaeological records to ensure that there were no errors, omissions or inconsistencies. It would then have been possible for the Site Director or the Site Supervisor to compile the Description Section from these archaeological records, starting with the earliest deposits. (The Introduction Section may already have existed as background information, so that section may only have required checking and possibly updating.)

2 Identifying the finds and producing individual Finds Catalogues.

At roughly the same time all the artefacts and ecofacts recovered from the site would have been processed and identified by the site Finds Supervisor, and a full Finds Catalogue along with a short discussion section would then have been compiled for each particular category of artefact or ecofact. In certain circumstances a short Specialist Finds Reports would also have been obtained from an appropriate Finds Specialists on either a specific object or a particular category of finds, such as coins or human bone, and these specialist reports would then have been included within the other Finds Catalogues.

3 Integrating the Finds Catalogues with the Description Section.

The Site Director or the Site Supervisor would then integrate the Finds Catalogues with the Description Section to form a possible interpretation, and this would have included considering possible historic dates.

4 Complete the Interpretation Section.

The possible interpretation would then have been presented as a number of consecutive 'phases of occupation' or 'phases of activity' in the Interpretation Section, along with a limited number of possible historic dates. A considerable amount of checking would then have been done to ensure that the Description Section was internally consistent, and that it also corresponded with the Interpretation Section, and finally the Summary Section would have been completed at the end of the post-excavation project.

The structure of a traditional academic Archaeological Publication and the four basic stages of the post-excavation process were therefore the same, so the completion of the post-excavation process automatically produced the Archaeological Publication, and the Archaeological Publication automatically described and presented the post-excavation process.

The Archaeological Publication was also the personal responsibility of the Site Director or the Site Supervisor, and was considered as both a personal obligation, and a method of gaining academic credit and furthering an academic career, with a 'good publication' establishing both the significance of a particular site, and the archaeological reputation of a particular individual. These personal gains and benefits perpetuated the traditional assumption 'that 'writing up' was a gentlemanly pursuit for which no one would necessarily be paid' (Jones 2001: section 2.3.1), so post-excavation projects were constantly under-funded, even though the actual printing and publication costs may have been covered by local or regional archaeological journals or some form of publishing grant.

1.2.1 THE ESTABLISHMENT OF PRESERVATION BY PUBLICATION (The early 1970's to mid 1970's)

This was the approach that was adopted by the professional archaeological units in the early 1970's, many of which had originally been set up by individuals who had left the early stages of academic careers (Jones 1984). Each archaeological project would create a post-excavation project, the completion of which would be seen as the personal responsibility of the Site Director or Site Supervisor, and that individual would then produce an Archaeological Report which would be published either as an archaeological monograph for large archaeological projects or as an article in a local or regional archaeological journal, basically 'one project, one author, one publication', along with the principle of 'preservation by publication'. This traditional academic approach therefore considered archaeological publication as both a personal obligation and a personal opportunity, undertaken by the Site Director or Site Supervisor for professional gain or academic credit, and with the end objective being a 'good publication' which not only showed the results of the excavation, but which also enhanced the reputation of both the author and the archaeological unit.

This was the initial objective, however, throughout the early to mid 1970's there was a rapid increase in both the number of sites excavated, and the complexity of the archaeological records produced. This in turn led to a corresponding increase in the size and complexity of post-excavation projects, and particularly large urban post-excavation projects. Some of these large urban excavations produced thousands of Context numbers, each of which had to be checked and described individually in the final publication (Participant Interview 07: 34 - 36) (the Lower Brook Street site in Winchester excavated in various stages from 1965 to 1971 eventually produced over 10,000 individual Contexts (Harris 1989: 146), and GPO75 in London produced over 20,000 individual Contexts (Participant Interview 07: 14)), and this inevitably led to delays in publication.

In part these delays were due to the fact that post-excavation and publication was seen as the personal responsibility of the Site Director or Site Supervisor, and unlike archaeological rescue excavation, archaeological post-excavation and publication could be undertaken at any time as it was dependent only upon the existing archaeological records (Participant Interview 06: 10). This allowed the Site Director or Site Supervisor to postpone the start of post-excavation projects either for short periods of time if

neighbouring areas were due to be redeveloped or if additional people were required on site in an emergency, or even indefinitely if post-excavation projects were being stockpiled to employ core staff when no excavation work was available (Participant Interview 08: 7 - 8). However, given a choice many Site Directors or Site Supervisors simply preferred to be working out on site rather than working on their own in an office, although those same individuals still wanted the academic credit for the archaeological projects they had directed or supervised. Regardless of whether post-excavation projects were being delayed or were being stockpiled the end result was still the same, and this became the start of the ever present 'publication backlog'.

The amount of time needed to complete a post-excavation project also increased due to the growing complexity of the archaeological records, the amount of material being recovered and the need to proceed to full publication, and this also created a number of project management problems. Post-excavation projects were seen as a fundamental part of the archaeological process but were organised and funded separately from the original excavation, and as Site Directors and Site Supervisors were permanent core staff their time was allocated not as part of a specific budget, but as part of a weekly work schedule (Participant Interview 06: 7; Participant Interview 10: 12). Many post-excavation projects therefore started without a proper budget or an agreed completion date, and large post-excavation projects could then drag on for years without reaching any definite conclusion. The same applied to finds processing and cataloguing which would simply start and then proceed until completion, however, the increase in the variety of material recovered also led to an increase in the number of Specialist Finds Reports required from external Finds Specialists, and that did have a direct effect upon post-excavation costs (Participant Interview 08: 8 - 9). Eventually additional grant funding would have to be applied for from central government (Participant Interview 06: 6), and if that failed many post-excavation projects simply ground to a halt when priorities changed or when cut backs occurred, and this was not considered to be a major problem as it was assumed that post-excavation projects could always be re-started when more money became available, and of course in many cases things moved on and that never happened.

However, a more obvious problem was the increasing cost of publication. The basic principle of 'preservation by publication' meant that the size of the final publication also

increased, and this had a direct effect upon the publication costs which were covered by local or regional archaeological journals or direct publishing grants. So the rapid increase in the size and number of Archaeological Reports meant that archaeological journals had to either expand and publish larger editions which many could not afford to do, or start to become more selective over which reports went into the next issue, and this could then lead to further delays in the publication of finished reports, which in turn added to the publication backlog.

(A notable exception to this traditional approach to archaeological publication was the fascicle publication system, which was developed by the York Archaeological Trust and was used from 1973 onward to produce nineteen separate volumes entitled The Archaeology of York series. This system was intended to both aid archaeological research and speed up the publication of archaeological information (particularly finds information) from large archaeological excavations by grouping together specific aspects of either historical or archaeological research from a number of different archaeological sites within a single publication, so the series contains volumes on specific archaeological projects, as well as volumes on particularly artefact types done by specific period, such as *Finds from Anglo-Scandinavian York*, *Finds from Medieval York* and *Leather and Leatherworking in Anglo-Scandinavian and Medieval York* (Participant Interview 08: 12 - 14; Participant Interview 09: 4 - 5, 13 - 16, 19 - 22). Similar fascicle publication systems were also initially adopted in Lincoln and Perth, however, they were gradually phased out and replaced by the more traditional archaeological project based publication system.)

1.2.2 THE DEVELOPMENT OF PRESERVATION BY RECORD (The late 1970's to early 1980's)

In an attempt to address these growing problems the Ancient Monument Board for England (Committee on Rescue Archaeology) established a six person Working Party under the chairmanship of Professor Sheppard Frere, and in October 1975 this Working Party produced a 16 page report entitled *Principles of Publication in Rescue Archaeology*, which became widely known as the 'Frere Report'.

Frere, S. *et al.* (1975) *Principles of Publication in Rescue Archaeology*. London: The Ancient Monuments Board (England) and the Department of the Environment.

(For a detailed description of the Frere Report see APPENDIX 2.)

On the surface the Frere Report may have been seen as a relatively small change intended to lessen the size of the final report by raising the level of interpretation, and thereby reducing the overall cost of publication. However, the Frere Report also represented a fundamental change from 'preservation by publication' to 'preservation by record'. The archaeological records were therefore no longer presented in the final publication, but were preserved as a separate 'sealed' (LEVEL II) Site Archive, the possible interpretation then became a (LEVEL III) Research Archive, and the final publication became a descriptive synthesis not of the archaeological records, but of the possible interpretation. (According to Richard Bradley the term 'preservation by record' was borrowed from the architectural recording of threatened buildings, and was first used in archaeology to avoid the word 'research', which did not fall within the remit of the then Department of the Environment (Bradley 2006: 6).)

The Frere Report also established the concept of preservation within separate Archaeological Archives, and so reinforced the division between recording (the (LEVEL II) Site Archive) and possible interpretation (the (LEVEL III) Research Archive). This not only added an extra synthesis stage to the post-excavation process, the preparation of the various Archaeological Archives also added to the size and complexity of post-excavation projects and created a considerably amount of extra work, very little of which could be

easily checked (without consulting the original archives), and very little of which would receive any academic credit.

Although it took some time for the Frere Report to become officially accepted, the recommendations on (LEVEL III) Interim Reports and (LEVEL IV) Synthesis Reports were finally implemented in England by the Inspectorate of Ancient Monuments in 1978 (DoE Advisory Note 16), and were then reinforced in 1980 and 1981 (DoE Advisory Note 25 and 27) (Jones 2001: section 2.3.2). The various local and regional archaeological journals had to change their publication policy sooner as a matter of necessity, and the archaeological units then had to adapt their post-excavation projects to fit this new publication policy. By the late 1970's the basic principles outlined in the Frere Report and the distinction between and the definition of four separate levels of Archaeological Archive had become widely accepted as standard practice.

These changes occurred at the same time as the development of specific post-excavation techniques intended to cope with the increasing size and complexity of post-excavation projects, so although the basic structure of a post-excavation project remained roughly the same, the actual post-excavation methodology gradually changed.

A post-excavation project therefore still consisted of four basic stages (see figure 2):

1 Checking the archaeological records and producing a possible interpretation.

The first part of a post-excavation project would have involved checking all of the archaeological records produced on site to ensure that there were no errors, omissions or inconsistencies. This archaeological documentation would then form an ordered, indexed and internally consistent (LEVEL II) Site Archive, which would have been ‘sealed’ and possibly duplicated to prevent it from being altered or amended as it would represent the most accurate record of the original archaeological stratigraphy possible within the limits of the time and money available. Although the site staff may have done some of this checking while they were completing their own archaeological records, all of the archaeological documentation should also have been re-checked by the Site Director or the Site Supervisor.

Once the Site Archive had been completed it would then have been possible for the Site Director or the Site Supervisor to establish some form of stratigraphic sequence by identifying either a number of consecutive ‘phases of occupation’ or a sequence of ‘phases of activity’ (Participant Interview 01: 7 - 8). This would usually have been based upon Composite Plans and would therefore represent a possible interpretation of the order in which individual activities may have occurred. However, by the early 1980’s this was increasingly done by using some form of Stratigraphic Matrix which would have presented all of the sequential relationships between individual Contexts on a single diagram. This made it far easier to both identify individual ‘phases of activity’, and establish the possible sequence in which those ‘phases of activity’ may have occurred within the limits of the sequential relationships identified on site. This sequence would then form the basis of a possible interpretation, and would also have become part of the (LEVEL III) Research Archive.

At this point the Site Director or Site Supervisor may also have produced a (LEVEL III) Interim Report which would have described this stratigraphic interpretation starting with the earliest ‘phases of activity’ and restricted to the area of excavation. These Interim

Reports would have acted as a guide to the possible interpretation, and would also have marked a point where the post-excavation project could come to a temporary halt while waiting for Finds Catalogues and Specific Finds Reports to be completed. These Interim Reports were also occasionally published in less academic journals to provide immediate information on an excavation, thus producing a secondary level of less reliable archaeological publications.

‘A good example is the booklet called *Interim*, the bulletin of the York Archaeological Trust, which contains conventional Interim Reports interleaved with articles on aspects of ancient York, specialised archaeological techniques, archaeological philosophy and politics and even profiles of members of the Trust.’

(Barker 1982: 249)

2 Identifying the finds and producing individual Finds Catalogues.

All artefacts and ecofacts recovered from the site would have been processed by Context, and then divided into specific categories based upon their material or mode of production, such as pottery, animal bone, human bone or coins. A full Finds Catalogue along with a short discussion section would then have been compiled for each finds category by the site Finds Supervisor, including identifying and quantifying the individual artefacts and ecofacts by Context. The identification of individual artefacts and ecofacts would have also provided additional associated information, such as possible function, possible location of manufacture and possible dates of manufacture, that is a set of bracketed dates within which a specific artefact was believed to have been produced. These dates of manufacture were themselves possible interpretations, and would have been arrived at either as part of a process of trial and error, or from archaeological excavations at production sites. For example, the Museum of London (Department of Urban Archaeology) were able to use dendrochronology dates from the consecutive sequences of wooden revetments excavated on their waterfront sites in the late 1970's and early 1980's to produce possible dates of deposition for the artefact assemblages contained within the dump deposits behind those revetments, and then by comparing large numbers of these dated artefact assemblages they were able to produce possible dates of deposition for individual artefact types and so establish possible dates of manufacture for particular medieval pottery types, which were then checked by excavations at production sites (Participant Interview 15: 15.00). As the identification of individual artefacts and ecofacts was a possible interpretation these Finds Catalogues would then have formed part of the (LEVEL III) Research Archive.

In certain circumstances a short Specialist Finds Reports would also have been obtained from an appropriate Finds Specialists on either a specific object or a particular category of finds, such as coins or human bone. By the late 1970's the development of improved retrieval and sampling techniques had also worked through to post-excavation projects, and this had led to an increase in both the type and quantity of finds recovered, and the amount of information that could be obtained from specific samples. This in turn led to an increase in both the number of different Finds Specialists needed and the volume of material they had to identify and catalogue, and most archaeological units established their

own Finds Departments staffed by a small number of specific Finds Specialists, such as pottery specialists or animal bone specialists.

The Specialist Finds Reports produced by these Finds Specialists would have included standard Finds Catalogues along with a more detailed discussion section and detailed descriptions of specific objects, as well as additional information such as bracketed dates of manufacture. These Specialist Finds Reports would go directly into the (LEVEL IV) Publication Archive and become a part of the (LEVEL IV) Synthesis Report.

The site Finds Supervisor would then recombine finds information from Finds Catalogues and Specialist Finds Reports by Context, and may have also produced a short Finds Report on all the finds evidence, based upon a specific knowledge of the site and the specific context within which the artefact and ecofact evidence had been found. This additional Finds Report would then have formed part of the (LEVEL III) Research Archive.

3 Integrating the Finds Catalogues with the possible interpretation.

Once the Finds Catalogues and Specialist Finds Reports had been completed it would then have been possible to integrate this information into the possible interpretation, and attempt to establish possible dates of deposition.

The methodology for dating archaeological deposits varied greatly, however, most depended upon initially establishing possible dates of manufacture for particular artefact types, and then examining the distribution of those artefact types within the stratigraphic sequence using the logical principles of *terminus post quem* and *terminus ante quem* developed by Philip Barker in the mid 1970's, and published in *Techniques of Archaeological Excavation* (1st edition published in 1977, with an expanded 2nd edition published in 1982). This could be done either by considering individual artefacts, so for example a single sherd of medieval pottery within a deposit containing large amounts of Roman pottery would have proved that that deposit was medieval or later, which was the approach adopted mainly on rural archaeological projects, or by considering all of the finds recovered from an individual Context, so for example a single sherd of medieval pottery within a deposit containing large amounts of Roman pottery could have been dismissed as some form intrusive contamination, which was the approach adopted mainly on urban archaeological projects.

Within some archaeological units this approach developed into a formal 'spot dating' process in which the site Finds Supervisor would layout either all of the finds from each Context, or just the dateable artefacts from each Context, usually pottery and coins along with any C14 or dendrochronology dates, and then provide a bracketed set of possible dates of deposition for certain Contexts (Participant Interview 04: 20), that is a bracketed set of historic dates within which the deposit was believed to have originally been formed or deposited (Participant Interview 01: 10). These 'spot dates' would then be passed on to the Site Director or Site Supervisor who would place them within the stratigraphic sequence and then adjust them in an attempt to identify and lessen the effects of possible intrusive or residual contamination. Any errors or anomalies in the 'spot dating' would then be smoothed out by first combining possible dates of deposition to produce possible dates for individual 'phases of occupation' or 'phases of activity' (Participant Interview

01: 15 - 16), and then by placing those 'phases of activity' in stratigraphic sequence within a local date framework consisting of consecutive Historic Periods dated either by centenary, such as 5th – 6th centenary, or by specific historic dates, such as Early Anglo-Saxon c450AD – c600AD (Harris 1989: figure 48 and figure 63). This would have allowed for the positioning of other 'phases of activity' on the local date framework within the limits of the stratigraphic sequence, and therefore the possible dating of 'phases of activity' which had not contained datable artefacts.

Although this method of dating archaeological evidence would inevitably have affected the possible dates of deposition of specific Contexts, it did provide an element of 'controlled uncertainty' which could then be used to produce a balance between precision and accuracy. The use of Historic Periods therefore prevented over precise and possibly inaccurate archaeological dating, as well as providing a means for clearly identifying roughly contemporary archaeological evidence within the limits of the stratigraphic sequence. This dated sequence would then form the basis of the final interpretation, and would also have become part of the (LEVEL III) Research Archive.

These possible dates of deposition may also have been added to the (LEVEL III) Interim Report, particularly on rural archaeological projects where estimates of historic dates may have been used as a means of establishing a stratigraphic sequence. This created a variety of (LEVEL III ½) Interim Reports (Lavell 1981: 103, cited in Jones 2001: section 2.3.2) which presented various dated low level archaeological interpretations done either by directly dating individual Contexts or by Historic Period and sequence, and based upon the basic interpretation of activity in sequence. Although this may have appeared to be providing additional information, in effect it produced a messy compromise which made it less likely that a full (LEVEL IV) Synthesis Report would have been completed and published.

4 The completion of a Synthesis Report.

Once a dated interpretation had been completed it would then have been possible for the Site Director or Site Supervisor to compile the (LEVEL IV) Synthesis Report from existing information, and produce the written text for the central Interpretation Section. This would have been a *descriptive* mid-level site interpretation which attempted to reconstruct the contemporary physical environment and the development or decline of the area as a sequence of dated historical events, based upon a sequence of ‘phase of occupation’ or ‘phases of activity’ in Historic Periods. All of this additional information and the text of the final (LEVEL IV) Synthesis Report would then have become part of the (LEVEL IV) Publication Archive.

Although the actual form and presentation of individual Archaeological Reports produced during the late 1970’s to early 1980’s would have varied, most would have followed the same basic structure:

- 1 **SUMMARY**, intended to outline the nature of the site and the significance of the findings, so a reader could easily evaluate the relevance of the publication to their particular area of study.
- 2 **INTRODUCTION**, (and **METHODOLOGY**), intended to set the scene by providing a detailed background to the excavation, including the geographical location of the site, the topology and underlying sedimentology, and the known historical development of the area along with the results of any previous excavations.

A general explanation of both the excavation methodology and the post-excavation methodology used may also have been included.

3 **DESCRIPTION**, (or INTERIM REPORT), intended to provide a description of both the structural and the stratigraphic evidence recorded on the site based upon a basic interpretation of ‘phases of occupation’ or ‘phases of activity’ in stratigraphic order starting with the earliest deposits, and including Plans, Section and occupationally photographs, as well as the location of specific finds, basically a (LEVEL 1 interpretation), or possibly a (LEVEL 2 interpretation) if dating evidence was integrated into the text.

This section could have been based upon an earlier Interim Report, and may also have included possible historic dates.

4 **FINDS CATALOGUES**, intended to provide a full description of all the artefacts and ecofacts recovered from the site.

These artefacts and ecofacts would be divided into specific finds categories based upon their material or mode of production, such as pottery, animal bone, human bone or coins. A separate Finds Catalogue would then be compiled for each category by the Finds Supervisor, along with a short discussion section, and in certain circumstances a Specialist Finds Report would be obtained from an appropriate Finds Specialists.

5 **INTERPRETATION**, (or SYNTHESIS), intended to provide a descriptive site interpretation which attempts to reconstruct the contemporary physical environment and the development or decline of the entire area as a sequence of dated historical events, and based upon all the dated archaeological information and specific documentary evidence, basically a (LEVEL 3 interpretation).

This section was more significant, as it presented an easily accessible interpretation of the archaeological evidence.

6 **CONCLUSION**, (and RECOMMENDATIONS), intended to highlight wider implications of the most significant results of the excavation.

As these documents were also intended for internal use within the archaeological unit this section may also have contained recommendations for improving archaeological excavation or recording techniques.

(The gradual inclusion of possible dates of deposition within the Description Section was the key change, as this introduced an additional level of interpretation into what had previously been a relatively straightforward stratigraphic interpretation. By combining these two self supporting interpretations within the Description Section it then became far more difficult for the reader to consider possible alternative interpretations, and far easier for the Site Director or Site Supervisor to present a definitive description which would then support a specific interpretation.)

The resulting Archaeological Report may then have been internally ‘peer reviewed’ within the archaeological unit before being passed onto the publishers where it would have been externally ‘peer reviewed’ (Participant Interview 01: 24) and possibly edited, and once any corrections or additions had been made it would then receive a proposed publication date and would eventually have become an Archaeological Publication.

These changes reduced the overall size of Archaeological Reports and therefore reduced the direct cost of Archaeological Publications, and this solved some of the publication problems by reducing the pressure on archaeological journals while maintaining the academic obligation to publish the results of archaeological excavations. However, these changes had focused upon the more obvious problem of increasing publication costs, while adding to the actual size of post-excavation projects, and this along with the growing number of mainly urban archaeological projects simply added to the more fundamental problem of the ever-increasing publication backlog.

The publication backlog therefore remained a problem because:

- 1 The amount and complexity of post-excavation work was increasing.

The preparation of ordered, indexed and internally consistent Site Archives and Research Archives, as well as the preparation of Interim Reports and the commissioning of increasing numbers of Specialist Finds Reports all contributed to the amount and

complexity of post-excavation work, and thus the amount of time and the personal commitment needed by the Site Director or Site Supervisor to complete a post-excavation project. So post-excavation projects were becoming an arduous, time consuming and rather daunting task for a single individual to undertake (Participant Interview 16: 48.00).

2 Site Directors and Site Supervisors remaining on site and stockpiled post-excavation projects.

The growing number of mainly urban archaeological projects meant that experienced Site Directors or Site Supervisors were increasingly required on site (Participant Interview 16: 21.30, 48.00), and this gave those Site Directors or Site Supervisors the opportunity to delay the start of post-excavation projects either because they preferred to be working out on site rather than working on their own in an office, or because they were trying to avoid particularly difficult or complex post-excavation projects, or simply because they were stockpiled post-excavation projects to ensure future employment. However, those same individuals still wanted the academic credit for the archaeological projects they had directed or supervised, and post-excavation and publication was therefore still considered as a personal obligation and a personal opportunity which could both ensure future employment and provide academic credit (Participant Interview 10: 13 - 14).

3 Under funding of post-excavation work and poor project management.

It was generally accepted that unlike archaeological rescue excavation, archaeological post-excavation and publication could be undertaken at any time, as it was dependent only upon the existing archaeological records, so there was no great rush to start a post-excavation project, and once started there was no agreed work schedule or completion date (Participant Interview 10: 11 - 12). This also applied to funding, as it was considered that post-excavation work proceeded until the funding ran out, at which point the post-excavation project could simply stop and remain dormant until more funding became available, so the entire process could simply grind to a halt at any point and stay like that for years until someone took an interest and found additional funds (Participant Interview 08: 7 - 8; Participant Interview 14: 23.30; Participant Interview 16: 48.00).

This all added to the growing size, complexity and therefore the cost of post-excavation projects, and by the early 1980's many archaeological units were starting to become more selective about which post-excavation projects were funded. However, this selectivity was frequently based upon personal interests and personal priorities, and not upon either an established local, regional or national research design or an overall project design, and this lack of focus simply added to the project management problems, and indirectly to the publication backlog.

1.2.3 THE CONSOLIDATION OF PRESERVATION BY RECORD (The mid 1980's to late 1980's)

In an attempt to address these more fundamental problems the Council for British Archaeology and the Department of the Environment established a ten person Joint Working Party in 1981 under the chairmanship of Professor Barry Cunliffe, and in September 1983 this Joint Working Party produced a 10 page report entitled *The Publication of Archaeological Excavations*, which became widely known as the 'Cunliffe Report'.

Cunliffe, B. *et al.* (1983) *The Publication of Archaeological Excavations*. York: Council for British Archaeology and the Department of the Environment.

(For a detailed description of the Cunliffe Report see APPENDIX 2.)

Although the Cunliffe Report attempted to simplify and streamline the archaeological process by introducing standard project management techniques, this represented a radical change to what was still considered as academic research, and was therefore something that did not necessarily require project management. These changes also involved the completion of two Research Designs and a Proposal for Publication which were management documents that did not directly contribute to the final publication, and though Excavation Research Designs were gradually introduced to justify grant funding, many archaeologists considered Post-Excavation Research Designs as a non-essential distraction. Many of the recommendations put forward in the Cunliffe Report were also underpinned by the use of microfiche to provide access to both the Site Archive and the Research Archive, however, producing documentation suitable for microfiche involved considerable effort, including re-writing original documentation, and though the use of microfiche archives was attempted it proved to be entirely impractical (Participant Interview 04: 28). The Cunliffe Report was accepted by English Heritage, but was rejected by the Council for British Archaeology's own Council, partly because of the emphasis upon microfiche (Jones 2001: section 2.3.3 and section 2.6.2), and though it had little noticeable effect at the time, it did form the basis for all later policy documents.

Post-excavation projects therefore tended to continue as before, with individual archaeological units developing their own specific post-excavation techniques and procedures intended to cope with the increasing size and complexity of post-excavation projects, so although the basic structure of a post-excavation project remained roughly the same, the actual post-excavation methodology continued to change.

A post-excavation project therefore still consisted of four basic stages (see figure 2):

1 Checking the archaeological records and producing a possible interpretation.

The need to make the most effective use of the limited time available on site, and the quantity and complexity of the archaeological documentation produced frequently meant that any problems with archaeological records were either intentionally or unintentionally left until later, and this inevitably created problems when the Site Archive was eventually checked by the Site Director or Site Supervisor during the early stages of post-excavation (Participant Interview 01: 7).

The minimum acceptable standard was an ordered, indexed and internally consistent Site Archive which would then have been made widely available for both critical examination and future research, so if any obvious errors or omissions were identified during post-excavation checking they would have been corrected. However, there was a fine line between *correcting* the original archaeological records to rectify obvious errors or omissions, and *changing* the original archaeological records, either to correspond to later interpretations, or to limit the number of possible alternative interpretations. Any less obvious errors may therefore have produced two sets of completely contradictory records, either one or possibly both of which were incorrect, and without checking the original archaeological stratigraphy on site or without adequate cross-referencing built into the Documentation Systems it would become impossible to tell where the error may have occurred. This was particularly the case on large urban archaeological projects which used the Single Context Recording System, as this depended entirely upon overlaying Single Context Plans to establish the stratigraphic sequence, which in theory was fine, but which in practice meant that every Plan had to be 100% accurate every time.

These problems led to individual Site Directors or Site Supervisors adopting two different approaches:

A Running Stratigraphic Matrix:

This approach was developed in Winchester in the mid 1980's, and involve 'front loading' the archaeological project by completing the Stratigraphic Matrix on site during the excavation, and then using this running Stratigraphic Matrix to identify any problems or inconsistencies on site while the archaeological stratigraphy was still visible in the ground and could still be checked by direct observation. This process was made simpler by grouping together small numbers of directly related Contexts, each of which probably occurred as separate parts of a single action, for example the cut and fills which represented the digging and backfilling of a single pit or grave, or the foundation cut, foundation and upstanding masonry which represented the construction of a specific wall. These directly related Contexts (which were increasingly referred to as Stratigraphic Units) would then form a single Stratigraphic Events, and the individual Context numbers (or Stratigraphic Unit numbers) would be placed on the running Stratigraphic Matrix in their appropriate stratigraphic sequence within a single Stratigraphic Event box. This in effect created a two stage process in which the relatively simple consecutive sequential relationships within a Stratigraphic Event would be established first, and then that Stratigraphic Event would be considered as a single action and the more difficult sequential relationships between individual Stratigraphic Events would be established by specific observations on site, thus lessening the overall number of variables and so making it far easier to construct and maintain a running Stratigraphic Matrix during the excavation (Participant Interview 19: 59.30, 67.30). The running Stratigraphic Matrix could then be used both as the main method of co-ordinating and controlling the excavation by indicating which archaeological deposits should be excavated next and where to look for additional sequential relationships, and as a definitive record of the stratigraphic sequence against which all other archaeological documentation could then be checked, thus eventually producing an ordered, indexed and internally consistent Site Archive.

A Post-Excavation Stratigraphic Matrix:

The opposite approach involved undertaking some basic checking on site, but then going through the entire Site Archive at the same time as producing the Stratigraphic Matrix at the start of post-excavation. This was frequently the result of a natural tendency to put off difficult decisions until later, and applied to both Site Directors and Site Supervisors, as well as some site staff who knew that once the excavation had finished all their archaeological recording would be someone else's problem. However, if the archaeological records produced on site had not been completed to an adequate standard then the resulting inconsistencies in the Site Archive would make it very difficult to construct a Stratigraphic Matrix during post-excavation, and many of the problems that were experienced with the Matrix System (Harris, Brown and Brown 1993: 7 - 19) were actually the result of poor archaeological recording. This occasionally led to a complete reversal of the process, and instead of using the Site Archive and the Stratigraphic Matrix to produce an interpretation, the interpretation would be established first and then a Stratigraphic Matrix would be constructed to depict that interpretation, and finally the original archaeological records would be altered or *changed* to fit the Stratigraphic Matrix.

Although there may have been difficulties in producing a Stratigraphic Matrix, once completed it did represent all of the Stratigraphic Units and all of the sequential relationships observed on site in an established stratigraphic sequence on a single diagram, and was therefore used as the basis for the rest of the archaeological interpretation.

The next part of the post-excavation process was to use the Stratigraphic Matrix to identify individual 'phases of activity' within the limits imposed by the stratigraphic sequence, and again the way this was done and the terminology used varied not only between different archaeological units, but also between different individual Site Directors or Site Supervisors. In general in the early to mid 1980's the Winchester Archaeological Unit tended to group small numbers of closely related Stratigraphic Events into individual 'Phase Groups' each of which would represent a single 'phase of similar activity' in relative time (Participant Interview 19: 69.30). These Phase Groups would then be roughly defined and colour coded based upon the 'type of activity', for example

construction, occupation or destruction (Participant Interview 19: 69.40). However, the Museum of London (Department of Urban Archaeology) and the York Archaeological Trust tended to produce post-excavation Stratigraphic Matrixes based upon individual Contexts, and by the mid to late 1980's they had developed a different two stage process, the first part of which involved the formation of individual Sub-Groups, Context-Series or Context-Sets from a number of closely related Contexts (Participant Interview 13: 19.30) (roughly the equivalent of Stratigraphic Events, but produced during post-excavation from Plans and Sections, and not from direct observations made on site). A number of Sub-Groups or Context-Series along with individual Contexts would then be amalgamated into individual 'Groups' (roughly the equivalent of Phase Groups), each of which was intended to form a discussion point within the final interpretation (Pearson and Williams 1993; Participant Interview 07: 28 - 31; Participant Interview 14: 7.30). Although these methods of producing Phase Groups or Groups were roughly the same process, the Winchester Archaeological Unit system was simpler and tended to produce far clearer and better defined results, mainly because they started off with a clearer and better defined Stratigraphic Matrix.

To further simplify the interpretation process a separate Phase Matrix may then have been produced, which would have consisted of all the individual Phase Groups or Groups identified during the initial stage of interpretation within the same stratigraphic sequence (Participant Interview 13: 22.30; Participant Interview 14: 7.30). This would enable the Site Director or Site Supervisor to visualise and manipulate the possible interpretation by adjusting the vertical position of individual Phase Groups or Groups on the Phase Matrix within the limits of the sequential relationships established on site during the course of the excavation (Participant Interview 14: 10.00). This *phasing* process would then have been used to identify and link individual sequences of activity, and may be defined as establishing the order in which specific activities were most likely to have occurred within relative time (Participant Interview 14: 11.00). As the Winchester Archaeological Unit defined Phase Groups as different 'types of activity' Site Directors or Site Supervisors tended to look for both similar types of activity which may have occurred in different areas of the site at roughly the same time (*horizontal phasing*), and natural 'cycles of activity' in which phases of construction activity were followed by phases of occupation activity, and then by phases of destruction activity or abandonment (Participant Interview 19: 70.10). By looking for a natural 'cycle of activity' it was then possible to both identify

any anomalies which may have required additional explanation, and deduce the existence of any unrecorded or missing phases of activity, such as indirect evidence of human occupation which was most likely to have occurred after phases of construction, particularly after the construction of floor surfaces, but before phases of destruction. All possible phases of occupation either direct or indirect would then have been indicated along the right hand side of the Phase Matrix. The Department of Urban Archaeology and the York Archaeological Trust did not define individual Groups and instead developed a more abstract *phasing* process which involved identifying the longest possible sequence of directly related Groups. This would then become the 'primary route' through the Phase Matrix, and then subsidiary routes would be attached at specific 'nodal points', which were specific phases of activity that had effected wide areas of the site (Pearson and Williams 1993).

Once the *phasing* had established the order in which specific activities may have occurred then this sequence of activities would have been checked by considering the contemporary physical environment that had been created and identifying specific areas of the site where particular activities may have occurred. This *zoning* process would then have been used to identify individual 'areas of activity', and may be defined as establishing the physical divisions of the contemporary ground surface and the physical locations in which specific activities occurred within relative time. Each individual Phase Group or Group may have formed all or part of an area of activity, which itself may have been limited or defined by physical divisions within the contemporary ground surface, such as walls, fence lines or ditches, and by identifying the position of these physical divisions within relative time it would then have been possible to eliminate any logical errors within the *phasing*, such as rooms which existed without doorways or paths which ran up to blank walls.

Having established different areas of activity it would then have been possible to consider the actual activity which occurred within specific areas, any change in that activity over relative time, and finally the possible reason for those changes. Due to construction schedules in the City of London in the mid to late 1980's the Department of Urban Archaeology usually excavated a series of separate pre-demolition trenches in cellars while the existing building was still upstanding, and each of these trenches was considered as a separate excavation. To link these separate trenches with post-demolition trenches

and trenches from earlier excavations the Department of Urban Archaeology developed a system of schematic Land Use Diagrams which were intended to depict changes in activity in different areas of the entire site (the different individual trenches) over time (Participant Interview 14: 7.00, 11.30). The Winchester Archaeological Unit usually excavate large open area sites, and so tended to produce Composite Phase Plans at the end of the interpretation process to depict general changes in activity in different areas of the site over time (Participant Interview 19: 72.00). These Composite Phase Plans were usually based upon individual phases of occupation, thus showing the contemporary ground surface before and after relatively short phases of construction or destruction.

The Phase Matrix would therefore have been used to first eliminate impossible interpretations which did not conform to the original stratigraphic sequence, and then as a means of identifying and testing possible alternative interpretations of the same stratigraphic sequence, and once completed and checked it would also depict a specific interpretation. To document and explain this specific interpretation each individual Phase Group or Group would also have received a written free text description completed by the Site Director or Site Supervisor. This could be done either on separate Phase Group Sheets which were used to both document the interpretation process and record the interpretation, which was the approach that was occasionally adopted by the Winchester Archaeological Unit, or as free text Group Discussions used to describe individual Groups, which was the approach adopted by the Department of Urban Archaeology and the York Archaeological Trust. Additional Inter-Group Discussions may also have been used to describe either the transition between specific Groups or specific 'phases of occupation' between Groups (Pearson and Williams 1993). Over time all of these free text descriptions became known as either Phase Group Descriptions or Group Text (Participant Interview 14: 19.30). The final possible interpretation would then be constructed from these free text descriptions, presented as a number of consecutive 'phases of activity' in sequence, starting with the earliest deposits.

The Site Director or Site Supervisor may also have produced some form of Interim Report which summarised the possible interpretation as a structured form of free text description, starting with the earliest 'phases of activity' and restricted to the area of excavation. These Interim Reports would have acted as a guide to the possible interpretation of the

stratigraphic evidence, and would have also marked a point where the post-excavation project could come to a temporary halt and then be resumed without too much loss of momentum. Finally, all of this additional documentation would then have formed the first part of the Research Archive.

Although a large number of different methods were used to produce possible interpretations many of these were developed by individual archaeologists working on specific post-excavation projects and were then never passed on to others, particularly if the project remained unpublished. Some attempts were made to structure and standardise post-excavation within Archaeological Units so that interpretations from different archaeological projects could be directly compared (Participant Interview 13: 3.30), and the Department of Urban Archaeology even attempt to produce a post-excavation manual in the mid 1980's, however, this proved to be far too controversial and no consensus could be established (Spence 1993), so post-excavation remained an unstructured individual activity.

2 Identifying the finds and producing Specialist Finds Reports.

All artefacts and ecofacts recovered from the site would have been processed by Stratigraphic Unit (these individual collections of artefacts and ecofacts were increasingly referred to as individual Stratigraphic Assemblages), and then divided into specific categories based upon their material or mode of production, such as pottery, animal bone, human bone or coins. The site Finds Supervisor would have been responsible for processing these finds, however, by the mid 1980's most of the actual finds analysis would have been done by an appropriate Finds Specialists (Participant Interview 01: 6 - 7).

The main Finds Specialists, such as pottery specialists or animal bone specialists would have been members of the Finds Department and would have developed specific local knowledge (Participant Interview 16: 20.30). However, the rest of the increasing number of Specialist Finds Reports were undertaken by external Finds Specialists who were possibly employed either by other larger archaeological units, or by universities or museums (Participant Interview 01: 7), and who were primarily interested in changes and developments within their own particular speciality. This was reflected in a gradual increase in the size and complexity of Specialist Finds Reports which include not only the standard Finds Catalogues along with a more detailed discussion section and bracketed dates of manufacture, but also far more detailed analysis and descriptions of specific objects intended primarily for other Finds Specialists, and this increase in the size and complexity of Specialist Finds Reports led to a corresponding increase in cost.

The decline in the responsibilities of the site Finds Supervisor and the reliance upon Finds Specialists, particularly external Finds Specialists meant that the direct link to specific archaeological excavations was gradually lost, and Specialist Finds Reports were therefore increasingly written by Finds Specialists primarily for other Finds Specialists, and concentrated upon the finds as specific objects seen in isolation. Once this gradual change in emphasis had become widely accepted then Specialist Finds Reports could themselves be produced in isolation with only a limited knowledge of the site, and without having to consider either the physical context within which individual artefacts or ecofacts had been found or the rest of the Stratigraphic Assemblage.

Regardless of the number, size or exact purpose of the Specialist Finds Reports once they had been completed they would have been added to the Research Archive, although some of the external Specialist Finds Reports may have gone directly into the Publication Archive and eventually into the final publication.

3 Integrating the Specialist Finds Reports with the possible interpretation.

Once all the Specialist Finds Reports had been completed either the site Finds Supervisor or increasingly the Site Director or Site Supervisor would attempt to extract relevant information from them, and then reassemble and restructure that information into the assemblage evidence recovered from each individual Stratigraphic Units. It would then have been possible to integrate this information into the possible interpretation, and attempt to establish possible dates of deposition.

The methodology for dating archaeological deposits still varied, however, most depended upon initially establishing a bracketed set of possible dates of deposition for individual Stratigraphic Units. This would have been done by the site Finds Supervisor producing ‘spot dates’ for certain Stratigraphic Units, and then passing these onto the Site Director or Site Supervisor who would place them within the stratigraphic sequence and then adjust them in an attempt to identify and lessen the effects of possible intrusive or residual contamination (Participant Interview 14: 18.00). Any errors or anomalies in the ‘spot dating’ would then have been smoothed out by combining possible dates of deposition to produce possible dates for individual Phase Groups or Groups on the Phase Matrix (Participant Interview 14: 18.30). An element of ‘controlled uncertainty’ would then have been introduced by placing this dated Phase Matrix within a local date framework consisting of a number of consecutive Historic Periods dated either by centenary, such as 14th – 15th centenary, or by specific historic dates, such as Late Medieval 1380 AD – 1485 AD, thus eventually producing a fully dated Periods Matrix which would both describe and depict the possible interpretation (Harris 1989: figure 48 and figure 63; see also Harris, Brown and Brown 1993; Participant Interview 14: 19.00).

If Site Directors or Site Supervisors had to produce the ‘spot dates’ then there would have been an obvious temptation to simplify this lengthy linear dating process either by producing a bracketed set of possible dates of deposition for individual Phase Groups or Groups directly from the dates of manufacture provided by the Specialist Finds Reports, or by completely reversing the process and placing individual Phase Groups or Groups in the desired Historic Period and then looking for evidence to support that interpretation while dismissing any contradictory evidence as residual or intrusive contamination. Both

of these options could occur because the dating of archaeological deposits could become an almost perfect circular interpretation in which the identification of contamination would depend on the dates of deposition, and the dates of deposition would depend upon the identification of contamination (Participant Interview 19: 72.45). In these circumstances it was therefore perfectly possible and indeed much simpler for a Site Director or Site Supervisor to adopt a 'top down' approach to archaeological dating which involved making some form of educated guess at the dates of deposition within the limits provided by the stratigraphic sequence and then presenting only the assemblage evidence which supported that particular interpretation.

This could lead to the 'cultural dating' of archaeological deposits, in which the Site Director or Site Supervisor would consider both the stratigraphic and assemblage evidence as material culture, and then makes an assessment of cultural identity, such as 'Early Romano-British' or 'Late Anglo-Saxon'. Having done this the Site Director or Site Supervisor would then attach pre-determined historic dates to the archaeological evidence based upon this interpretation of cultural identity, such as 'Early Romano-British 40 AD – 120 AD' or 'Late Anglo-Saxon 920 AD – 1066 AD', and then use these dates as the best educated guess, which would eventually become a self fulfilling prophecy. However, this method of dating is constantly open to error as is entirely dependent upon correctly identifying cultural identity, and this may not have been immediately recognisable within the archaeological evidence recovered from the excavation, or cultural change may not have occurred at the pre-determined dates within the specific area of the excavation. The use of cultural dating could therefore lead to a form of 'cultural purity' by dating, which may then create and reinforce interpretations of large monolithic blocks of uniform cultural identity, whereas the actual situation at any specific time may have been far more complex.

Having completed a fully dated Periods Matrix the Site Director or Site Supervisor would then have prepared a Summary Report (Cunliffe 1983: section 4.3), which would have been roughly the equivalent of an earlier (LEVEL III ½) Interim Report. These Summary Reports would act as a detailed dated description of the possible interpretation done by Historic Period and sequence, starting with the earliest individual Phase Groups or Groups and restricted to the area of excavation. The Summary Reports would then have been

added to the Research Archive, however, as these reports were not intended for publication they would not have received any form of ‘peer review’ which provided an element of academic quality control, and so represent a secondary level of less reliable archaeological reports.

Either before or after the completion of the Summary Report a decision would have been taken upon whether the results of the archaeological project justified proceeding to full publication, and this may or may not have involved the preparation of a separate Proposal for Publication (Cunliffe 1983: section 3.7), usually depending upon whether additional funds were required. If the decision was taken not to proceed to full publication then the completion of the Summary Report and the preparation and preservation of an ordered, indexed and internally consistent Research Archive would mark the end of the archaeological project, and this was considered as an acceptable alternative to full publication as all of the detailed information would still have been available for future research within the Site Archive.

(In London a Summary Report (possibly with only limited finds information) would have been referred to as an Archive Report, and for smaller archaeological projects all post-excavation work would come to an end at this point. The idea was that at some point in the future a number of Archive Reports from the same small geographical location would be grouped together to form a single integrated interpretation and a higher level Archaeological Publication of the whole area, although in areas covered by the Museum of London (Department of Greater London Archaeology) (the DGLA) a number of these Archive Reports were submitted to local or regional archaeological journals for possible publication. (Participant Interview 14: 23.00). Interestingly, the fascicle publication system used by the York Archaeological Trust was developed partly because the Specialist Finds Reports were completed before the stratigraphic interpretation, and the Archive Report system used by the Museum of London was developed partly because the stratigraphic interpretation was completed before the Specialist Finds Reports.)

4 The completion of a Synthesis Report.

If the decision to proceed to publication had been taken then the Site Director or Site Supervisor would then compile the Synthesis Report from existing information, and produce the written text for the central Interpretation Section. This would have been a *descriptive* mid-level site interpretation which attempted to reconstruct the contemporary physical environment and the development or decline of the area as a sequence of dated historical events, based upon a sequence of Phase Groups or Groups in Historic Periods. This interpretation would probably have covered the general area of the excavation, and may have also included the limited use of specific historical documentation or the results of neighbouring excavations. All of this additional information and the text of the final Synthesis Report would then have become part of the Publication Archive.

Although the actual form and presentation of individual Archaeological Reports produced during the mid to late 1980's would have varied, most would have followed the same basic structure:

- 1 **SUMMARY**, intended to outline the nature of the site and the significance of the findings, so a reader could easily evaluate the relevance of the publication to their particular area of study.
- 2 **INTRODUCTION**, (and **METHODOLOGY**), intended to set the scene by providing a detailed background to the excavation, including the geographical location of the site, the topology and underlying sedimentology, and the known historical development of the area along with the results of any previous excavations.

This may also have included a general explanation of both the excavation methodology and the post-excavation methodology used, as well as an explanation of the methodology used for dating the archaeological deposits.

3 **DESCRIPTION**, (or **SUMMARY REPORT**), intended to provide a description of both the structural and the stratigraphic evidence recorded on the site based upon a dated archaeological interpretation of Phase Groups or Groups in sequence starting with the earliest deposits, and including Plans, Section and occupationally photographs, as well as the location of specific finds, basically a (LEVEL 2 interpretation) with the dating evidence integrated into the text.

This section could have been based upon an earlier Summary Report, with the explanation of how this particular description was arrived at contained in the Research Archive.

4 **FINDS REPORTS**, intended to provide a full description and analysis of all the artefacts and ecofacts recovered from the site.

These artefacts and ecofacts would be divided into specific finds categories based upon their material or mode of production, such as pottery, animal bone, human bone or coins etc, and a Specialist Finds Report would be obtained from an appropriate Finds Specialists.

5 **INTERPRETATION**, (or **SYNTHESIS**), intended to provide a descriptive site interpretation which attempts to reconstruct the contemporary physical environment and the development or decline of the entire area as a sequence of dated historical events, and based upon all the dated archaeological information and specific documentary evidence, basically a (LEVEL 3 interpretation).

This section was more significant, as it presented an easily accessible interpretation of the archaeological evidence.

6 **CONCLUSION**, (and **RECOMMENDATIONS**), intended to highlight wider implications of the most significant results of the excavation.

As these documents were also intended for internal use within the archaeological unit this section may also have contained recommendations for improving archaeological excavation or recording techniques, or the running or management of archaeological projects.

The resulting Archaeological Report would then have been passed on to the publishers where it would have been ‘peer reviewed’ and possibly edited, and once any corrections or additions had been made it would then receive a proposed publication date and would eventually have become an Archaeological Publication.

Although these changes did not directly affect the relative size and therefore the cost of Archaeological Publications, they did add to the size and complexity and therefore the cost of post-excavation projects. This was partly due to the increasing number of Specialist Finds Reports being undertaken, however, it was mainly due to the additional time needed to prepare both the Site Archive and the Research Archive, particularly on large urban archaeological projects. This additional time also meant an additional personal commitment by the Site Director or Site Supervisor in order to complete the post-excavation project, and some Site Directors or Site Supervisors may therefore have become reluctant to start large post-excavation projects which could take a number of years to complete, particularly if the excavation had not gone according to plan and the Site Director or Site Supervisor could anticipate more than the usual number of problems. (This was particularly the case with the post-excavation projects left unfinished following the relatively sudden end of the Manpower Services Commission schemes, many of which then had to compete for limited grant funding (Participant Interview 01: 5, 22; Participant Interview 05: 31 - 32; Participant Interview 06: 8 - 9, 14; Participant Interview 10: 12 - 13; Participant Interview 16: 19.30).) Certain problematic post-excavation projects therefore never got started or were permanently classified as ‘ongoing’, and even if post-excavation project did start the additional time needed to complete them meant that they were more likely to run into funding problems and so come to a temporary halt which could then turned into a permanent halt, and the Site Director or Site Supervisor could also simply lose the will to carry on and would then look for any excuse to get back out on site. This all added to the number of abandoned or partially finished post-excavation projects, as well as the ever-increasing publication backlog (Participant Interview 08: 7 - 14).

The introduction of project management practices was intended to address some of these problems by focusing research upon the production of an Archaeological Publication,

however, with some notable exceptions (Participant Interview 08: 12; Participant Interview 09: 9 - 12) the completion of management documents was widely seen as an additional level of unnecessary bureaucracy which did not directly contribute to the end result, unless of course it was necessary to justify additional grant funding. The most significant change was therefore the introduction of, or more accurately the acceptance of selective Archaeological Publication, which although it may have appeared to be an obvious solution to publication problems, actually weakened the personal obligation to publish the results of an archaeological excavation. This change still required the Site Director or Site Supervisor to go through the process of producing an Archaeological Publication, but then ended up with an unpublished site Summary Report which was not 'peer reviewed' or widely disseminated, and which therefore did not receive any academic credit, thus also lessening the importance of academic credit as a motivating factor. The decision to proceed to full publication had originally been intended to prevent the publication of sites of 'minor importance', however, this emphasis could easily be reversed and become the full publication of only sites of 'major importance', and once this distinction had been introduced full Archaeological Publication could easily become the exception and site Summary Reports become the rule. These site Summary Reports then became the origins of unpublished archaeological 'grey literature' reports, and were only academically acceptable because of the availability of both an ordered, indexed and internally consistent Site Archive and an ordered, indexed and internally consistent Research Archive.

2 THE PRIVATISATION OF PROFESSIONAL ARCHAEOLOGY

This was the situation up until January 1989 when a team of archaeologists from the Museum of London (Department of Greater London Archaeology (Southwark and Lambeth)) (*myself included*) uncovered Shakespeare's Rose Theatre on the south bank of the River Thames, just to the west of Southwark Bridge (Bowsler 1998).

After a slow start this discovery generated a lot of public interest, thanks in part to a deliberate publicity campaign organised by the actor Ian McKellen and the local MP Simon Hughes, who arranged for a number of questions to be asked in the House of Commons (Hansard 1989a; Hansard 1989b; Hansard 1989c; Hansard 1989d). However, the developers had already received planning permission for a multi million pound office block on the site, and if the substantial and clearly visible structure of the Elizabethan theatre was to be preserved as a scheduled ancient monument and put on public display then the developers would have had to have been compensated by the government to the tune of around £2 million (which was what we were told at the time, or 'conservatively estimated at £60 million' according to English Heritage (Wainwright 1989: 432), or £5 to £25 million pounds according to Jean Wilson (Wilson 1995: 162)), and that was something that Nicholas Ridley MP the then Secretary of State for the Environment was reluctant to do. (There is some indication that part of the cost of compensation would have potentially been taken from the English Heritage budget (Aitchison 2012: 58), which may explain English Heritage's reluctance to recommend that the Rose Theatre site should be scheduled as an ancient monument (Hansard 1989b).) There were large public protests which included a number of eminent Shakespearean actors and an all-night vigil outside the site on 14th - 15th May prior to building work starting on the site at 6.00am on Monday 15th May (see also <https://www.youtube.com/watch?v=fMadA49qRIA> and <https://www.youtube.com/watch?v=fb2G6ioVD2Y> (accessed 2015)), and in consequence a lot of national and international television coverage which presented the Museum of London archaeologists in a good light, and the developers (Imry Merchant Developers PLC) and the then Conservative government in a bad light. Finally, following two House of Commons debates on 15th May (Hansard 1989e) and 15th June (Hansard 1989f) an unsatisfactory form of compromise solution was found whereby the site would be 'preserved *in situ*' by being buried in sand and concrete, and then piled to allow for the

construction of the office block at a slightly higher level (Biddle 1989). (The Museum of London refused to get involved with this process, so this additional work was eventually undertaken by the English Heritage funded Central Excavation Unit.) Unfortunately for British archaeology, this had all generated a lot of bad publicity for the then government, and to prevent such a thing happening again they effectively privatised professional archaeology.

This was done by encouraging developer funding and competitive tendering for archaeological projects. Under this new privatised system the developer would have to fund all future archaeological excavations, however, the developer could ask for competitive tenders from a number of competing 'archaeological organisations' and then award the contract to whoever they liked regardless of their original area of operation. The developer would also be allowed to put forward a 'mitigation strategy', which was intended to preserve as much of the surviving archaeological stratigraphy as possible *in situ* (following the example of the Rose Theatre excavation), thus removing the need for any archaeological excavation.

The initial reaction of most archaeological units to this new policy was to refuse to bid for sites outside their traditional areas. However, some archaeological units, notably the Oxford Archaeological Unit, were prepared to undertake work outside Oxfordshire, and in fact they completed an archaeological site in Southwark while the Rose Theatre site was still being excavated (possibly to prove a political point). Over the next few years the Oxford Archaeological Unit were to turn up in a number of unexpected locations.

This new privatised system was eventually formulised by Michael Heseltine MP, the then Secretary of State for the Environment, and published in a 36 page document entitled *Planning Policy Guidance 16: Archaeology and Planning* in November 1990, and which became widely known as PPG16.

Department of the Environment (1990) *Planning Policy Guidance 16: Archaeology and Planning*. London: Department of the Environment.

This superseded most of the *Ancient Monuments and Archaeological Areas Act 1979*, which had established scheduling as the main means of protecting ancient monuments, and had also established Areas of Archaeological Importance in the centre of specific historic cities. On a superficial reading PPG16 may be seen as strengthening the position of archaeological excavation as it placed archaeological considerations firmly within the planning process, and at the time it was welcomed by a number of eminent archaeologists who saw it as both a source of additional funding and the first stage in a longer process (Jones 1991). However, this document was a direct response to the problems that the Rose Theatre excavation had created for both the government and the developers, and the general recommendations it put forward were based upon the rather unsatisfactory solutions that were found for that one specific and unique excavation. Over the intervening years this limited view has had a profound effect upon professional archaeology in Britain, and has led to a vast increase in the quantity of archaeological excavations, and a slow but steady decline in the quality of archaeological excavations.

To understand the reason for this decline it is necessary to examine the two main themes of this new privatised system, ‘developer funding and competitive tendering’ and ‘preservation *in situ*’.

DEVELOPER FUNDING AND COMPETITIVE TENDERING

The practice of developers contributing to the cost of archaeological excavation in order to lessen the amount of time the archaeologists spent on site had existed since the start of professional archaeology, however, these ‘sponsorship’ arrangements were usually voluntary donations intended to ease the construction process and lessen the effects of unfavourable publicity (Participant Interview 05: 12 - 20; Participant Interview 09: 7 - 9). In normal circumstances planning conditions only specified that the developers should provide access to the site and time for an archaeological excavation to take place, and with limited grant funding available (particularly following the end of the Manpower Services Commission schemes in the late 1980’s) the burden of funding archaeological excavations could fall upon local or regional councils, who either directly or indirectly helped maintain local or regional archaeological units. This was something that councils were keen to avoid (Aitchison 2012: 57, 61), and one possible solution to this problem was for local planning departments to use European environmental regulation (based upon the ‘polluter pays principle’) to also cover the funding of archaeological excavations.

The ‘polluter pays principle’ (PPP) was first developed as a basis for environmental policy by the OECD and EU in the early 1970’s, and it formed part of the first European Environmental Action Program (1973 - 1976). Archaeology was first included within this regulatory structure in 1985 in the *European Impact Assessment: Council Directive (85/337/EEC)*, where tucked away in Annex III, section 3 it states that developers must provide at their own expense:

‘A description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.’

(Council of the European Communities, Council Directive 85/337/EEC: Annex III, section 3)

Although this was only a Council Directive (intended to establish end results which member states should then achieve through their own legislation), it did make it possible for local planning departments to put pressure on developers to extend environmental impact expenditure to also cover the destruction of archaeological stratigraphy and the funding of archaeological excavations, even if the developers were still reluctant to fund post-excavation projects.

Once the principle of direct developer funding of archaeological excavations had been introduced it then became obvious that the local archaeological unit would have a local or regional monopoly and would therefore be able to charge whatever they liked, and the larger developers, particularly the large gravel companies and construction companies, then started to approach other archaeological units (which they may have worked with successfully in other parts of the country) to see what they would charge and what sort of service they were able to offer.

‘As far as I was aware, the first instance of competitive archaeology in England took place in Berkshire in 1988. News of the contract won and the lost tender broke at the IFA Conference and many were expecting a punch-up between the two Unit Directors involved. The fight never took place, and they and their Units have competed and co-operated on many occasions since.’

(Chadwick in Swain 1991: 7).

This site was Small Mead Farm (Reading Business Park) on the Kennet valley flood plan to the south west of Reading, which was started as an evaluation project by the Trust for Wessex Archaeology in spring 1986, and then completed as an archaeological excavation by the Oxford Archaeological Unit in 1987 and 1988.

‘The Trust for Wessex Archaeology ‘territorial monopoly’ had been broken a couple of months earlier when a gravel company employed the Oxford Archaeological Unit (without a tender and on the basis that they used the OAU on their gravel site in Oxfordshire) to undertake an evaluation on a planning application site at Brimpton. At Reading Business Park, the developer [Prudential Property Investment Managers Ltd.] was new to archaeology and he just presumed that he could employ who he wished to undertake the work – as long as it was to a standard acceptable to the County and Borough Councils.

(Paul Chadwick, pers. comm., 2014 (former County Archaeologist for Berkshire))

The competitive tendering system that developed was therefore based upon similar sub-contracted construction contracts, with the developer asking for competitive tenders based on ‘fixed cost bids’ from a number of competing archaeological organisations, and then awarding the contract to whoever they liked regardless of their original area of operation. This was intended to create a competitive market, and so increase the efficacy and effectiveness of archaeological units, who would then be more responsive to the needs of the client, without defining who that client was, the developers or the local community and future generations. In reality, for a relatively small and limited cost all the risk of an unexpected archaeological discovery had been taken off the developers and had been passed onto the archaeological units, who had to put in ‘fixed cost bids’ without knowing exactly what they were going to find.

Although this was in line with the then Conservative government's policy of cutting back on public expenditure and the privatisation of public services ‘developer funding and competitive tendering’ was not directly mentioned within PPG16, as by then (November 1990) ‘developer funding’ at least had become an established practice, even if ‘competitive tendering’ was still being resisted. (The legal requirement for developers to fund archaeological excavations based upon the ‘polluter pays principle’ was finally introduced into European law in 1992 following the *European Convention on the Protection of the Archaeological Heritage*, also known as the ‘Valletta’ Convention.)

THE CONSEQUENCE OF COMPETITIVE TENDERING

The initial reaction to competitive tendering by most archaeological units was to continue as before and not to put in bids for projects outside their traditional areas. The majority of archaeologists also tried to continue with the pre-competitive tendering working culture of providing a public service to the local community. However, other individuals recognised the full implications of competitive tendering and acted accordingly.

Among the first of these was the Oxford Archaeological Unit, who would actively compete for archaeological projects outside of Oxfordshire either because they were invited to put in bids by developers with whom they had already established a working relationship, or because it offered them an opportunity to grow and expand into new areas, even if that also involved undercutting and undermining the local archaeological unit. (The Oxford Archaeological Unit Newsletters for 1988 to 1990 reported on archaeological work they had undertaken in Oxfordshire, Gloucester, Berkshire, Buckinghamshire, Hampshire, Northamptonshire, Yorkshire, Somerset, Dorset, Surrey, Kent, Bristol and London (<https://library.thehumanjourney.net/view/year/> (accessed 2014), see particularly December 1990, page 28).) Once one or more archaeological units were putting in bids in this way then the remaining archaeological units had to do the same to survive, and this coupled with cutbacks in grant funding made competitive tendering inevitable.

A number of individuals also realised that developers would be willing to pay to minimising the cost of archaeological projects, and they set themselves up as independent archaeological consultants. (The developers of the Rose Theatre site had initially employed the Mills Whipp archaeological consultancy firm (set up in 1988 by two former Museum of London employees) to monitor the archaeological excavation on their behalf.) Established engineering companies such as Gifford and Partners, Ove Arup and Partners and CgMs Consulting also started to employ archaeologists to offer a complete service to both their civil engineers and the developers.

The role of these archaeological consultants was to represent the developers interests, manage and negotiate with various authorities on the developers behalf, and so minimise the overall costs for the developers. They presented the Rose Theatre excavation to

developers as the nightmare scenario, and something an archaeological consultant could prevent. Speaking at a one-day seminar held in Mold on 10th December 1992, Timothy Strickland the director of Gifford Archaeological Services described the position of archaeological consultants as thus:

‘I suppose that the first and most obvious explanation is that many of our clients see uncontrolled archaeology as a threat to their schemes and objectives. The key here is the word ‘uncontrolled’. Our clients wish therefore to see that it is professionally and effectively controlled on their behalf, along with all the other concerns.’

(Strickland 1993: 18)

So in effect archaeological consultants positioned themselves between the developer and the archaeologists and controlled the flow of information, they also saw the developer as the client and acted accordingly by ‘controlling’ the archaeological excavations on their clients behalf, primarily by encouraging competition between archaeological organisations based on ‘fixed cost bids’.

Around this time there was also considerable discussion about the regulation of the system, and the establishment and maintenance of appropriate academic standards. The general impression appears to have been that the pre-competitive tendering working culture would continue, and that archaeologists would regulate themselves, because they were all professional archaeologists.

‘The pressures are now such that ‘cowboy’ units, if such exist (which I doubt), will not prosper. A developer let down by his archaeologists will not employ them again; ‘curators’ will not refer such units to prospective developers; English Heritage will presumably not grant-aid their work; the profession (through the IFA or simple peer-pressure) will ostracise them.’

(Buteux 1991: 17)

A large number of interested organisations were consulted, though it appears that many archaeologists were in two minds about competitive tendering, and did not wish to express an opinion (Swain 1991). This inevitably led to a fragmented and an uncoordinated response to the introduction of competitive tendering.

Although it is a little difficult to work out the precise sequence of events, it appears that English Heritage passed on the duty of establishing academic standards to the Institute of Field Archaeologists (the IFA, set up in 1982), who produced a *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (Williams 1991: 35). The responsibility for enforcing these academic standards then appears to have been passed onto City or County Archaeologists at a regional level (Chadwick 1991: 55). However, their workload soon grew, and this responsibility was eventually passed down to local Archaeological Monitors (initially called ‘Curators’ for some reason) who had originally dealt with planning applications as part of the local archaeological units, and who were then moved to work for the local planning authority (Williams 1991: 34; see also Wainwright 1997). They were intended to monitor planning applications and ensure that planning conditions were met, as well as enforce academic standards by providing the developers with a list of locally approved archaeological organisations who would act as archaeological contractors, and any archaeological organisation which did not meet the appropriate academic standards would be removed from the list.

While national bodies were discussing regulation and standards, events were being superseded by individuals who were establishing the actual market on the ground. According to the proposed regulations developers were supposed to appoint archaeological organisations from the ‘approved contractors list’ provided by the local Archaeological Monitors, however, some developers soon started to ignore the local ‘approved contractors list’ and appointed archaeological organisations which they had worked with in other parts of the country, and this was particularly true on large projects where a number of archaeological organisations had already achieved ‘preferred contractor’ status with national developers or government agencies.

‘My understanding here is that, after PPG16, some curators [the local Archaeological Monitors] tried to enforce standards by listing acceptable organisations but, when this was challenged legally (or this was threatened) by anyone not listed, they had to back down and let anyone into the hat, then monitor end products. This was obviously more time consuming and, when pressure on workload came on, tended to be one of the first things which went by the board.’

(Steve Roskams, pers. comm., 2015 (lecturer, Department of Archaeology, University of York))

When Geoffrey Wainwright, who was Chief Inspector of Ancient Monuments for English Heritage during the time PPG16 was written, was interviewed in 1997 he said:

‘The standards are really set by the curators [the local Archaeological Monitors], and the curators are on the whole the archaeologists employed by local authorities. Now, if standards have dropped, it’s because the briefs [the WSI (Written Scheme of Investigation)] which are given to contractors [the competing archaeological organisations] are not sufficiently thought through.’

(Wainwright 1997: 9)

Unfortunately, this approach failed to acknowledge that there is a difference between setting standards and being able to enforce standards and the local ‘approved contractors list’ was the primary means that the local Archaeological Monitors had to enforce standards, and once that had gone the market was just left to develop.

Unless structured and regulated at the start a market will develop organically through social interaction between individuals, and once procedures and power structures have been established they become very difficult to change. The lack of effective regulation ensured that the procedures and power structures which did develop created a highly competitive laissez-faire market that to a very large extent was controlled by the developers or their archaeological consultants (Strickland 1993). This allowed the developers or their archaeological consultants to define themselves as the clients, instead of the local Archaeological Monitors who were intended to represent the wider interests of

the local community and future generations. With the developer defined as the client the product also changed from the traditionally Site Archive which was available to academics and future generations, to a more business friendly glossy report, although once the archaeologists had finished on site the developer usually loses interest in the final report. These changes were soon picked up on by the more commercial archaeological organisations, who then did what they could to please their clients.

However, even a laissez-faire market has to operate within certain parameters and be subject to market forces, and commercial archaeology did not. So, to use an analogy, if one brewery waters down its beer, then all the other breweries have to water down their beer to compete, unless the costumers (the clients) decide not to buy watery beer, therefore breweries have to compete on both cost and quality. The trouble with archaeology is that, once it has been established that the client is the developer, then that particular client is not interested in the quality of the product, that particular client is only interested in the cost, so the client does not provide the vital quality control required to make even a laissez-faire market function properly. Those who prosper within this type of market are not the best or the most efficient brewers, they are the brewers who can water down their beer the most and still get away with calling it beer.

Although it may be possible to deconstruct the way in which this commercial market operated on purely economic grounds (Walker 2001), it may be more enlightening to consider some of the tactics used to compete within this particular free-market environment (based largely upon personal experience).

The best tactic is to keep the initial 'fixed cost bid' as low as possible so as to win the contract, and this may be done by excluding as much as possible from the initial bid, so for example do not include the cost of any finds conservation, and then if finds conservation becomes necessary appeal for additional funds either from the developer, the local council or museum, or even from the general public (Participant Interview 19: 80.00). Once the contract has been won and signed it is then possible to add costs as unforeseen or unavoidable variations to that original contract. This includes any change or variation in the area to be excavated or any penalty clauses relating to access or when specific areas become available for excavation, however, if the developer has not noticed

it can also include the cost of finds analysis or even the cost of post-excavation, which can be kept low initially and then increased to more realistic levels after the contract has been signed (Participant Interview 19: 81.50). In some cases this additional work is unjustifiable on purely archaeological grounds, and it is just undertaken because it is then possible to charge the developer additional costs on top of the original 'fixed cost bid'.

Once the work has started the best tactic to employ is under staffing. So to give a purely hypothetical example, a Project Manager may put in a 'fixed cost bid' for a project of say ten people for two months, and to win the project this would have had to have been a low bid, so ten people for three or four months would probably have been a more realistic estimate to do a decent job. If the Project Manager wins the contract they then appoint a Project Officer to supervise the excavation. This Project Officer has full responsibility for 'delivery', however, the Project Officer has no control over staffing, so the Project Manager staffs the project with six relatively inexperienced archaeologists (who are willing to work for less so they can become experienced archaeologists). The six staff and the Project Officer then look at the site and realise they will never get the site finished in time, and so being young and enthusiastic archaeologists they dash about trying to get the site done before the developer destroys it. If they succeed the Project Manager gets congratulated because he/she has generated additional profit for the archaeological organisation on top of the other existing margins. If they fail then the Project Officer who has responsibility for 'delivery' gets called into the office to explain, with the clear implication that failure to 'deliver' is unacceptable (Participant Interview 19: 84.20).

This need to 'deliver' places considerable pressure on the Project Officer to 'compromise' on site. One way of doing this is to dig less, however, if the developer is paying for a 20x30 hole, the developer wants to see a 20x30, so what frequently occurs is a 20x30 hole is opened up with the machine, but only a 10x20 hole in the centre is archaeologically excavated (Participant Interview 19: 88.50). Another method is to machine more and dig less, so machining would go straight down to the top of the natural, and then any layers are in the section and all the negative features are in plan in the base of the trench, thus turning an urban excavation into a truncated rural excavation. It is also possible to adopt the opposite approach and simply dig until the money runs out and then either machine the rest down to natural or simply leave it for the developer to remove. It is now very rare to

see natural all over an urban site at the end of the excavation, and it would be interesting to see if the amount of hand excavated prehistoric archaeology and hand excavated late medieval and post medieval archaeology has declined on deeply stratified commercial sites over recent years.

However, the best way to ‘compromise’ is to do less recording on site, as this is time consuming, complicated and requires experienced staff who know what they are doing. So at the end of the excavation the Project Officer who has ‘delivered’ is then left with a pile of meaningless and contradictory archaeological records, which are actually more an *aide memoire* than an ordered, indexed and internally consistent Site Archive (Participant Interview 19: 90.00). The Project Officer can then either admit that the documentation is more or less meaningless, or they can cover it up by producing some form of site report, which may bare only a passing resemblance to the original archaeological evidence (Participant Interview 19: 90.00).

The academic quality of all of this archaeological documentation is supposed to be checked by the local Archaeological Monitors, who either accept it or reject it as a reliable Project Archive. However, the Archaeological Monitors primary role is to monitor planning applications and ensure that planning conditions were met, and they therefore have very little time to check archaeological documentation or archaeological Site Archives (Participant Interview 05: 55 - 61). If the Archaeological Monitors do reject the documentation then the archaeological organisation is not necessarily obliged to resubmit an improved version, especially if they will lose money re-doing the post-excavation work, so all the archaeological documentation is put in a box and forgotten about, and if anyone asks the project remains ‘ongoing’ (Participant Interview 19: 93.30).

This all placed emphasis upon not finding things because finding things costs money, and individual Project Officers were judged not upon the standard and accuracy of the archaeological records and the Site Archive, but upon how quickly they could finish a site and how much money they could make, and this produced a general tendency to see each archaeological site in isolation and all archaeological excavations as one-off commercial projects which should be completed as quickly and as profitably as possible (Participant Interview 13: 117.00). Those who prospered within this system were therefore not the

most competent or conscientious archaeologists, but were those archaeologists who were prepared to 'compromise', where 'compromise' meant doing whatever it took to please the developers and to complete the project within the limits of the original bid.

Unfortunately, as there will always be some individuals who were prepared to 'compromise' more than others, this just feed the ever-decreasing spiral of lower bids and falling standards.

PRESERVATION IN SITU

During the 1980's local planning departments (acting upon the advice of the local Archaeological Monitors or archaeological Planning Officers) could only ask developers for a limited amount of time on site to undertake an archaeological excavation as part of the planning permission (Aitchison 2012: 60.) If significant archaeological remains were uncovered during the archaeological excavation then the developer would be asked for additional time so the excavation could be completed, possible in conjunction with a local or national publicity campaign to put additional pressure on the developer. However, if the archaeological remains were significant enough to be 'preserved *in situ*' then this could only be done if the site was scheduled as an ancient monument, and as planning permission had already been granted the developer could then claim substantial compensation from either the government or the local council (AM and AA Act 1979: paragraph 10).

The idea which developed within English Heritage in the mid to late 1980's (and first put forward by Paul Gosling (Aitchison 2012: 56)) was therefore to provide local planning departments with some form of planning guidance which ensured that all archaeological evaluation and possible excavation was carried out *before* planning permission was granted, with emphasis placed upon 'preservation *in situ*', and only resorting to full archaeological excavation and 'preservation by record' when 'preservation *in situ*' was not possible. This initial idea was developed into a draft 'planning circular' by Graham Fairclough and Mike Parker-Pearson (both Inspectors of Ancient Monuments for English Heritage) in 1987 (Aitchison 2012: 56), and following a number of initial drafts this document was then shown to Geoffrey Wainwright (who was Chief Inspector of Ancient Monuments for English Heritage) and who's initial reaction was, according to Mike Parker-Pearson 'Oh good grief no - the last thing we want to do is make these views public because then DNH [Department for National Heritage] will get upset and tell us we're not to do it' (Aitchison 2012: 63). The draft 'planning circular' was then developed 'by stealth' (Aitchison 2012: 56, 63) as an internal draft document within English Heritage, and by July 1988 it had acquired the title 'Archaeology and Planning' (Aitchison 2012: 56, 64).

Throughout the 1980's English Heritage grant funding had been directed at specific archaeological projects of limited scope, duration and cost (Andrews and Thomas 1995: 185; Aitchison 2012: 63), however, in July 1988 in an attempt to encourage local planning departments to consider the archaeological potential of a site before granting planning permission Geoffrey Wainwright wrote a letter to the Chair of the Association of County Archaeological Officers stating that English Heritage would no longer fund projects where archaeological destruction could have been prevented in the planning stage (Aitchison 2012: 64; see also Wainwright 1997). This policy led to the destruction of a number of high profile archaeological sites with only limited archaeological recording, including the Queen's Hotel site in York (where English Heritage had 'offered a token £20,000 to fund recording, which was voluntarily matched by the developer' (Aitchison 2012: 58)), as well as sites in Winchester and Worcester (Aitchison 2012: 64), and at the same time Huggin Hill Roman Bath House in the City of London was also being excavated and would eventually be destroyed because the developers (Hammerson plc.) had already been granted planning permission. Then in early 1989 the site of Shakespeare's Rose Theatre was uncovered to the west of Southwark Bridge on Bankside in Southwark, and this generated a lot of national and international publicity and a popular political campaign which wanted the site preserved and put on public display.

On 21st February 1989 in the House of Commons Robert Maclennan MP asked the Secretary of State for the Environment 'what representations he had received from English Heritage concerning the archaeological discovery of the Elizabethan Rose theatre in Southwark; and if he will make a statement' (Hansard 1989a). This question was passed on by civil servants to English Heritage where Jane Sharman (who was Head of Conservation for English Heritage) asked Geoffrey Wainwright to provide additional information (Aitchison 2012: 58), and following a meeting with the Secretary of State for the Environment Nicholas Ridley MP in which Geoffrey Wainwright explained the background to the Rose Theatre excavation, he was told by the minister to 'go away and produce a document' (Aitchison 2012: 64). The draft 'planning circular' and the letter to the Chair of the Association of County Archaeological Officers were then passed on to Jane Sharman who combined and redrafted them while liaising with Harry Knottley (the lead civil servant at the Department of the Environment) to ensure that it would fit in with government policy (Aitchison 2012: 59). By September 1989 this draft 'had been rewritten again by civil servants' (Aitchison 2012: 56) following lobbying by the CBI and

British Property Federation (Aitchison 2012: 65), and though English Heritage wanted to emphasise the preservation of archaeological sites within the planning process (Aitchison 2012: 56), the Department of the Environment wanted to ensure that the cost of archaeological excavations was not the responsibility of either national or local government while also reducing the burden on developers by allowing them to choose who would undertake the archaeological work on their behalf (Aitchison 2012: 59), and in the view of Geoffrey Wainwright the government saw this document as ‘a response to a furore’ and ‘a wish to embrace the polluter pays principle’, and not as ‘a means to protect sites’ (Aitchison 2012: 65) which had been the original intention (see also Wainwright 1997). A full draft was then circulated to local government archaeologists as a pre-consultation document in October 1989, and following a number of responses the ‘planning circular’ was upgraded to ‘planning policy guidance’ to put it on an equal footing with other environmental planning guidance (Aitchison 2012: 64 - 65). The final draft of PPG16 was then put out for public consultation in February 1990 (Aitchison 2012: 57), and a more or less unchanged document was eventually published as *Planning Policy Guidance 16: Archaeology and Planning* on 21st November 1990 (Aitchison 2012: 59, 65), the day before Margaret Thatcher resigned as Conservative Prime Minister.

(For a detailed description of PPG16 see APPENDIX 2.)

In Wales a separate document entitled *Planning Policy Guidance 16: Archaeology and Planning (Wales)* was published in November 1991, and this became widely known as PPG16 (Wales) (Participant Interview 05: 20). This was an almost identical document other than the responsibility for organising and maintaining the Sites and Monuments Records (SMR) was delegated to the four Welsh Archaeological Trusts (PPG16 (Wales) 1991: paragraph 17), and the key Welsh bodies and organisations were listed in the appendix.

In Scotland an equivalent document entitled *National Planning Policy Guidance NPPG5: Archaeology and Planning* was published in January 1994, supported by *Planning Advice Note PAN 42: Archaeology*, and these documents became known as NPPG5 / PAN 42. These documents were slightly different to PPG16 and PPG16 (Wales), however, they did set out similar procedures and they did place emphasis upon ‘preservation *in situ*’ wherever possible.

THE CONSEQUENCE OF PRESERVATION IN SITU

PPG16 placed archaeology firmly within the planning process, and placed emphasis upon archaeology being considered early on in that process to avoid the situation on the Rose Theatre site. Most of the local planning authorities appear to have been ready for the change (Aitchison 2012: 65), and already had local Archaeological Monitors in place. The larger developers also adapted quickly, but smaller developers were slower to realise that archaeological remains could become a factor within their planning application, however, the overall effect was a rapid increase in the amount of archaeological work undertaken. To understand how PPG16 was initially interpreted in practice it may be best to see how the nature of archaeological work changed during the various stages of the planning process.

Initially there was a rapid increase in the number of Desk-Top or Desk Based Assessment Reports, which used the Sites and Monuments Record (now the Historic Environment Record or HER) and other documentary sources to identify what archaeological remains may be in the area of a proposed development. These assessments started off as useful documents which summarised the historical knowledge in a particular area. However, they quickly become 'cut and paste' projects which just repeated earlier information, and the increase levelled off after about 1993 (Darvill and Russell 2002), presumably as developers realised that they could save money by moving straight to an evaluation project.

Initially there was also a slow but steady increase in the number of evaluation projects, which were small-scale trial trench excavations used to establish the character and extent of any archaeological remains within the area of the proposed development. (Prior to the introduction of PPG16 archaeological rescue excavations only took place *after* planning permission had been granted which meant that if significant archaeological remains were found during the excavation then they could not be scheduled without the government having to pay compensation to the developer, which was the problem with the Rose Theatre excavation. After the introduction of PPG16 all archaeological excavations had to take place *before* planning permission was granted with emphasis placed upon preservation 'in situ', so small-scale evaluation projects were introduced to establish the exact character and extent of any archaeological remains within the area of the proposed

development before any further decisions were taken.) The resulting Evaluation Report (which usually contained some form of desk-top assessment) was then used by the local Archaeological Monitors to judge the importance of the archaeological remains and to prepare a detailed set of project specifications, WSI (Written Scheme of Investigation) or project ‘brief’ for any further archaeological work. Evaluation projects therefore became the standard response to planning applications in areas of known archaeological remains, particularly in urban environments, and the number undertaken increased until about 1996, before levelling off in line with the overall number of planning applications (Darvill and Russell 2002). However, some developers still remained reluctant to pay for an evaluation project without assurances of getting planning permission (Darvill and Russell 2002).

There was also a slower but steady increase in the amount of ‘preservation *in situ*’ and a corresponding decline in the number of evaluation projects that then went on to become full scale archaeological projects as developers, and particularly architects and civil engineers, grasped the implications of PPG16 and changed their standard engineering approach (Darvill and Russel 2002). Within PPG16 there was no precise definition of what constitutes ‘preservation *in situ*’, though it soon became a widespread and accepted practice to grant planning permission on a loss of less than 5% of the archaeological deposit to preserve 95% of what remained. This encouraged a change in the normal design and structural engineering of many buildings, and the gradual adoption of ‘archaeologically friendly’ standard engineering techniques as part of an established ‘mitigation strategy’, particularly on urban sites (Participant Interview 05: 85 - 90; Participant Interview 06: 16). This involved the increased use of concrete piling and reinforced concrete beams as the standard engineering technique for the construction of foundations (an *engineering solution*), with the number, type and location of the piles then open to discussion and negotiation. Other archaeological remains were either covered over by reinforced concrete capping, or by a raised ground level, or by avoiding the area entirely (a *redesign solution*), and there may also have been a decline in the number of basements and underground car parks, particularly in private buildings.

The role of the local Archaeological Monitors within the planning process was to strike a balance between the interests of developers and the interests of archaeologists, and decide what was or was not 'reasonable' (PPG16 1990: paragraphs 21 and 25). This normally meant that local Archaeological Monitors could intervene at two stages within the planning process:

1 Depending upon the location of the proposed development, the local Archaeological Monitors may ask the developer to undertake an evaluation project.

Initially this decision was based upon the local knowledge of the Archaeological Monitor, a search on the Sites and Monuments Record (now the Historic Environment Record or HER), and possibly the results of a Desk-Top Assessment Report, if the developer had commissioned one. However, developers soon demanded more specific criteria, and many local planning authorities started drawing up Constraint Maps which would indicate where archaeological remains were likely to be (Ove Arup with York University 1991). Presumably the developers required specific archaeological zones like other local authority development plans, so if the proposed development was inside an archaeological zone they had to worry about archaeology, and if the proposed development was outside an archaeological zone then archaeology was not going to be a problem.

Constraint Maps eventually developed into more sophisticated deposit models, particularly within urban areas. These deposit models attempted not only to indicate where archaeological deposits may be, but also attempted to prescribe a 'value' for the archaeological deposits depending upon certain criteria, usually preservation, spacing and deposit 'status', which was itself a reflection of the current research agenda, so the 'value' attached to the archaeological deposits was a changing reflection of its own time and circumstances (Barker 1999: 142). Unfortunately, deposit modelling could not predict the unexpected, and by prescribing a 'value' for the archaeological deposits the model only provides an excuse for not undertaking archaeological excavation in low 'value' areas where unexpected finds are most likely to occur, so in effect the model becomes a self fulfilling prophecy (see also Thomas 2013: 100).

Regardless of the criteria used, the decision on whether to undertake an evaluation project or not usually came down to the judgment and personal opinion of the local Archaeological Monitor, however, that decision may also have been subject to non-archaeological factors, which then shape the archaeological record. For example, the current needs of a town are usually more significant than its historical past, so economically depressed towns which were actively encouraging development were unlikely to encourage evaluation projects, and towns with an established tourist and heritage industry were likely to have already undertaken archaeological excavations, and were therefore more likely to undertake evaluation projects. On a more local level, the need to justify undertaking an evaluation project to a sceptical developer or their archaeological consultant may also mean that evaluation projects were only undertaken in locations where the local Archaeological Monitor was sure of finding significant archaeological remains, thus defeating the main objective of an evaluation project. Some Archaeological Monitors may also find that in certain circumstances questioning planning decisions or forcing developers to undertake archaeological excavations may not endear them to their direct employers, the local council (Participant Interview 14: 80.30).

This was not the case in Wales where, following consultations with CADW and the Welsh Archaeological Trusts, PPG16 (Wales) was replaced in December 1996 by *Welsh Office Circular 60/96: Planning and the Historical Environment: Archaeology*, which became widely known as WOC 60/96 or just 60/96 (Participant Interview 05: 36 - 38).

Welsh Office (1996) *Welsh Office Circular 60/96: Planning and the Historical Environment: Archaeology*. Cardiff: Welsh Office.

This was a simplified version of PPG16 (Wales) with one important difference, in paragraph 21 of PPG16 (Wales) it stated that if the results of the Desk-Top Assessment Report indicated that important archaeological remains exist then 'it is reasonable' for the local planning authority (and its local Archaeological Monitors) to request an archaeological Evaluation Report, however, in the equivalent paragraph in WOC 60/96 this was replaced by 'the planning authority *should* request the prospective developer to arrange for an archaeological field evaluation to be carried out before any decision on the

planning application is taken' (WOC 60/96: paragraph 13) (*my emphasis*). This one change made the situation in Wales far clearer and gave the Welsh Archaeological Monitors far more control within the early planning process, as well as allowing them to continue to act specifically in the interests of the archaeology instead of having to decide what was or was not 'reasonable' (Participant Interview 05: 40 - 46). As one of the interview participant put it, 'that's a huge thing, because that takes the argument out of it' (Participant Interview 05: 44), whereas a decision on whether to undertake an evaluation project in England under PPG16 or in Scotland under NPPG5 / PAN 42 would still depend upon individual Archaeological Monitors and their willingness to confront developers and their archaeological consultants.

2 Depending upon the results of the evaluation project and the importance of the archaeological remains found, the local Archaeological Monitors may ask the developer to make further provision for archaeological remains as part of a graded response.

Although the precise sequence of events varied with each archaeological project, in general, if it was decided that further archaeological work was required then the local Archaeological Monitor (possibly in conjunction with the archaeological organisation that had completed the Evaluation Report) would produce a detailed set of project specifications or WSI (Written Scheme of Investigation) which would also contain the local report and archive requirements set by the City or County Archaeologist (Participant Interview 10: 70 - 72; Participant Interview 11: 67 - 72, 101 - 102; Participant Interview 18: 37.00). This project 'brief' would then have to be agreed by all parties before being put out by the developer for competitive tenders.

The decision on whether to proceed with further archaeological work and what that archaeological work would entail was therefore supposed to be a balanced judgement, and subject to negotiation and voluntary agreement. The Archaeological Monitor had to weigh the relative importance of the archaeological remains against the need for the proposed development, and come to a decision which could be justified, defended and was able to withstand the legal test of reasonableness. The developers on the other hand regarded archaeology as a contamination problem (though they are usually too polite to

admit this) and something they have to go through, which was why on large projects they hire archaeological consultants to lessen the cost and the inconvenience. The archaeological consultants represent the interests of the developer, and they use both the authority of the developer (as the paying client) and their archaeological knowledge within any negotiations with the local Archaeological Monitor. As archaeological consultants have more incentive to fight for the interests of their clients, the outcome of these negotiations usually depended upon the determination of the local Archaeological Monitor. (From personal experience, this can frequently lead to an unsatisfactory compromise.)

With the gradual introduction of ‘archaeologically friendly’ standard engineering techniques the cost of ‘preservation *in situ*’ became cheaper and easier than the cost of ‘preservation by record’. The response to any archaeological remains then became ‘preservation *in situ*’, regardless of their significance, and the amount of ‘preserved by record’ shrunk to areas which would be removed by large structural features within the development, such as basements or underground car parks. So what was intended to be a graded response depending upon the importance of the archaeological remains soon became a standard ‘mitigation strategy’, the details of which were subject to negotiation, and the very reason for undertaking an evaluation project (to provide information for a graded response) had therefore been taken away. (Many developers have their ‘mitigation strategy’ prepared before the evaluation project takes place, and are then very reluctant to change it after the evaluation project had finished.)

The adoption of standard mitigation strategies also produced an additional option between ‘preservation *in situ*’ and scheduling. If the archaeological remains were considered sufficiently important or unique and/or too vulnerable to subjected them to a standard mitigation strategy, then the Archaeological Monitor may feel justified in insisting upon an ‘open area’ archaeological excavation and ‘preservation by record’. This could include areas such as medieval street frontages or river frontages, as well as cemeteries and graveyards.

Problems also occurred in ensuring compliance with any voluntary agreement, as it was not unknown for developers or their sub-contractors to remove archaeological deposits or

change the agreed piling plan after the archaeologists have left the site. In these cases any ‘mitigation strategy’ was seen as a set of guidelines or ‘desirable aims’ which could be immediately abandoned in the face of financial or engineering necessity or impending project deadlines. Local Archaeological Monitors occasionally included an archaeological watching brief to ensure that this did not happen, but the most these watching briefs could achieve was to inform the Archaeological Monitors that the ‘mitigation strategy’ had been ignored.

However, the use of standard ‘mitigation strategies’ was not always the case. The economic conditions in the mid 2000’s meant that the cost of the archaeological excavation was relatively cheap when compared with the financial returns from large rural housing projects, particularly those on green field sites in some parts of southern England. A number of large construction companies therefore preferred complete archaeological excavation of entire site and the removal of all archaeological evidence as quickly as possible, as this meant that there would be no redesign delays or costly engineering problems, and it also allowed them unrestricted use of all the available land, as well as free access to the entire area during the construction process (Participant Interview 05: 85 - 90). This situation was the direct result of specific economic circumstances, and following the economic downturn in 2008 there was a rapid return to standard ‘mitigation strategies’ in an attempt to spend as little as possible on archaeological excavation (Participant Interview 05: 85 - 90).

The overall effect of PPG16 has therefore been to reduce the majority of urban archaeological projects to a number of small evaluation trenches (urban evaluation trenches are usually 4.00m by 4.00m or 2.00m by 2.00m, depending upon the anticipated depth of stratigraphy and the need to step in at 1.20m), and the archaeological value of these trenches is at best questionable. Firstly, because the location of these evaluation trenches has now become subject to negotiation, as developers prefer archaeological excavations to be carried out in areas where piling is not going to take place (an area which has been archaeologically excavated has to be backfilled with compacted rubble crush before it can be piled, and that costs money). So evaluation trenches may be placed, not in areas of archaeological potential, but in areas which will not be affected by the development, again defeating the main objective of an evaluation project, and there is also

a danger on some constantly changing construction projects that so many isolated evaluation trenches or ‘developer test pits’ are dug that the entire sites can become ‘trenched to death’. Secondly, because these trenches are large enough to identify that there was something there, but are too small to tell with any degree of certainty what that something may have been (Participant Interview 04: 24). So for example, an evaluation trench may contain a corner of a possible clay floor and a post hole, but from the little evidence available it is impossible to say whether this was a structure or not, let alone its size, orientation or method of construction. The resulting archaeological documentation is therefore difficult to analyse as it consists mainly of sections from isolated areas and no overall plans.

The long-term effects of ‘preservation *in situ*’ still remain unknown, and will be impossible to judge because it will be impossible to tell if any decay occurred before or after the archaeological stratigraphy was ‘preservation *in situ*’. When buried, archaeological remains will decay until they reach a point of equilibrium with the surrounding buried environment. The amount of decay will therefore depend upon the ground conditions, and any change in those ground conditions has the potential to re-start decay. Once re-started that decay cannot be restored, only the ground conditions can be restored, and that may not be enough to stop the decay (Kenward and Hall 2001; Southport Group 2011b: section 2.2.7). This is particularly true of waterlogged organic deposits, as any alteration in ground conditions or the water level may re-start irrevocable decay. If done properly the long-term cost of monitoring of the ground conditions may itself become prohibitive, and may become more expensive than excavation.

2.1 ARCHAEOLOGICAL EXCAVATION AND RECORDING

The introduction of PPG16 had little initial effect upon the working practices of professional archaeology as most archaeological units attempted to maintain the existing working culture. However, both competitive tendering and preservation *in situ* did bring gradual change to the basic underlying structure of professional archaeology, and more fundamental change then occurred as specific individuals recognised the full implications of developer funding and saw the new emerging commercial structure as an opportunity to gain influence and make money. Although the first significant change that occur after the introduction of PPG16 had nothing to do with either competitive tendering or preservation *in situ*.

Like most archaeological units the Museum of London (Department of Urban Archaeology) coped with constantly changing staffing requirements by operating a last-in first-out staffing policy, with individual archaeologists employed on temporary two or three month contracts which after two years continuous employment would automatically become permanent contracts. In 1987 the Museum of London (Department of Urban Archaeology) had taken on large numbers of archaeologists (*myself included*) to cope with the building boom caused by the deregulation of the financial markets, and by 1990 numbers had risen to over 200 archaeologists most of whom were by then on permanent contracts, with an additional 100 to 150 archaeologists employed by the Museum of London (Department of Greater London Archaeology). However, as the building boom started to slow down staff numbers had to be reduced, and once those on temporary contracts had been laid off those on permanent contracts had to be made redundant, and these individuals were entitled to redundancy pay related to their length of service. So the more permanent staff that were made redundant, the more money had to be paid out in redundancy, and the more money that had to be paid out in redundancy the more staff had to be laid off and the larger their redundancy payments got. From 1990 to 1991 the Museum of London (Department of Urban Archaeology) went from over 200 archaeologists to less than 40, and eventually the Museum of London (Department of Urban Archaeology) and the Museum of London (Department of Greater London Archaeology) had to be merged and restructured and in December 1991 they became the

Museum of London Archaeology Service (MoLAS) (Participant Interview 14: 22.00; Participant Interview 15: 5.00).

This had a number of entirely unintended consequences, the first of which was to send large numbers of very experienced Museum of London (Department of Urban Archaeology) trained urban archaeologists out onto other urban archaeological projects throughout Britain and the rest of Europe, some of whom ended up in places as far apart as Verona, Dortmund, Trondheim, and eventually even Çatalhöyük in central Turkey. These individuals took with them not only the Museum of London (Department of Urban Archaeology) excavational methodology, but also the second edition *DUA Site Manual* published in 1990, and perhaps more importantly the red ring-binder third edition *MoLAS Site Manual* published in 1994, and this publication then became the basis for most of the Documentation System used on urban archaeological projects in Britain (Participant Interview 13, 2014: 5.00).

Another consequence of the collapse of the Museum of London (Department of Urban Archaeology) was the establishment of Pre-Construct Archaeology in September 1993 by a former DUA Senior Archaeologist. This was an entirely commercial archaeological organisation which took full advantage of both competitive tendering and the gap in the market left by the temporary decline of the Museum of London to employ former DUA site staff to undertake urban archaeological projects in the London area. The problems of finds analysis and post-excavation were solved by sub-contracting most of this work to independent specialists, a number of whom were also former Museum of London staff (Participant Interview 11: 81). Around this time a number of other fully commercial archaeological organisations were also being established in other locations around Britain, and these included AC Archaeology set up in Wiltshire in 1991 and AOC Archaeology set up in Scotland also in 1991.

The gradual change to the basic underlying structure of professional archaeology had its greatest and most immediate effect upon the large rural infrastructure projects which had previously been under-funded semi-professional excavations. These quickly became fully professional archaeological excavations, mainly for health and safety reasons, and given the large number of archaeologists involved they soon became very large and very

profitable contracts. However, only a small number of regional archaeological units had the organisational ability and management experience to cope with these large integrated projects, and this reduced the number of archaeological units who could put in realistic bids for the largest of these contracts to just two, the Oxford Archaeological Unit, and to a lesser extent the Trust for Wessex Archaeology (which undertook a large number of road construction projects during the 1990's (Participant Interview 10: 103 - 105)). Having established reputations for reliability these two archaeological organisations were then able to achieve 'preferred contractor' status with a number of major developers, gravel extraction companies and in particular government organisations such as the Highways Agency, and this allowed them avoid direct commercial pressure and to grow and expand rapidly (see also Morris 1998).

The other change to the basic underlying structure of professional archaeology occurred as a direct result of the introduction of preservation *in situ* and the corresponding increase in small evaluation projects and watching briefs. The small size of these archaeological projects reduced the risk of cash flow problems and this made it possible for a number of very small and very commercial archaeological organisations to be set up to undercut existing archaeological units, usually by former Site Supervisors or other mid level employees.

2.1.1 THE DEVELOPMENT OF COMMERCIAL ARCHAEOLOGY (The mid 1990's to early 2000's)

By the mid 1990's the gradual changes in the basic underlying structure of professional archaeology were starting to shape the development of commercial archaeology, and the defining characteristics were no longer the specific geographical area covered, regional rural archaeological units or town based urban archaeological units, but the size of the archaeological organisation.

This produced an emerging commercial structure with three very large commercial archaeological organisations, the rapidly recovering Museum of London Archaeology Service which initially dealt with mainly medium and large sized urban archaeological projects in the London area, and the Oxford Archaeological Unit and the Trust for Wessex Archaeology which competed for both rural and urban archaeological project throughout southern and central England, and occasionally co-operated with each other, along with other archaeological organisation on large infrastructure projects such as the Channel Tunnel Rail Link (CTRL) in Kent (which later became referred to as High Speed 1 (HS1) and was eventually split into HS1 (section 1), the southern section, and HS1 (section 2), the northern section). The only thing that prevented these archaeological organisations from growing even larger was the cost of 'away digs'. Any excavation which was too far away to commute to on a daily basis had to become an 'away dig', where the archaeologist were provided with overnight accommodation, usually bed and breakfast, while they were working on a site. The cost of paying for this accommodation came out of the project budget, so any 'away dig' was financially prohibitive unless it was being subsidised as a loss-leader, and therefore the site was far more likely to go to a local archaeological unit. The cost of 'away digs' thus initially maintained an element of territoriality.

At the other end of the emerging commercial structure were an increasing number of very small and very commercial archaeological organisations which dealt with small and occasionally medium sized archaeological projects at a local level, and the archaeological competence of these small commercial archaeological organisations could vary depending upon the commercial priorities of the individuals in charge.

The rest of the commercial structure consisted of medium sized archaeological units which had been set up before PPG16 and which still operated at a local or regional level. These archaeological units had to compete with neighbouring archaeological units, as well as occasionally with the larger commercial archaeological organisations who were either already ‘preferred contractors’ or who could afford to subsidise archaeological projects to establish themselves within an area, and they also had to compete with the very small commercial archaeological organisations who could undercut them on small or possibly medium sized archaeological projects. To add to these problems competitive tendering had also increased the overall administration costs by creating a new management level (Project Manager) and a bureaucratic system of preparing and administering bids, negotiating contracts and dealing with developers, all of which had to be paid for out the profits from other archaeological projects.

This put these medium sized archaeological units under increasing financial pressure, and many of these archaeological units had low capital reserves which also made them vulnerable to cash flow problems, so the loss of a single large archaeological project or a developer going bankrupted or refusing to pay on time could precipitate a crisis. At some point between the mid 1990’s to the mid 2000’s many medium sized archaeological units went through some form of financial crisis or council reorganisation, and these archaeological units were then forced either to closed down, merge or become commercial archaeological organisations (for a specific example see Turner 2000).

The change from a local archaeological unit to a commercial archaeological organisation usually occurred by replacing the existing management either with external commercial managers or with internal middle level staff who saw this as an opportunity to gain promotion (Participant Interview 19: 104.00). The staff reorganisations that inevitable followed these changes created hierarchical management structures intended to impose strict financial control and clear lines of responsibility, with a high percentage of turn over going to support the new Senior Managers, who were now able to set their own pay and conditions (Participant Interview 19: 105.00). Under these Senior Managers were Project Managers who prepared and administered bids for individual archaeological projects, dealt with developers and Archaeological Monitors, and set project budgets (and staffing numbers) (Participant Interview 10: 98 - 100; Participant Interview 11: 98 - 100). The

actual archaeological excavations were then passed onto Project Officers (formerly Site Supervisors) who were responsible for completing individual archaeological projects, and finally the site staff or Project Assistants (formerly Site Assistants) who maintained this staff structure by working on low paid short-term contracts. These low paid short-term contracts were themselves justified and sustained by the ready availability of large numbers of inexperienced new graduates, and this created a constant turnover of site staff with the inevitable loss of specialist excavation and recording skills, particularly when dealing with complex urban stratigraphy. Many of these medium sized commercial archaeological organisations appear to have ended up running on 40% - 60% overheads or on-costs, and none of that money was spent on actually doing archaeology. (The full public accounts for all archaeological charities for the previous five years are available from the Charity Commission website (<http://www.charity-commission.gov.uk/showcharity/> (accessed 2011)), and all private company accounts are available from the Companies House website (<https://beta.companieshouse.gov.uk/> (accessed 2015)).)

The development of commercial archaeology and these new hierarchical management structures also changed the basic archaeological methodology used on site. As commercial archaeological organisations now undertook a wide variety of rural and urban archaeological projects the archaeological methodology used was no longer adapted to specific local working conditions, but instead became a reflection of the working culture of the individual archaeological organisation.

The working culture of the more successful commercial archaeological organisations was based upon completing archaeological excavations as quickly and as efficiently as possible, and this could best be achieved by cutting back on expensive and time consuming on-site recording. The individual Documentation Systems that developed within these commercial archaeological organisations were therefore far more generic, and were based roughly around the *MoLAS Site Manual* but without using a strict Single Context Recording System, instead they used a wide variety of both rural and urban excavational methodologies depending upon individual circumstances and the time available, along with electronic surveying equipment (EDM's) and eventually GPS and GIS to produce precisely positioned Multi Context Plans (Conolly and Lake 2006). This

frequently created problems when rural recording techniques and occasionally rural excavational techniques were used on urban archaeological projects, and the importance of establishing a definitive stratigraphic sequence on site was largely lost.

However, the move away from large open area excavation, and towards small trial trenches and ‘preservation *in situ*’ also meant that less specialist urban excavation and recording skills were required by, or were expected from the site staff. This ultimately led to a general decline in both the standard of archaeological recording and the importance of the Site Archive, with all on-site problems pushed into post-excavation. The emphasis therefore gradually changed from archaeological recording and the production of academic publications to archaeological interpretation and the production of well presented client reports which fulfil developer expectations.

In 1998 the Oxford Archaeological Unit and the Trust for Wessex Archaeology set up Framework Archaeology as a joint venture company specifically designed to undertake archaeological projects for the British Airports Authority (BAA), initially over a five year period. This involved very large rural excavations at Perry Oaks, Heathrow (22 hectare) which started in 1999, Stansted Airport (30 hectare) which started in 2000, and Heathrow Terminal 5 (50 hectares) which started in 2002, as well as smaller archaeological evaluations at Gatwick, Southampton and Edinburgh Airports. As these were large rural projects the British Airports Authority’s archaeological consultants proposed adopting ‘a particular archaeological philosophy’ that was ‘concerned with understanding how people inhabited past landscapes: archaeology as a study of people rather than deposits or objects’. This involved developing a computer based recording system which placed ‘great emphasis on interpretation in addition to recording, and developing a historical narrative as the site is excavated’ (All quotes taken from <http://www.framearch.co.uk/about.html> (accessed 2011); see also Andrews, Barrett and Lewis 2000).

This theoretical approach was a version of Reflexive Archaeology which was first proposed in 1997 by Professor Ian Hodder in the September issue of *Antiquity*, and then developed in his book *The Archaeological Process: An Introduction* (1999), following the initial stages of a particularly complex urban research excavation he directed at

Çatalhöyük in central Turkey. Although a number of the key elements were missing Reflexive Archaeology was derived more or less intact from the concept of *reflexivity* as used by anthropologists and sociologists in conjunction with a number of different qualitative research methodologies (Willig 2001: 10). Reflexive Archaeology therefore probably originated from a particular archaeological approach which saw archaeology as a subdivision of anthropology, with its reliance upon understanding human behaviour through observation and written description (Atkinson 2007; Hammersley and Atkinson 2007; Davies 2008). (From 2002 Professor Ian Hodder was the Dunlevie Family Professor of Anthropology at Stanford University, California.) This particular view was held primarily by academic prehistoric archaeologists, who placed considerable emphasis upon artefacts and the interpretation of artefacts as a product of material culture, and this archaeological approach then has a tendency to see all archaeological projects as single self contained experiments with specific short-term aims and objectives, rather like an anthropological case study which has no real ‘burden of proof’ only ‘reader evaluation’ and an appropriate or an inappropriate research design. This theoretical approach therefore rejected archaeological recording as a mechanical process and instead encouraged direct interpretation by archaeologists on site during excavation, however, this tended to produce multiple contradictory versions of the excavation, many for which were then superseded by later discoveries or further analysis, so it became very difficult to reach any form of conclusion, and the Site Director was then free to present whatever interpretation they preferred without feeling constrained by the Site Archive.

This fitted in with the general approach being adopted by many of the commercial archaeological organisations in the early 2000’s, and to a certain extent provided academic justification for a policy which was primarily intended to save time and make money. However, although the computer based recording system developed by Framework Archaeology was reputed to have been very impressive, the high level of on-site interpretation was perhaps only suited to specific very well funded rural projects with limited vertical stratigraphy and limited time constraints, and little interest was expressed in continuing with this theoretical approach after the project was completed (<http://www.wessexarch.co.uk/blogs/niall-donald> (accessed 2011)), and the general theoretical approach at Çatalhöyük was also gradually changed by a number of former DUA staff.

In 1999 the Oxford Archaeological Unit and the Trust for Wessex Archaeology also set up Oxford Wessex Archaeology as another joint venture company this time specifically designed to undertake large road and infrastructure projects. Given the size and complexity of these projects this joint venture company was and still is the only archaeological organisation in Britain that has the ability, the resources and the reputation to allow the developers to fulfil their planning conditions on time and on budget. The commercial archaeological organisations which have therefore benefited most from competitive tendering had done so by specialising in the most profitable and least skilled sector of the market where they are subject to virtually no commercial competition. (It will be interesting to see who will receive the highly profitable archaeological contracts for HS2, the tried and tested Oxford Wessex Archaeology or a large number of smaller archaeological organisations.)

2.1.2 THE CONSOLIDATION OF COMMERCIAL ARCHAEOLOGY (The mid 2000's to early 2010's)

By the mid 2000's commercial archaeology had become firmly established, and the original system of local archaeological units providing a public service to the local community and an accurate academic record of the archaeological stratigraphy for future generations had been superseded by commercial archaeological organisations providing developers with a wide range of cost effective 'archaeological solutions' to their archaeological problems. This change could perhaps best be charted and explained by following the re-naming and re-branding of the main regional and town based archaeological units.

In 1991 the English Heritage funded Central Excavation Unit became the Central Archaeological Service, given the timing this change may have been the result of an English Heritage policy decision following the Rose Theatre excavation.

In 1999 the Central Archaeological Service merged with the Ancient Monuments Laboratory to become the English Heritage Centre for Archaeology.

Both the Central Excavation Unit and the later Central Archaeological Service remained grant funded English Heritage organisations and never undertook any direct developer funded excavations.

In 2001 the Oxford Archaeological Unit became first Oxford Archaeology South and then Oxford Archaeology.

Around 2001 the Trust for Wessex Archaeology became Wessex Archaeology, (although, following a protracted telephone conversation, they did seem very reluctant to say exactly when that change actually occurred, however, in *The Concise Oxford Dictionary of Archaeology* published in 2002 they are referred to as Wessex Archaeology.)

In March 2004 the Winchester Archaeological Unit closed down after losing a large archaeological project to Oxford Archaeology. Dr David Johnston, a former tutor at Southampton University criticised commercial archaeology for undercutting the council services 'local background knowledge will be lost' he said 'the cheapest alternative is not necessarily the best' (<http://www.bajr.org/diggermagazine/nov2003> (accessed 2011)).

In February 2005 Wessex Archaeology changed its official trading name from Trust for Wessex Archaeology to Wessex Archaeology (see Companies House website).

In 2006 the Norfolk Archaeological Unit became NAU Archaeology, a subsidiary of NPS Property Consultants Ltd, a commercial property services company wholly owned by Norfolk County Council.

In February 2010 Oxford Archaeology finally changed its official trading name from The Oxford Archaeological Unit Limited to Oxford Archaeology (see Companies House website).

The larger archaeological organisations eventually solved the problem of ‘away digs’ by either acquiring or setting up regional branch offices to deal with medium and large sized archaeological projects at a regional level. This allowed these archaeological organisations to transfer staff and expand the number of archaeological projects undertaken, while still minimising additional administration costs and some of the post-excavation costs.

In 2001 the Lancaster University Archaeological Unit became Oxford Archaeology North, and in 2008 the Cambridge Archaeological Unit became Oxford Archaeology East. Oxford Archaeology also set up two branch offices in France (Caen and Montpellier) following an excavation at the castle in Mayenne in 1996 to 1998.

In 2010 Oxford Archaeology as a whole had 402 employees and an income of £15.09 million, interestingly it also had an expenditure of £16.23 million in the same period.

In 2009 the Sheffield University Archaeological Unit became Wessex Archaeology Sheffield, and Wessex Archaeology also set up branch offices in Rochester and Edinburgh, including a large maritime archaeology department.

In 2010 Wessex Archaeology had 179 employees and an income of £6.51 million, less interestingly it also had an expenditure of £6.69 million in the same period.

The York Archaeological Trust still remains the York Archaeological Trust, thanks in part to additional funds from the JORVIK Viking Centre which was built upon the site of the Coppergate excavation, and the long-term commitment to archaeological excavation

established by York's classification as an Areas of Archaeological Importance under the *Ancient Monuments and Archaeological Areas Act 1979*.

In 2010 the York Archaeological Trust had 107 employees and an income of £4.51 million and an expenditure of £5.19 million in the same period.

As an example of a typical medium sized archaeological unit, in 2010 the Glamorgan Gwent Archaeological Trust had 28 employees and an income of £872,000 and an expenditure of £885,000.

In 2011 Pre-Construct Archaeology had branch offices in London, Durham, Winchester and Cambridge, although the last two appear to be very small consultancy operations.

In 2011 the Museum of London Archaeology Service (MoLAS) became the Museum of London Archaeology (MOLA).

(All financial figures taken from the <http://www.charity-commission.gov.uk/showcharity/html> (accessed 2011) website which shows both a summary and the full public accounts of all charities for the previous five years. As a new charity the accounts for Museum of London Archaeology were unavailable at the time of writing (2011). From 2015 all company and officer details, including the latest company accounts, are available free of charge from the Companies House website <https://beta.companieshouse.gov.uk/> (accessed 2015).)

2.2 ARCHAEOLOGICAL POST-EXCAVATION AND INTERPRETATION

The introduction of developer funding, competitive tendering and PPG16 had a more complicated effect upon post-excavation projects due to both the continuation of existing funding arrangements and the length of time it took to complete large post-excavation projects.

The relatively sudden end of the Manpower Services Commission schemes in the late 1980's left a large number of abandoned or partially finished post-excavation projects without any direct funding (Participant Interview 01: 5, 22; Participant Interview 05: 31 - 32; Participant Interview 06: 8 - 9, 14; Participant Interview 10: 12; Participant Interview 16: 4.00, 23.00), and the transition from grant funding to developer funding had also left a large number of non-developer funded archaeological projects dependent upon existing grant funding arrangements until they could work their way through to final publication (Participant Interview 14: 29.00). All of these abandoned or partially completed post-excavation projects added to local publication backlogs, particularly in areas that had experienced a building boom in the mid to late 1980's. Both English Heritage and CADW therefore agreed to established a number of grant funded Backlog Programs specifically designed to identify and complete nationally or regionally important non-developer funded post-excavation projects as quickly and as efficiently as possible (Participant Interview 10: 15; Participant Interview 16: 4.00, 22.00), and the largest of these was probably the Greater London Backlog Program which started in 1991 (<http://www.molas.org.uk/projects/annualReviews.asp?aryear=2003> (accessed 2014); Participant Interview 14: 27.00; Participant Interview 15: 4.30).

To cope with this additional grant funding and deal with their own post-excavation backlogs many of the larger archaeological units set up specialist post-excavation teams made up of archaeologists with previous post-excavation experience or specific writing skills (Participant Interview 10: 10, 15; Participant Interview 16: 4.00), and these specialist post-excavation teams then developed their own internal post-excavation policy documents which established specific post-excavation procedures and a consistent in-house style, design and format for each publication (Participant Interview 10: 17 - 20, 41,

53; Participant Interview 11: 82), as well as the internal quality control documents required to support bids for larger commercial tenders (Participant Interview 10: 18, 22).

However, the ever-increasing size and complexity of post-excavation projects meant that many medium to large sized post-excavation projects could take five to ten years to complete and very large urban post-excavation projects could take considerably longer, and this project length exacerbated existing project management problems and highlighted the need both to focus research upon the production of an Archaeological Publication and to organise or structure post-excavation projects so that they eventually reached to some form of completion.

2.2.1 THE DEVELOPMENT OF SELECTIVITY (The 1990's)

In an attempt to directly address these project management problems and ensure the most effective use of their grant funding English Heritage had published *Management of Archaeological Projects* in 1989 which was intended to clarify the terms used in both the Frere Report and the Cunliffe Report, and also 'set out the role that documentation should play in an archaeological project' (MAP2 1991: 1). This document was then revised, updated and extended in 1991 with the publication of a 41 page document entitled *Management of Archaeological Projects* (2nd edition) which aimed to build upon the basic mechanisms outlined in the earlier Cunliffe Report and establish a formal project management procedure with regular critical reviews for all medium to large scale archaeological projects, and this document became widely known as MAP2.

English Heritage (1991) *Management of Archaeological Projects*. (2nd edition)
London: English Heritage and the Historic Buildings and Monuments Commission
(England).

(For a detailed description of the MAP2 see APPENDIX 2.)

The publication of MAP2 was quickly followed by the publication of *Archaeological Publication, Archives and Collections: Towards a National Policy* by the Society of Antiquaries, with the support of the Museums Association. This followed a one-day seminar in May 1991 which set up three separate Working Parties to discuss archaeological publication, the curation of archaeological records and the care of archaeological collections, as well as the wider implications of both PPG16 and MAP2. These Working Parties eventually produced a 4 page report which was published as a British Archaeological News Supplement in 1992, and which has since become known as the 'SoA Report'.

Carver, M.O.H. *et al.* (1992) 'Archaeological Publication, Archives and Collections: Towards a National Policy', *British Archaeological News Supplement* 7(2).

The SoA Report accepted MAP2 as a starting point, but anticipated the fast deterioration in archaeological standards and the decline in the number of archaeological projects that would go all the way to full publications. It then attempted to speed up and simplify the archaeological process by first questioning and then rejecting the concept of 'preservation by record' (Carver 1992: section 2.2) (Jones 2001: section 2.3.5) in favour of the creation of 'an accessible Site Archive' and the publication of a Summary Report which corresponded to the minimum publication requirements outlined in MAP2, along with the selective publication of 'some aspects' of the site or a number of related sites (Carver 1992: section 2.3). This would be linked to the annual publication of a number of regional archaeological reviews or 'Annual Compendiums' which would contain a complete list of all archaeological fieldwork undertaken that year, the Summary Reports from completed excavations, including the location of both the Site Archives and the Research Archives, and finally additional articles which were intended to provide an overview of selected themes (Carver 1992: section 2.3.5). The solution to the existing and developing problems proposed by the SoA Report was therefore to go straight to the completion of a Summary Report (Carver 1992: section 2.3), thus making it possible to miss out much of the fundamental post-excavation work, and so speeding up and simplifying post-excavation projects but without considering the accuracy of the resulting archaeological information. After much discussion, which included criticism of both the content of the report and 'the way in which the document had been produced and circulated' (Jones 2001: section 2.3.5) the radical approach put forward in the SoA Report was quietly dropped (Jones 2001: section 2.3.5), even though a number of the recommendations it made eventually occurred, though not through academic design, but as a result of commercial pressure and cost cutting.

Although both MAP2 and the SoA Report had attempted to shape the archaeological process, only MAP2 succeeded in influencing the emerging commercial structure for a number of not necessarily obvious reasons. Unlike earlier policy documents which had expressed vague intentions or desirable outcomes MAP2 was a clear and precise document which established a common structure and a formal project management procedure that

still remained flexible enough to be adapted to individual circumstances (Participant Interview 10: 21 - 22). It also provided sufficient control and accountability to allow for both internal monitoring and more effective project planning, and external monitoring by project sponsors and other interested parties, thus ensuring that archaeological projects were carried out efficiently and cost effectively and conformed to acceptable standards (Participant Interview 10: 21 - 22). However, more importantly MAP2 was published a few months after the introduction of PPG16 and provided practical guidance within a rapidly changing environment, so many archaeological units adopted and strictly followed MAP2 in its entirety in the hope that this would prevent them from being singled out for criticism. By 1995 over 3,000 copies of MAP2 had been distributed in the UK and abroad, and it had been widely accepted as standard practice by most archaeological units (Andrews and Thomas 1995: 188).

Even though MAP2 quickly became established as standard practice (Participant Interview 10: 20), the same willingness to adopt MAP2 and the strict adherence to the guidelines it presented also ensured that it quickly became institutionalised, and what had been seen as a set of optional guidelines soon became a bureaucratic process applied to all archaeological project regardless of size or complexity, or as one of the interview participants put it, 'people working to a formula' (Participant Interview 04: 29). This particularly applied to the increased use of management documents, which were mechanically produced as if following the guidelines and going through the process would automatically ensure both the standard and the accuracy of the results, and the completion of management documents soon went from being a means to an end to becoming an end in itself (Participant Interview 10: 23 - 24).

MAP2 had also been specifically designed to allow English Heritage to monitor and control medium to large scale grant funded archaeological projects (Participant Interview 10: 27; Participant Interview 13: 98.30), and as direct grant funding was gradually replaced by developer funding and competitive tendering that control was transferred from English Heritage to the developers or their archaeological consultants, and these individuals had different priorities and wished to use the monitoring and the control to achieve entirely different objectives. By the mid 1990's the structure of MAP2 had been incorporated into commercial project specifications or project 'briefs' (Andrews and

Thomas 1995: 188; Participant Interview 10: 24) which were then put out for competitive tenders from a number of different archaeological units based upon 'fixed cost bids', with invoicing linked to the completion and presentation of specific management documents or project documents. As developers were reluctant to pay for post-excavation projects, which they may not have seen as their responsibility, post-excavation budgets were set as a percentage of the original 'fixed cost bid' (Participant Interview 10: 15) (what that percentage was depended upon the type of archaeological project, and what the archaeological organisation thought they could get away with), and this effectively 'capped' post-excavation budgets before the excavation started and regardless of the significance of the archaeological evidence uncovered. If any additional funds were required during the course of the excavation and those costs could not be added to the original contract as unforeseen or unavoidable variations then that money would have to come out of the original 'fixed cost bid', so post-excavation budgets may also have been used as a form of contingency fund, in the vague hope that 'something could be sorted out later'. Growing commercial pressure and lower 'fixed cost bids' therefore meant that more time was required to complete post-excavation projects but less funds were available, and this placed considerable pressure upon Project Officers to 'compromise' and take time and money saving short cuts during post-excavation. So a system that had originally been designed to justify additional grant funding from English Heritage upon academic grounds gradually became a system that could be used to cut costs to a bare minimum upon commercial grounds, and though archaeological publication was specified in both MAP2 and PPG16 'its nature and level were undefined, leaving it exposed to minimalist interpretation in the competitive world of contract archaeology' (Jones 2001: section 2.3.1).

Post-excavation projects therefore slowly changed as individual archaeological units became commercial archaeological organisations and adapted their existing procedures to fit in with the requirements of MAP2. In practice this involved the completion of additional management documents and the introduction of an Assessment Phase, so although the basic structure of a post-excavation project remained roughly the same what occurred within each stage gradually changed, and the actual post-excavation methodology used continued to evolve as a result of growing commercial pressure (Participant Interview 13: 50.00).

A post-excavation project therefore still consisted of four basic stages (see figure 2):

1 Checking the archaeological records and producing a possible interpretation.

The introduction of competitive tendering and the need to complete archaeological excavations as quickly and as efficiently as possible meant there was less time and more pressure on site, and this inevitably led to more mistakes with the archaeological recording, and then more problems when the Site Archive was eventually checked by the Project Officer during the early stages of post-excavation (Participant Interview 18: 95.00, 97.00). To some extent these problems were also exacerbated by the general adoption of the Museum of London (Department of Urban Archaeology) excavation methodology and local variations of the Single Context Recording System, which had been specifically designed to speed up archaeological recording on site, but which then required both the employment of very experienced archaeologists capable of producing completely accurate Plans, and considerable time during post-excavation to make sense of the archaeological records and construct a post-excavation Stratigraphic Matrix. Checking the Site Archive therefore became a major part of the post-excavation process, however, the introduction of competitive tendering and ‘fixed cost bids’ also meant that there was less time available for post-excavation, and any Project Officer starting a post-excavation project would have been faced with a large pile of archaeological documentation which was potentially full of errors, omissions and inconsistencies, and very limited time in which to produce some form of report.

Individual Project Officers therefore adopted one of a number of different general approaches, depending upon the standard of the archaeological recording and their willingness to ‘compromise’:

Produce a fragmented Stratigraphic Matrix:

This approach would have involved partially checking the Site Archive and *correcting* the more obvious mistakes, and then constructing a post-excavation Stratigraphic Matrix from the available archaeological records in their current state. The Site Archive would therefore still contain incomplete and contradictory archaeological records and only a limited number of sequential relationships would be firmly established. The resulting Stratigraphic Matrix would then have been confused and fragmented, with a large number of floating stratigraphic strands which could not be tied into the rest of the stratigraphic sequence. Although some of these problems may have been sorted out given better on-site recording or more time during post-excavation, at least the final fragmented Stratigraphic Matrix would have been an accurate reflection of the archaeological records produced from direct observations made on site.

Reverse the process and produce a Stratigraphic Matrix first:

This approach would have involved completely reversing the process, and instead of using the Site Archive and the Stratigraphic Matrix to produce a possible interpretation, produce an interpretation and some form of post-excavation Stratigraphic Matrix first, based partly upon information contained within the Site Archive, and then either *change* the original archaeological records to fit the Stratigraphic Matrix or simply leave the archaeological records as they were. This approach may have been considered as acceptable if it was believed that the archaeological records were not an accurate reflection of direct observations made on site which then had to be accounted for and explained, but were basic ‘field notes’ which were always confused and full of mistakes and could therefore be changed or ignored if required. Although this approach may have been seen as *correcting* errors, omissions or inconsistencies or even *completing* the original archaeological records produced on site, it was in fact *changing* the archaeological records to conform to a

particular interpretation or even removing inconvenient archaeological records to produce a neater or more simplistic interpretation which would inevitably have conformed to current expectations.

Proceed without a Stratigraphic Matrix:

If there was insufficient time or the archaeological records were too confused then any attempt at producing a post-excavation Stratigraphic Matrix may have been abandoned, even though a Stratigraphic Matrix was specified as a minimum acceptable requirement for a Site Archive in MAP2 (MAP2 1991: 30 - 31).

The next part of the post-excavation process was to use the Stratigraphic Matrix to identify individual Phase Groups or Groups within the limits imposed by the stratigraphic sequence, and then produce some form of Phase Matrix. If the initial part of the process had been carried out correctly or had already been reversed then a complete Stratigraphic Matrix would already exist and there would have been no problem in producing individual Phase Groups or Groups and a Phase Matrix. However, if the Stratigraphic Matrix was confused, fragmented or even nonexistent then it would have been necessary to completely reverse the process, and instead of using the Stratigraphic Matrix to produce a Phase Matrix and a possible interpretation, an interpretation would be produced first and then the Phase Matrix would be used as a means of presenting and depicting that interpretation. So the final Phase Matrix may have contained a large number of sequential relationships which had not been established by direct observation on site, and which were not recorded on Plans or Sections.

Once some form of Phase Matrix had been produced it would then have been used by the Project Officer to complete free text descriptions of individual Phase Groups or Groups as separate 'phases of activity' in sequence, starting with the earliest deposits. These individual Phase Group Descriptions or Group Text would then have been used to construct the final interpretation, and would have replaced the earlier Interim Reports as a guide to the possible interpretation of the stratigraphic evidence. Finally, all of this additional documentation would have formed the first part of the Research Archive.

As commercial pressure grew and the need to make time and money saving short cuts increased, pressure also grew on individual Project Officers to replace the original ‘bottom up’ approach to archaeological interpretation, based upon constructing an interpretation from the archaeological records, with a simpler and quicker ‘top down’ approach to archaeological interpretation, in which an interpretation was imposed upon the archaeological records. If this ‘top down’ approach was adopted it would then be possible to produce an interpretation without either having to account for and explain all of the archaeological records, or having to conform to and be constrained by all of the archaeological records, as any of the archaeological records could be dismissed if they proved to be inconvenient, based upon the assumption that an archaeological interpretation produced by a Project Officer during post-excavation was more accurate than the original archaeological records produced on site from direct observations.

‘This evolution marks the transition of commercial practice in archaeology from a field science to a creative science.’

(Southport Group 2011b: section 2.2.5). (*The Southport Report correctly identifies this change as having occurred at this time, but incorrectly attributes it to the introduction of MAP2.*)

Unfortunately, unless the original archaeological records were carefully re-examined it would be impossible to tell from higher level reports or the final Archaeological Publication that the initial part of the post-excavation process had been only partly completed and that a ‘top down’ approach had been used to produce the final interpretation. This would also leave the Site Archive unchecked, even though PPG16 (PPG16 1990: paragraphs 24, 25 and 26) and MAP2 (MAP2 1991: 30 - 31) were both based upon and underpinned by the concept of ‘preservation by record’ and the availability of an ordered, indexed and internally consistent Site Archive which would remain available for others to access, use and re-interpret in perpetuity.

2 Identifying the finds and producing Specialist Finds Assessments Reports.

All artefacts and ecofacts recovered from the site would have been processed by Stratigraphic Assemblage, and then divided into specific categories based upon their material or mode of production, such as pottery, animal bone, human bone or coins. By the mid 1990's, most medium sized archaeological units would have employed only one Finds Supervisor who would have been responsible for processing and sorting the finds from a number of different excavations, and then passing those artefacts and ecofacts onto particular Finds Specialists to complete Specialist Finds Assessment Reports.

The Assessment Phase outlined in MAP2 (MAP2 1991: 15 - 19) was intended to produce a more rigorous selection process, so instead of undertaking the full analysis of selected finds categories, most finds categories would receive partial analysis and then an informed decision would be taken upon whether to proceed to full analysis. The assessment of the main finds categories, such as pottery, animal bone, human bone or coins would have been undertaken by Finds Specialists within the Finds Department, however, the need to examine and assess most of the available assemblage evidence led to an increase in the commissioning of additional Specialist Finds Assessment Reports from external Finds Specialists in more obscure subjects such as clay pipes, glass slag, woollen fabric or fish bone, many of whom were employed by other larger archaeological units, or were associated with museums or university departments, or were entirely Freelance Finds Specialists who had set themselves up as independent consultants.

The assessment that these Finds Specialists were intended to undertake required 'the minimum amount of work necessary to enable reliable judgments to be made about the potential for future analysis' (Andrews and Thomas 1995: 196), that is sufficient analysis to identify the potential of particular artefacts and ecofacts to contribute to the rest of the interpretation. In practice this involved the basic identification, quantification and cataloguing of individual artefacts and ecofacts, and this would then provide additional associated information, such as possible function, possible location of manufacture and possible dates of manufacture, that is a set of bracketed dates within which a specific artefact was believed to have been produced. By focusing entirely upon artefacts and ecofacts as individual objects it became far easier for Finds Specialists to produce

Specialist Finds Assessment Reports in isolation without having to consider either the rest of the Stratigraphic Assemblage or the physical context within which those objects had been found, and without getting drawn into a wider understanding of the site or the rest of the archaeological documentation (Participant Interview 10: 25), all of which was left to the Project Officer. The resulting Specialist Finds Assessment Reports were therefore intended to be factual summaries of the quantity, quality, range and condition of the various finds categories (MAP2 1991: 16 - 18), but eventually became standardised and structured as basic Finds Catalogues with bracketed dates of manufacture, along with a discussion section and a statement of the potential of the material to contribute to both the interpretation of the site and the final Archaeological Publication. However, with finds categories such as human bone or coins which would defiantly require a full Specialist Finds Report, the completion of a Specialist Finds Assessment Reports would lead to the duplication of work or 'double handling' the same material (Participant Interview 10: 25).

Once completed these Specialist Finds Assessment Reports would have been directly incorporated into the Assessment Report, and would have also been added to the Research Archive.

Although individual Specialist Finds Assessment Reports were much shorter than the previous Specialist Finds Reports they also formed a very visible part of the Assessment Report, so far more Specialist Finds Assessment Reports had to be completed to demonstrate that all of the assemblage evidenced had been assessed, and though the size and therefore the cost of Specialist Finds Assessment Reports went down, the increase in the number of Specialist Finds Assessment Reports being commissioned led to an increase in the overall cost of finds assessment and analysis, and those extra funds could only come from the rest of the post-excavation budget.

3 Integrating the Specialist Finds Assessment Reports with the possible interpretation.

Once all the Specialist Finds Assessment Reports had been completed the Project Officer would first attempt to extract relevant information from the individual reports, and then attempt to integrate that information into the interpretation of the stratigraphic evidence and establish possible dates of deposition.

The methodology for dating archaeological deposits still varied, however, the lack of a complete Stratigraphic Matrix would have made it difficult or impossible to use the earlier methods of relative dating which relied upon using the dates of manufacture to establish a bracketed set of possible dates of deposition or 'spot dates' for individual Stratigraphic Units, and then using the stratigraphic sequence to identify and lessen the effects of possible residual or intrusive or contamination (Participant Interview 13: 26.00).

Individual Project Officers may therefore have been forced to use more direct forms of archaeological dating either by producing a bracketed set of possible dates of deposition for individual Phase Groups or Groups directly from the dates of manufacture provided by the Specialist Finds Assessment Reports, or by completely reversing the process and placing individual Phase Groups or Groups within specific Historic Periods and then looking for evidence to support that particular interpretation.

Having made some attempt at dating the stratigraphic evidence the Project Officer would then have prepared an Assessment Report (MAP2 1991: 32 - 33). This was intended to be a factual summary of the quantity, quality, range and condition of the various categories of archaeological information contained within the Site Archive (MAP2 1991: 16 - 18), as well as an accompanying statement of the potential of this archaeological information to contribute to both the interpretation of the site and the final Archaeological Publication (MAP2 1991: 32 - 33). An Assessment Report therefore presented both basic factual information and specific recommendations for further data collection and analysis, and so was intended to contain all of the information necessary to shape and clearly define the rest of the post-excavation project. As the structure of Assessment Reports developed they also started to include a more detailed description of the stratigraphic interpretation which was then used to explain, support and justify the statement of potential, so although

Assessment Reports were initially intended to list and categorise the available archaeological evidence without containing any additional interpretation they eventually became very similar to the earlier Summary Reports, but without the detailed finds analysis. The Assessment Report would then have been added to the Research Archive, however, as these reports were not intended for publications they would not have gone through the standard academic publication process, and so represent a secondary level of less reliable 'grey literature' reports.

After the completion of the Assessment Report a decision would have been taken upon whether the results of the archaeological project justified proceeding to further data collection and analysis, and eventual publication. This decision would have been taken by the Project Manager and any other relevant parties involved in the archaeological project based upon the statement of potential contained within the Assessment Report, but usually it depended upon the remaining funds within the limits of the original 'fixed cost bid' and whether the developer could be persuaded to part with any additional funding. This may also have involved or required the completion of an updated Project Design which was intended to define the aims and objectives of any future research, as well as providing a detailed and costed proposal for further data collection and analysis and a completion timetable with clearly established deadlines. If the decision was taken not to proceed to full publication then the completion of the Assessment Report and the preparation and preservation of an ordered, indexed and internally consistent Research Archive would mark the end of the archaeological project, and this was considered as an acceptable alternative to full publication as, in theory, all of the detailed information would still have been available for future research within the Site Archive.

(In certain circumstances in London an Assessment Report may also have been rewritten as a basic Archive Report, which may then have been submitted to local or regional archaeological journals for possible publication. The original idea that a number of Archive Reports from the same small geographical location would be grouped together to produce a single integrated interpretation and a higher level Archaeological Publication only work in a limited number of specific cases due to the restrictions of project specific funding (Participant Interview 14: 23.00, 40.00).)

4 Full analysis and the completion of a Synthesis Report.

If the decision was taken to proceed with further data collection and full analysis then the Project Officer would first commission a number of additional Specialist Finds Reports from the appropriate Finds Specialists, depending upon the remaining funds.

The Project Officer would then compile a Synthesis Report based upon the existing archaeological information. This would have been a *discursive* mid-level site interpretation which attempts to produce a historical synthesis of the entire area, highlighting evidence of underlying historical trends, and based upon all the dated archaeological information, the results of specialist research and analysis, and additional historical and documentary evidence. The Synthesis Report and all of the Specialist Finds Reports would then have formed the ‘analytical reports’ contained within the Research Archive, although Synthesis Reports may also have been published as a separate article without any of the additional supporting information.

Having completed a Synthesis Report it would then have been possible for the Project Officer to compile an Archaeological Report, which was intended to be a summary of the ‘analytical reports’ contained within the Research Archive. This may also have involved consideration of the remaining funds and the preparation of a costed programme for the completion of the final Archaeological Publication, which would have been roughly similar to an earlier Proposal for Publication.

Although the actual form and presentation of individual Archaeological Reports produced during the 1990's would have varied, most would have followed a similar basic structure:

- 1 **SUMMARY**, intended to outline the nature of the site and the significance of the findings, so a reader could easily evaluate the relevance of the publication to their particular area of study.
- 2 **INTRODUCTION**, (and **HISTORICAL BACKGROUND**), intended to set the scene by providing a detailed background to the excavation, including the geographical location of the site, the topology and underlying sedimentology, and the known historical development of the area along with the results of any previous excavations.

This section could have been based upon an earlier Evaluation Report, and usually followed a similar structure with limited or no explanation of the methodology used.

- 3 **DESCRIPTION**, (or **ASSESSMENT REPORT**), intended to provide a *descriptive* site interpretation which attempts to reconstruct the contemporary physical environment and the development or decline of the entire area as a sequence of dated historical events with specific reference to both the structural and the stratigraphic evidence recorded on the site, basically a (**LEVEL 3** interpretation).

This section could have been based upon an earlier Assessment Report, and included all of the dated archaeological information and specific documentary evidence.

- 4 **INTERPRETATION**, (or **SYNTHESIS**), intended to provide a *discursive* site interpretation which attempts to produce a historical synthesis of the entire area, highlighting evidence of underlying historical trends, and based upon all the dated archaeological information, the results of specialist research and analysis, and additional historical and documentary evidence, basically a (LEVEL 4 interpretation).

This section was more significant, as it presented an easily accessible interpretation of the archaeological evidence.

- 5 **CONCLUSION**, intended to highlight wider implications of the most significant results of the excavation in line with the current local, regional and national research priorities contained within the Regional Research Design.

- 6 **FINDS REPORTS**, intended to provide a full description and analysis of a large number of selected finds categories.

These Specialist Finds Reports would have been completed by an appropriate Finds Specialists, and may have been incorporated into the Archaeological Report either as a separate section, or as a separate appendix. To a certain extent this repositioning of the Finds Reports reflected a change in the size and relative importance of Finds Reports, but also a change from finds information being used to construct and produce a particular interpretation, to finds information being used to provide supportive evidence for a particular interpretation.

If there were sufficient remaining funds the resulting Archaeological Report would then have been passed onto the publishers where it would have been ‘peer reviewed’ and possibly edited, and once any corrections or additions had been made it would then receive a proposed publication date and would eventually have become an Archaeological Publication.

As commercial archaeology developed through the mid to late 1990's, the pressure upon post-excavation funding gradually grew (Kennedy 1999). This problem was due, not only to competitive tendering and lower 'fixed cost bids', but also to the invoicing system which split payment into a number of separate stages. On small archaeological projects and evaluation projects invoicing occurred at the end of the post-excavation project, and on medium to large sized archaeological projects invoicing for post-excavation work was usually linked to the completion and presentation of specific management documents or project documents. So depending upon the size of the archaeological project invoicing could occur for some of the remaining 'fixed cost bid' either at the start of the post-excavation project or after the completion of the Assessment Report, and then the final amount would be invoiced at the end of the post-excavation project. However, as many medium to large size post-excavation projects were still used to fill in employment gaps between excavations they could take five to ten years to complete, and this meant that invoices for at least part of the post-excavation work were presented to developers well after the construction project had been completed, and well after the developer had closed all the accounts and sold the building, and so no longer felt either legally responsible or morally obliged to pay up (Participant Interview 19: 115.30). Commercial archaeological organisation therefore had to initially finance post-excavation projects until the developer could be invoiced, which frequently created cash flow problems, and then if the post-excavation project had dragged on for too long there was no guarantee that the developer would respond favourably to the arrival of an unexpected invoice. (In financial reports, this was usually described as the 'under-recovery of direct and non-direct costs and overheads' (for a specific example see Turner 2000).)

Individual post-excavation projects therefore depended, not upon the academic significance of the archaeological evidence uncovered, but upon individual circumstances, the size of the original 'fixed cost bid', the attitude of the developer and the vagaries of site specific project funding, and what had been seen as an academic requirement gradually became a commercial burden. The priorities and objectives of some commercial archaeological organisation therefore gradually changed from the production of academic Archaeological Publications, to the completion of archaeological excavations on time and under budget, as this was where reliable profits could be made, and so the criteria for employment and promotion also changed from Project Officers who could produce academic Archaeological Publication (Participant Interview 13: 49.30), to Project Officers

who were willing to ‘compromise’ and who could therefore be relied upon to complete archaeological excavations on time and under budget, regardless of the size of the original ‘fixed cost bid’ or the standard of the resulting archaeological recording (Participant Interview 13: 13.00).

This also contributed to a gradual change in the attitude of individual Project Officers towards post-excavation projects. The amount of time and effort needed to complete a post-excavation project required a considerable personal commitment, particularly if there were problems with the original archaeological recording, and the decline in the importance of academic credit meant that there was no real incentive to produce an Archaeological Publication (Participant Interview 01: 45; Participant Interview 10: 97). This led to a move away from the traditional view of post-excavation projects as a personal and moral obligation and a move towards seeing post-excavation projects as a personal burden and something to be personally avoided if at all possible, and this, along with the underlying funding problems, inevitably led to a tendency to cut short post-excavation projects whenever possible. This then led to a corresponding increase in the number of higher level ‘grey literature’ reports, which gradually became the main means of marking the end of a post-excavation project, as well as the main means of disseminating archaeological information.

‘Grey literature’ is a relatively modern term (Auger 1989: 6 - 8) used broadly to describe any unpublished reports or documents, such as technical reports, notes or specifications, management reports or management papers, conference proceedings, research results, papers or journals, academic dissertations or unpublished manuscripts (Auger 1989: 3), and is not used to refer to a specific type of report or document, but is used to refer to a specific, non-commercial means of disseminating information, usually to a limited or restricted number of individuals (Auger 1989: 8). ‘Grey literature’ may therefore be defined as any complete or finished document that has not gone through the standard academic publication process, and so may have the advantage of being flexible or unconventional in both format and detail, as well as usually being the result of original and relatively recent research (Auger 1989: 8 - 15). However, as these reports or documents were not controlled by an established commercial or academic publisher they would not have gone through the various stages of editing, checking, ‘peer review’,

bibliographical control and dissemination associated with the standard academic publication process, and may therefore be difficult to find and access, and are of unknown or unverifiable quality, even though they may also be protected by intellectual property rights (Auger 1989).

Archaeological ‘grey literature’ reports may be defined as any complete or finished archaeological reports or documents that have been produced as a result of original archaeological or historical research, and that have not gone through the standard academic publication process, such as Project Designs, Interim Reports, Specialist Finds Assessment Reports, Specialist Finds Reports, Summary Reports, Assessment Reports, Synthesis Reports and Archaeological Reports, as well as any unpublished Standing Building Reports or academic dissertations. These archaeological ‘grey literature’ reports may be divided into two broad groups, lower level internal working documents, such as Desk-Top Assessment Reports, Watching Briefs, Evaluation Reports, Interim Reports, Summary Reports or Assessment Reports which would have been produced as part of the interpretation process and would therefore be of unknown or unverifiable quality and may even exist in multiple differing versions, and higher level documents, such as Synthesis Reports or Archaeological Reports which should, in theory, have been definitive documents produced to publication standard even though they would not have gone through all the checks and controls associated with the standard academic publication process. The completion of these higher level documents may also have marked the end of a post-excavation project, and so they were intended to be a lesser but equivalent versions of a full Archaeological Publication with only a limited number of duplicate copies and a limited initial distribution to the three main parties involved in the archaeological project, the developers and or their archaeological consultants, the internal archives of the commercial archaeological organisation, and the local Archaeological Monitors, who were supposed to ensure and approve the quality of these documents and then place them within the regional archives (Participant Interview 05: 59 - 60). However, as the local Archaeological Monitors did not have the time or the resources to undertake a full ‘peer review’ and ensure the accuracy of the archaeological information contained within these documents (Participant Interview 05: 58 - 59) the academic standard could vary, particularly if they had been completed by the archaeological organisation primarily to fulfil a minimum contractual, legal or social requirement and so allow them to invoice the developer and close an outstanding project account. The limited distribution also

made 'grey literature' reports difficult to access and use as they did not exist within the established academic library system (see also Falkingham 2005; Bradley 2006; Fulford and Holbrook 2011), and both commercial archaeological organisations and the original developers may have also actively discouraged the wider dissemination of what they may have considered as commercially sensitive information, either because of its content or because of its quality.

In an attempt to address some of the availability and access problems a consortium of university archaeology departments and the Council for British Archaeology established the Archaeological Data Service (ADS) in September 1996 at The King's Manor, the University of York. The primary aim of this organisation was to create and maintain a national archaeological internet library by becoming the standard depository for a wide range of digital reports, digital material or archaeological 'data sets', and thereby preserve, promote and disseminate this archaeological information in the form of an easily accessible 'metadata catalogue' (<http://archaeologydataservice.ac.uk/about> (accessed 2011)). This was initially intended to be a form of 'self-archiving' process in which copies of 'peer reviewed' and possibly published reports were digitised by the authors and placed online in order to provide 'open access' to documents that would otherwise be difficult to find and use. However, this also included copies of higher level 'grey literature' reports which some commercial archaeological organisations were placing online as a form of archaeological publishing and dissemination, and by definition none of these documents would have passed through the standard academic publication process, so in effect the Archaeological Data Service was also acting as a conventional academic publisher but without undertaking all of the checks and controls necessary to ensure the academic quality and accuracy of the archaeological information they were disseminating.

Although these archaeological 'grey literature' reports may appear to be normal 'academic publications, but with a limited distribution' they should in fact be treated as potentially unreliable archaeological information until they have been independently 'peer reviewed' and checked against the original archaeological records produced on site, as it would perhaps be a mistake to rely entirely upon the ethical standards and personal integrity of individual archaeologists in what was no longer an academic discipline but what had become a rather ruthless commercial activity.

2.2.2 THE DEVELOPMENT OF PRESERVATION BY INTERPRETATION (The 2000's)

In 1998 the Council for British Archaeology at The King's Manor, the University of York was commissioned by English Heritage, Historic Scotland, CADW, Dúchas, and the Northern Ireland Environment and Heritage Service to conduct a wide ranging survey into the actual use of Archaeological Publications, and the results of this survey were eventually published online in May 2001 in a report entitled *From The Ground Up: The Publication of Archaeological Projects: A User Needs Survey*, which became widely known as the 'PUNS Report', standing presumably for 'Publication User Needs Survey'.

Jones, S. *et al.* (2001) *From the Ground Up: The Publication of Archaeological Projects: A User Needs Survey*. York: Council for British Archaeology.

(For a detailed description of the PUNS Report see APPENDIX 2.)

Given that the recommendations of the PUNS Report represented the results of a comprehensive survey, they should perhaps be seen as the differing and sometimes contradictory hopes and aspirations of a large number of end users, rather than a realistic set of proposals that could have been implemented within a competitive commercial environment. However, they did indicate that what end users wanted was easy access to new information which they could then use and reference depending upon whether it fitted in with the arguments they were trying to make and without having to consider the accuracy of the information they were using, and what end users did not want was descriptions or multiple versions of the same site, which they would then have to understand and interpret for themselves. So although the survey found that a majority of end users looked for 'enough information to make an informed judgement about the author's interpretation' (Jones 2001: section 6.2.1), in practice 'only a quarter of respondents always, or even usually, re-interrogate an author's data and arguments in detail' (Jones 2001: section 6.2.1). The definition of the term *publication* given in Recommendation 1 would also indicate that no distinction was being made between Archaeological Publications which had gone through the standard academic publication process, and archaeological 'grey literature' reports which had not been checked and which had not been 'peer reviewed'. End users were therefore treating all archaeological

reports as if they had all been completed to the same high academic standard, and were not exercising ‘due diligence’ or undertaking what historians would regard as the basic precaution of standard ‘source criticism’, which also revealed a remarkable lack of understanding of the way in which these archaeological reports were being put together and produced.

The PUNS Report also adopted a radical theoretical position based partly upon the recommendations of the SoA Report (Jones 2001: section 2.5 and section 6.2.1), and possibly also upon the use of Reflexive Archaeology (Hodder 1999; Andrews, Barrett and Lewis 2000) which was having an increasing influence upon some areas of academic archaeology at the time. This theoretical position considered that there was ‘widespread agreement that ‘preservation by record’ is fallacious’ (Jones 2001: section 6.2.1) even though the concept of ‘preservation by record’ and the availability of an ordered, indexed and internally consistent Site Archive underpinned both PPG16 (PPG16 1990: paragraphs 24, 25 and 26) and MAP2 (MAP2 1991: 30 - 31), and that even for ‘those who maintain faith in ‘preservation by record’, the link between record and publication is already broken’ (Jones 2001: section 6.2.1) which to a large extent was true, but was a direct result of the growing commercial pressure, cost cutting and necessity, rather than through any form of deliberate academic or theoretical intention.

(Upon a closer examination the authors of the PUNS Report may have occasionally been using the term ‘preservation by record’ to refer to ‘preservation by publication’, which was more or less abandoned as impractical in the late 1970’s to early 1980’s following the publication of the ‘Frere Report’. So to give a specific example from Section 6 if the term ‘preservation by publication’ is used to replace ‘preservation by record’ then the following statement would make far more sense: ‘Notwithstanding widespread agreement that ‘preservation by record’ is fallacious, the concomitant idea that it should be possible to reconstruct and reinterpret a site from the published record nevertheless exerts considerable inertial influence.’ (Jones 2001: section 6.2.1) This misunderstanding may explain why the PUNS report appears to have adopted such a radical theoretical position.)

This radical theoretical position was then used to both challenge the traditional academic form of archaeological publication, based upon objective *description* followed by

subjective *interpretation*, and to support and justify recommendations which advocated a move towards a more integrated form of ‘synthetic narrative history’ or Synthesis Report (also occasionally referred to as an ‘integrated report’ or a ‘synthetic report’) (Jones 2001: section 6.2.1 and section 6.3, Recommendation 5), along with additional information published online (Jones 2001: section 6.2.1 and section 6.3, Recommendation 3, Recommendation 7 and Recommendation 8). This ‘synthetic narrative history’ would combine *description* and *interpretation*, along with assemblage evidence and dating evidence to produce a seamless interpretative ‘site narrative’ or Synthesis Report, which could then be easily read and referenced by end users as required. However, the traditional academic form of archaeological publication had been developed not only to disseminate specific information and allow the reader to make an informed judgement about the accuracy of the author’s interpretation (Jones 2001: section 6.2.1), but also to document the interpretation process. So to produce a traditional academic form of Archaeological Publication the Project Officer would have to go through the various stages of some form of interpretation process to check that the *description* presented sufficient archaeological evidence to justify the *interpretation*, and that the *interpretation* fully explained the archaeological evidence presented within the *description*, and this at least provided an element of accountability and academic credibility, even if the resulting information was only read by a quarter of end users (Jones 2001: section 6.2.1). To produce a ‘synthetic narrative history’ the Project Officer would only have to write an interpretative ‘site narrative’ of the required word length, which could not then be directly checked or even questioned, thus making it far easier to adopt a ‘top down’ approach to archaeological interpretation, and though the PUNS Report did not use the specific term, this would inevitable create a form of ‘preservation by interpretation’.

Although the PUNS Report achieved its primary objective of establishing the needs of the traditional end users, it failed to realise that circumstances had changed, and that as far as the commercial archaeological organisations were concerned the client was the developer and the developer was therefore the end user, and the developer was not interested in the form, structure or academic content of archaeological reports (Participant Interview 08: 25; Participant Interview 10: 56; Participant Interview 13: 65.00). The PUNS Report therefore had very little direct effect upon commercial archaeological organisations, however, it may have had a significant effect upon the editors of local and regional archaeological journals (many of whom would have been contacted by those compiling

the PUNS Report), and a number of local and regional archaeological journals then gradually changed their publication policy to include more ‘user friendly’ Synthesis Reports (Participant Interview 01: 32; Participant Interview 12: 54; Participant Interview 16: 58.00). Commercial archaeological organisations then had to adapt their post-excavation projects to fit this new publication policy, which after initial reluctance many were prepared to do, not because it provided end users with easier access to new information which they could then read and reference, but because it made it easier to adopt a ‘top down’ approach to archaeological interpretation, and this suited the commercial archaeological organisations that were attempting to simplify the post-excavation process as much as possible to save both time and money. The PUNS Report (along with Reflexive Archaeology) therefore provided academic justification for a number of purely pragmatic commercial decisions.

The introduction of new hierarchical management structures within commercial archaeological organisations also transferred control of post-excavation projects and post-excavation budgets over to Project Managers, who were then able to use management documents to set timetables and deadlines, which individual Project Officers were then expected to meet, so Project Officers were expected to ‘deliver’ finished archaeological reports, of specific word length, by specific dates, regardless of the methodology used and regardless of the amount or academic significance of the archaeological evidence that was being described and interpreted (Participant Interview 13: 71.00). These archaeological reports therefore depended not upon the funds available, but upon the time available as set by the Project Manager, for example a ‘two week report’ or a ‘four week report’, thus making it possible for the Project Manager to lessen the time available to Project Officers and so introduce an additional profit margin into post-excavation projects.

This need to ‘deliver’ placed considerable pressure on Project Officers to ‘compromise’ and focus entirely upon the specific type of management document or archaeological report that they were expected to produce. This then created a tendency to *anticipate* the outcome of post-excavation projects and the eventual publication decisions based upon the overall size of the archaeological project and the general attitude of the developers, with most commercial archaeological organisations becoming very reluctant to undertake any post-excavation work for which they were unlikely to get paid (Participant Interview 08:

32). So if a particular post-excavation project was likely to end up producing only a Synthesis Report, then the Project Officer would focus entirely upon producing a Synthesis Report, thus making it possible for the Project Officer to meet the deadlines set by the Project Manager.

This in turn led to the development of a clear division between:

1 A few large well-funded or particularly prestigious archaeological projects which would produce a full post-excavation project and a well-presented archaeological monograph, usually funded in full by the developer either for publicity or public relations reasons or because they were council or government development projects.

2 A small number of medium sized archaeological projects which would produce a Synthesis Report that may then get published as an article of specific word length in one of the local or regional archaeological journals.

3 The vast majority of less well-funded and more routine archaeological projects which were likely to end up either as an unpublished Synthesis Report or as some form of archaeological ‘grey literature’ report, such as an Assessment Report, along with a large number of evaluation projects which only produced unpublished Evaluation Reports.

Individual post-excavation projects therefore depended, not upon the academic significance of the archaeological evidence uncovered, but upon happenstance and the vagaries of individual circumstances, and sites of relatively low archaeological significance would get published because the funds were available, whereas sites of higher archaeological significance may have remained unpublished due to lack of funds. As one of the interview participants put it, ‘money is the most crucial part in all of this’ (Participant Interview 03: 29). Even the PUNS Report in 2001 identified a ‘widespread suspicion that decisions on what should or should not go into print are being shaped less

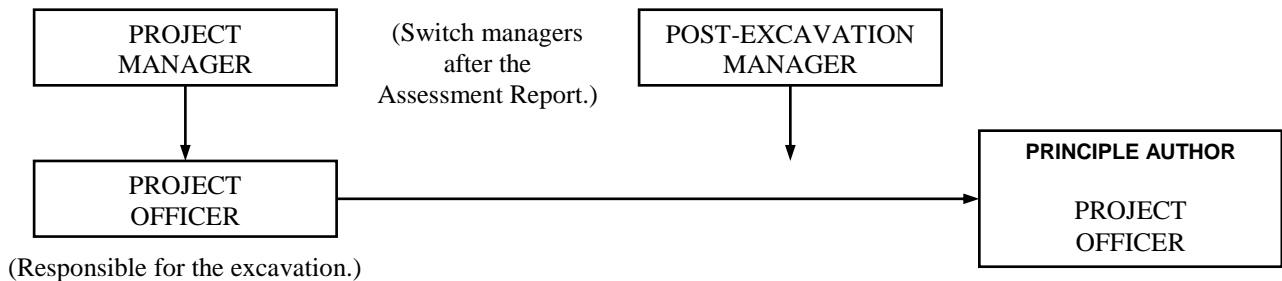
by scholarly principle than by financial expediency – that selectivity is being put forward as a pretext for pragmatism.’ (Jones 2001: section 6.2.1)

A clear division had also developed between the small and medium sized archaeological organisations which left post-excavation projects to individual Project Officers, and the larger archaeological organisations which had had sufficient commercial work to allow them to maintain the specialist post-excavation teams that they had established to deal with the various grant funded Backlog Programs in the early 1990’s (Participant Interview 10: 28; Participant Interview 16: 35.00). The structure and organisation of these specialist post-excavation teams had developed and changed over time and varied depending upon both the management structure of the archaeological organisation and their attitude towards post-excavation (Participant Interview 10: 16), as well as less obvious things, such as the working environment and the physical layout of the office space which may have either shaped or been shaped by the management structure of the archaeological organisation (Participant Interview 10: 83 - 85; Participant Interview 11: 81, 83 - 85; Participant Interview 12: 84 - 85).

THE STRUCTURE AND ORGANISATION OF SPECIALIST POST-EXCAVATION TEAMS

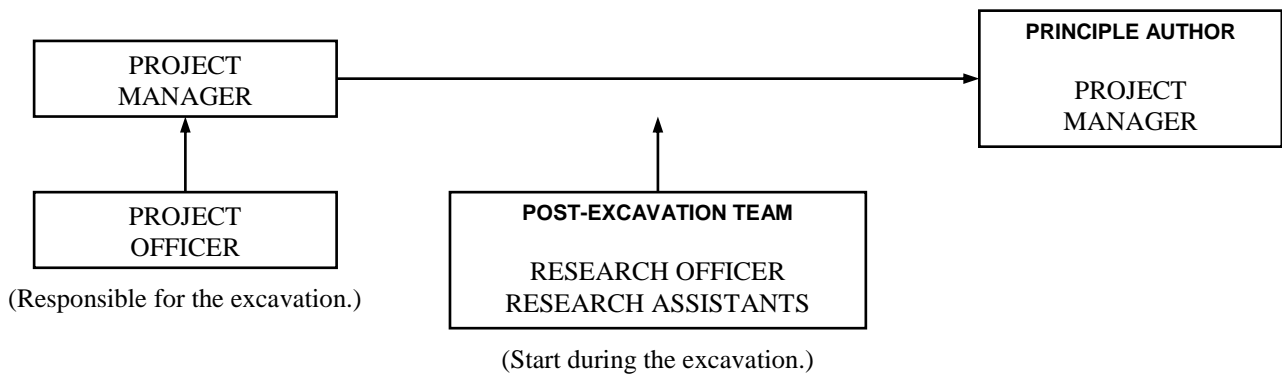
WESSEX ARCHAEOLOGY

(Managers and Staff work in separate parts of the same building. Managers manage the Project Officer, who then completes the post-excavation project.)



OXFORD ARCHAEOLOGY

(Managers and Staff work together in project rooms. Staff work for the Project Manager, who may in certain circumstances pass the post-excavation project on to a Post-Excavation Manager.)



MUSEUM OF LONDON ARCHAEOLOGY

(Managers and Staff work together in the same open plan office. Managers manage the Project Officer, who then completes the post-excavation project.)

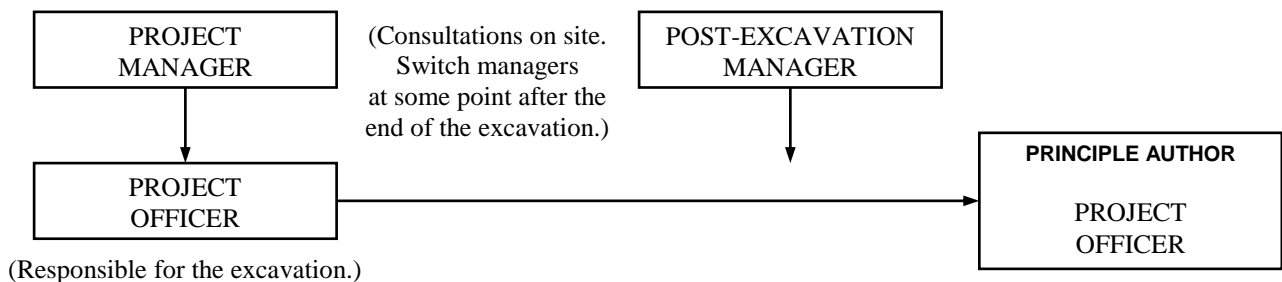


Figure 5: The structure and organisation of specialist post-excavation teams.

Although each of these post-excavation management systems had their own strengths and weaknesses, all of them did, to some extent, break with the traditional belief that anyone who was capable of supervising an excavation was also capable of writing an archaeological report and producing an Archaeological Publication (Participant Interview 10: 44), and that the Project Officer who had supervised an excavation also had a personal obligation and a professional responsibility to complete both the post-excavation project and the final Archaeological Publication (Participant Interview 10: 16). So instead of an individual Project Officer being responsible for all of the various tasks involved in completing a post-excavation project these specialist post-excavation teams allowed the larger archaeological organisations to make efficiency savings by either training or employing individual specialists who would then acted as post-excavation support staff (Participant Interview 10: 43 - 44). For example, a small number of specialist research staff may have be employed just to produce Desk-Top or Desk Based Assessment Report, and specialist members of staff may have been employed to deal with the basic preparatory work which would have occurred during the early stages of post-excavation, such as digitisation and data entry, and some of these individuals may also have been able to do basic editing, typesetting and proof reading (Participant Interview 12: 85 - 88, 94). Specialist Post-Excavation Managers or experienced academic editors would have been employed to supervise individual post-excavation projects and ensure their completion on time and on budget, and these individuals would also have been responsible for developing internal post-excavation policy documents and a consistent in-house style, design and format for each publication (Participant Interview 10: 17 - 20, 41, 53; Participant Interview 11: 82), as well as the internal quality control documents required to support bids for larger commercial tenders (Participant Interview 10: 18, 22).

The structure and organisation of these specialist post-excavation teams also meant that, in certain circumstances, post-excavation projects could be handed over or passed on from the Project Officer who had supervised the excavation to another Project Officer or Post-Excavation Manager who specialised in completing partially finished post-excavation projects and who also had both the experience and the writing skills to produce archaeological reports and Archaeological Publications as quickly and as efficiently as possible (Participant Interview 10: 14; Participant Interview 12: 113 - 115). This dealt with the long standing problem that some Project Officers hated writing up and would do

anything to avoid it and that experienced Project Officers would always be the first to be sent back out on to site (Participant Interview 11: 93 - 94), so the use of specialist Project Officers or Post-Excavation Managers to complete post-excavation projects meant that fewer archaeological projects were left unfinished and abandoned (Participant Interview 12: 87 - 90). However, it also meant that any additional or marginal information that only the original Project Officer would know, such as the reliability of certain sets of records or certain archaeologists would effectively be lost if it was not contained within the final Site Archive, and Project Officers who never got a chance to write up a site they had supervised never got a chance to learn from their mistakes and therefore tended to carry on making them (Participant Interview 10: 89 - 93; Participant Interview 11: 91 - 93), even if the Post-Excavation Managers within these larger archaeological organisations did provide constant feedback (Participant Interview 11: 89).

Post-excavation projects therefore gradually changed as individual archaeological organisations developed their own internal processes and procedures to cope with the unpredictable commercial environment and the needs of both specific developers and specific post-excavation projects (Participant Interview 13: 55.00). In practice this involved a move towards a more *ad hoc* form of post-excavation process, so although the basic structure of a post-excavation project remained roughly the same what occurred within each stage would depend upon individual Project Officers, individual Project Managers, individual circumstances, specific deadlines and the knowledge that most post-excavation projects could also come to a sudden halt at any point for any one of a number of different reasons.

A post-excavation project therefore still consisted of four basic stages (see figure 2):

1 Checking the archaeological records and producing a possible interpretation.

The growing commercial pressure on site and the need to meet specific deadlines during post-excavation meant that Project Officers had to focus upon the completion of specific management documents or archaeological reports, and any attempt at checking the archaeological records and producing an ordered, indexed and internally consistent Site Archive would have depended upon the available funds (Participant Interview 13: 58.00).

On large well-funded post-excavation projects there may have been sufficient time to go through the Site Archive and produce some form of post-excavation Stratigraphic Matrix or Phase Matrix, and it may even have been possible to digitise all the Plans and Sections and produce some form of CAD or GIS based database (Participant Interview 02: 5), partly to create a duplicate digital archive as a security copy (Participant Interview 03: 9), but also to assist in the rest of the post-excavation process.

On less well-funded and more routine post-excavation projects the Site Archive may have been sorted and ordered, but the Project Officer would then have gone straight to the completion of either an Assessment Report or even a Synthesis Report depending upon individual circumstances. The poor state of the archaeological records and the Site Archive may then have required the use of a direct ‘top down’ approach to archaeological interpretation.

This ‘top down’ approach to archaeological interpretation could only be justified if it was considered as acceptable to assume that the archaeological records were not an accurate reflection of direct observations made on site which then had to be accounted for and explained, but were basic ‘field notes’ which were always full of errors and inconsistencies, and could therefore be either *changed* or ignored if they did not fit in with a particular interpretation. The archaeological records may therefore have ‘suggested’ a possible interpretation which the Project Officer could then turn into a definite interpretation by ignoring any Plans, Sections or written records that did not fit in with

that interpretation, based upon the assumption that the interpretation was not wrong, the archaeological records were wrong, because the archaeological records were only basic 'field notes' which were always full of errors and inconsistencies. The very act of believing in a particular interpretation therefore permitted the Project Officer to 'find' the archaeological records to support that particular interpretation because no archaeological records were accurate enough, precise enough or reliable enough to definitively disprove that particular interpretation.

So put simply, with a 'bottom up' approach to archaeological interpretation - archaeological interpretations are constructed from the archaeological records, so the archaeological interpretations are changed or adjusted to fit the archaeological records, and with a 'top down' approach to archaeological interpretation - archaeological interpretations are imposed upon the archaeological records, so the archaeological records are changed or adjusted to fit the archaeological interpretations or the archaeological records are simply ignored.

Archaeological records were therefore no longer seen as an accurate reflection of direct observations made on site that then had to be accounted for and explained, but were considered as basic 'field notes' which were always full of errors and inconsistencies that could then be either *changed* or ignored as required. However, if archaeological records were considered as basic 'field notes' then they did not require checking and could be changed or ignored as required, thus making it possible to meet the shorter post-excavation deadlines, and if archaeological records were considered as basic 'field notes' then the archaeological recording on site did not have to be as accurate and precise, thus making it possible to meet the shorter excavation deadlines.

So put simply, if the standard of the archaeological records produced on site had reached a tipping point and had fallen to the level that they had to be treated as basic 'field notes' then a 'top down' approach to archaeological interpretations would be required, and if a 'top down' approach to archaeological interpretation was used then the archaeological records produced on site did not have to be as accurate and precise, and could therefore *become* basic 'field notes', thus justifying a 'top down' approach to archaeological interpretation, and also creating a complicated form of self fulfilling prophecy, as well as

making it possible to meet the shorter excavation and post-excavation deadlines while employing inexperienced site staff.

(Some of the larger archaeological organisations seem to have avoided the pressure to adopt a 'top down' approach to archaeological interpretation, partly by establishing and maintaining specialist post-excavation teams which prevented post-excavation from being an entirely individual process, but mainly by investing in database software which then required the completion of a digital Site Archive (Participant Interview 10: 28, 37; Participant Interview 14: 51.30). This particularly applied to the Museum of London Archaeology Service (MoLAS) which had started to invest in database software as far back as the early 1980's, and in the early 2000's started to develop an Oracle Relational Database Management System linked to GIS which had been specifically designed to deal with urban sites (Participant Interview 14: 45.00, 56.00), and Oxford Archaeology and Wessex Archaeology which realised the advantages of database software and GIS on large rural sites following the Framework Archaeology project in the late 1990's and early 2000's (Participant Interview 10: 29 - 30; Participant Interview 16: 45.30, 48.00). The Integrated Archaeological Database system (IADB) was also developed, first by Scottish Urban Archaeological Trust in the 1980's and then in 1997 by the York Archaeological Trust, and this software package has been used by a number of university research projects. The INTRASIS GIS database system has also been developed in Sweden, and is currently used in Denmark, Norway, Iceland and the UK. The efficiency savings that these GIS based archaeological databases provided then allowed these archaeological organisations to both maintain standards and remain competitive (Participant Interview 14: 52.00; Participant Interview 16: 49.00).)

2 Identifying the finds and producing Specialist Finds Assessments Reports.

By the 2000's the growing commercial pressure on site was also producing more selective collection policies (Participant Interview 14: 58.00) and this was then affecting Finds Departments. The larger commercial archaeological organisations which undertook major government and developer funded projects had sufficient work to maintain their Finds Departments, however, many of the smaller commercial archaeological organisations had to reduce their Finds Departments to a single Finds Supervisor, who would process and sort the finds from a number of different excavations, and then pass them onto Freelance Finds Specialists who would produce Specialist Finds Assessment Reports (Participant Interview 02: 7).

The growing commercial pressure also affected the number of Specialist Finds Assessment Reports undertaken. So, on large well-funded post-excavation projects the overall number of Specialist Finds Assessment Reports continued as before, however, on evaluation projects or more routine post-excavation projects there were less funds for Specialist Finds Assessment Reports and only certain categories of artefacts or ecofacts, such as pottery, animal bone, human bone or coins may have been partially analysed, and the rest of the assemblage evidence may not have even been processed. The number of Specialist Finds Assessment Reports being commissioned therefore altered to fit the funds available, and this led to a general increase in the size of the Specialist Finds Assessment Reports, but a decrease in the overall number of reports and a corresponding decrease in the overall cost of finds assessment and analysis.

(When archaeological organisations had Finds Departments it was possible for Project Officers to ask for 'short' one or two page Specialist Finds Assessment Reports which would identify a small number of specific artefacts or ecofacts, and frequently Finds Specialists would co-ordinated their work, so for example animal bone and human bone specialists would work together on any unidentified bone, however, commissioning Specialist Finds Assessment Reports from Freelance Finds Specialists required additional administration costs per report, and therefore the number of artefacts or ecofacts examined had to justify this additional expenditure, thus leading to far fewer 'short' reports.)

The standard and quality of the Specialist Finds Assessment Reports produced by Freelance Finds Specialists was also difficult to determine. The income of many Freelance Finds Specialists depended upon a rapid turnover of projects, so the Specialist Finds Assessment Reports they produced tended to become more structured and formulaic documents with a lot of 'cut and paste' used to bulk out basic information. The Specialist Finds Assessment Reports produced by Freelance Finds Specialists also focused entirely upon identifying and quantifying artefacts and ecofacts as individual objects, and were therefore produced in isolation without any specific local knowledge and without having to consider either the rest of the Stratigraphic Assemblage or the physical context within which those objects had been found.

This emphasis upon basic identification may have also widening the definition of existing type-series, as one of the interview participant put it, 'if you actually think about all the work that there has been since 1990, and you think about the pre-Roman, and there hasn't been one, as far as I am aware, one new type of pottery identified, nor has any of the old types gone away' (Participant Interview 18: 100.30), and presumably this also applies to re-consideration and refining possible dates of manufacture.

Any wider assessment of the potential of particular artefacts or ecofact to contribute to the rest of the interpretation was then left to individual Project Officers or Project Managers, who based their decisions entirely upon the available funds and negotiations with the developer. As one of the interview participants put it, 'we literally have a massive spread sheet where it's days, day rates and costs, with all those things explained, and so, show that to the client so they can really see where every pound is needed for, and then there is, you know, do you really need the pottery looked at, well it's a Roman site' (Participant Interview 02: 23). Once completed these Specialist Finds Assessment Reports would have been directly incorporated into the Assessment Report, if an Assessment Report was being produced, and would have also been added to the Research Archive.

3 Integrating the Specialist Finds Assessments Reports with the possible interpretation.

Once the Specialist Finds Assessment Reports had been completed the Project Officer would then attempt to extract relevant information and integrate it into a possible interpretation of the stratigraphic evidence.

The methodology used to date archaeological deposits would have depended primarily upon the individual Project Officer, but also upon the state of the Site Archive. Where possible the Project Officer may have used some form of relative dating based upon individual Phase Groups or Groups, or upon specific 'phases of activity' or 'phases of occupation', however, if the Site Archive was not internally consistent then the Project Officer may have been forced to make some form of educated guess at individual dates of deposition based either upon the dates of manufacture provided by the Specialist Finds Assessment Reports (including possible C14 or dendrochronology dates), or upon the dates required to support and maintain a particular stratigraphic interpretation.

Unfortunately, without a full explanation of the methodology and a full description of all the archaeological evidence it is impossible to tell how any particular archaeological deposits had been dated.

Having made some attempt at dating the stratigraphic evidence the Project Officer would then have prepared an Assessment Report (MAP2 1991: 32 - 33), and by this stage of the post-excavation project there would have been some indication of what the final outcome was likely to be, so the Assessment Report would have been prepared to fit that likely outcome.

On large well-funded or particularly prestigious archaeological projects where further developer funding had already been agreed the completion of an Assessment Report was simply the end of a stage in the post-excavation process (Participant Interview 10: 21). In these cases the Assessment Report was seen as an unnecessary burden as it duplicated work and could take up to 25% of the total post-excavation budget (Participant Interview 16: 53.30). As another interview participants put it, 'I suppose one of the problems we have today is there are sites where we are forced to do a MAP2 assessment when it is

totally unnecessary’, ‘and you can simply see it as a waste of time, money and resources’ (Participant Interview 10: 23 - 24).

On medium sized archaeological projects where there was the possibility of further post-excavation work the Assessment Report would have been prepared as an initial ‘Client Report’. In these cases the Assessment Report was designed to be used both as a means of convincing the developer to pay for more post-excavation work and as a means of justifying that expenditure on academic grounds, and would therefore contain an updated Project Design which was intended to define the aims and objectives of any further research (Participant Interview 02: 7 - 8). As one of the interview participants put it when discussing an Assessment Report for a major Roman excavation, ‘that was written with the idea that then you would go with that to the client, because they want to know what they are paying for, what we can get out of this, let’s look at this together, but unfortunately that’s where we stalled on that one, and the ... um, we haven’t had an agreement from the client as yet’ ‘and that’s almost a five year lull’ (Participant Interview 02: 22). As another interview participants put it, ‘you know this as well as I do, for a lot of clients it is absolutely dead money’ ‘they only do it under duress because they have to, otherwise they won’t get planning’ (Participant Interview 03: 29).

However, on less well-funded and more routine archaeological projects the completion of the Assessment Report would have marked the end of the post-excavation project (Participant Interview 04: 27), so the Assessment Reports would have been prepared as an archaeological ‘grey literature’ report for the Research Archive and possible dissemination on-line.

4 Full analysis and the completion of a Synthesis Report.

If it was possible to proceed with further data collection and full analysis then either the Project Manager or the Project Officer would commission a number of additional Specialist Finds Reports from the appropriate Finds Specialists, depending upon the remaining funds and whether the post-excavation project was likely to end with either a Synthesis Report which would not require additional Specialist Finds Reports, or an Archaeological Publication which would require additional Specialist Finds Reports.

The Project Officer would then compile an integrated form of ‘synthetic narrative history’ or Synthesis Report based upon the existing archaeological information. Once completed the Synthesis Report and any Specialist Finds Reports would have formed the ‘analytical reports’ contained within the Research Archive (see also Brown 2007; Brown *et al.* 2013), and would, in theory, have been definitive documents produced to publication standard, however, they would not have gone through all the checks and controls associated with the standard academic publication process, and so they also represent higher level archaeological ‘grey literature’ reports, which in effect are higher level ‘Client Reports’.

While the Synthesis Report is being completed a decision would have been taken upon whether to attempt to publish the Synthesis Report as an article in one of the local or regional archaeological journals, or whether it was possible to produce a full Archaeological Publication. This decision would have been based upon the available funds and the opinions of the editors of the local or regional archaeological journals, so if the Synthesis Report was of both sufficient size and academic importance, and of wider general interest then it may have been accepted as a draft article which would then have gone through all the checks and controls associated with the standard academic publication process, and which may have also required some editing and re-writing to get it to a specific word length. Regardless of whether the Synthesis Report was published or not most of the archaeological projects which had reached this stage of the post-excavation process would have come to a halt at this point, and the Synthesis Report, and possibly the Research Archive, would then have been submitted to the local

Archaeological Monitors, who were supposed to ensure and approve the quality of these documents and then place them within the regional archives.

If there were sufficient funds and sufficient motivation then either the Project Manager or the Project Officer may also have attempted to complete an Archaeological Report which would eventually be published either as a single archaeological monograph or as one or more separate volumes (Participant Interview 02: 8).

The actual form and structure of individual Archaeological Reports produced during the 2000's would have increasingly varied due to both the limits imposed by the available funds and the introduction of some of the more 'innovative solutions' put forward by the PUNS Report, such as attempting to create 'synthetic narrative histories' or integrating finds evidence into the text (Participant Interview 02: 17 - 18). This created single one-off non-standard Archaeological Reports which varied depending upon individual circumstances, the particular in-house style of Archaeological Report that had developed within the archaeological organisation (Participant Interview 10: 9, 41, 53; Participant Interview 11: 82), the local report and archive requirements set by the City or County Archaeologist and contained within the WSI (Written Scheme of Investigation) or project 'brief' (Participant Interview 10: 70 - 72; Participant Interview 11: 67 - 72, 101 - 102), and how 'innovative' the Project Manager or the Project Officer wished to be.

If there were sufficient remaining funds or if the developer needed an Archaeological Publication for either publicity purposes or public relations reasons, the resulting Archaeological Report would then have been passed on to the publishers where it would have been 'peer reviewed' and possibly edited. The developer as the client may also wish to decide upon the form, the style and possibly even the structure of the proposed Archaeological Publication (Participant Interview 01: 52; Participant Interview 02: 8), as well as examining the final text to ensure that it presented both the developer and the development in an appropriate light (Participant Interview 02: 9 - 10, 29), and developers or their archaeological consultants may also occasionally edit Archaeological Reports or ask for specific sections to be changed or removed. When one of the interview participant was asked if the developer of a particular project was 'keen on this public relations exercise' they replied, 'absolutely, ye it's key to them, ye it's key' (Participant Interview 02: 10)

and this obviously raises ethical and integrity issues (see also <http://www.theguardian.com/culture/2016/apr/29/museums-ethics-investigation-influence-sponsor-bp-british-museum>), although surprisingly none of the interview participants seemed to consider that this was a problem.

Once any corrections, additions or alterations have been made and the final text has been agreed it would then receive a proposed publication date and would eventually become an Archaeological Publication. Some archaeological organisations may also by-pass this formal publication process and use standard publication software to produce their own Archaeological Publications, doing copy editing and typesetting in-house, and then outsourcing the final text to a commercial printing company to produce an archaeological monograph (Participant Interview 01: 33). At some point in the future the published text may also be placed on-line either as a pdf file or as part of a commercial print-on-demand process. (The normal print-run for the more popular Archaeological Publications appears to have been about 500 copies, and for more academic archaeological monographs the print-run was usually about 250 to 300 copies, possibly with some extra copies done as print-on-demand if necessary (Participant Interview 11: 108 - 109).)

The introduction of published Synthesis Reports appears to have been driven primarily by the editors of various local or regional archaeological journals who attempted to widen their readership by gradually changing their publication policy and producing more popular publications containing shorter articles of local historical interest, which then could be easily read by a variety of different end users (Participant Interview 12: 54; Participant Interview 16: 58.00). However, although Synthesis Reports proved popular with some commercial archaeological organisations, it soon became apparent that it was actually very difficult to produce a 'good' Synthesis Report as it was very difficult to write a seamless interpretative 'site narrative' when the levels of description, interpretation and integration depended, not upon the size or complexity of the site, but upon a specific word limit set by a journal editor, so a poorly written or a quickly written Synthesis Report could easily develop into a disjointed 'cut and paste' document (Participant Interview 10: 54, 60; Participant Interview 16: 61.00). Synthesis Reports were also deeply unpopular

with Find Specialists who could not get their Specialist Finds Reports published, and who did not like the information that they contained being re-interpreted and then incorporated into someone else's report (Participant Interview 08: 20; Participant Interview 11: 56 - 57, 82; Participant Interview 12: 58 - 59). Local and regional archaeological journals also appear to have had a rapid turnover of journal editors and each new journal editor may have required a different size or style of Synthesis Report, so a change in journal editor could also lead to the complete re-writing of partially finished archaeological reports, even though in many cases it was the archaeological organisations who were actually paying for the privilege of having their work published (Participant Interview 16: 58.30). Given the varying levels of description, interpretation and integration involved it is also very difficult to know the amount of checking or academic 'peer review' that these Synthesis Reports receive before publication.

(The use of published Synthesis Reports now seems to have been a temporary trend which may be coming to an end (Participant Interview 10: 54). Recently a number of regional archaeological journals appear to be considering producing smaller printed site summaries or site catalogues containing very basic site descriptions, and then publishing larger archaeological reports or articles on-line (Participant Interview 11: 60 - 61; Participant Interview 12: 60 - 61; Participant Interview 16: 10.00). These archaeological reports may then be able to contain more information, including a more traditional report structure and additional finds information.)

When viewed on their own, in isolation and at a superficial level the vast majority Archaeological Publications produced by professional and commercial archaeology since the early 1970's all appear to be very similar documents. However, when a number of Archaeological Publications from different periods are viewed together and in chronological order it soon becomes apparent that considerable changes have occurred over the years, not to the basic form or structure of the Archaeological Publications, which has remained roughly the same, *description* followed by *interpretation*, but more subtle changes have occurred to how and why these Archaeological Publications were produced, and to what constitutes *description* and what constitutes *interpretation*.

Initially these changes were driven by a need to reduce the size and therefore the cost of Archaeological Publications by increasing the level of the interpretation and publishing shorter higher level interpretations which would then act as a basic guide to the archaeological information contained within the Site Archive, and though this did maintain the relative size of Archaeological Publications it also added to the size and complexity and therefore the cost of post-excavation projects (see figure 3). Following the introduction of developer funding and competitive tendering this increase in the level of interpretation continued in an attempt to produce more ‘user friendly’ publications that presented a ‘synthetic narrative history’ and a seamless interpretative ‘site narrative’ which could then be easily read and referenced by end users as required (see figure 3). So the underlying aims and objectives that Archaeological Publications were intended to fulfil have gradually changed and evolved over the time, from low level interpretations and the dissemination of basic archaeological information, to the presentation of much higher level synthetic interpretations, and this has also been reflected in changes to the basic guiding principles of archaeological publication, from ‘preservation by publication’, to ‘preservation by record’, and then to a form of ‘preservation by interpretation’.

However, this form of ‘interpretation inflation’ has stretched out the post-excavation process to the point where the final interpretation can be separated or detached from the archaeological records contained within the Site Archive, and it has now become perfectly possible to produce an Archaeological Publication without having to justify every interpretation by direct reference back to the original archaeological documentation. So instead of going through the various consecutive stages of the post-excavation process to produce a ‘bottom up’ interpretation and an Archaeological Publication which not only presents the interpretation but also documents and presents the interpretation process (thus allowing the reader to make an informed judgement about the accuracy of the interpretation), it has now become perfectly possible to completely reverse the interpretation process and produce a ‘top down’ interpretation and an Archaeological Publication or archaeological ‘grey literature’ report which simply presents an interpretation (thus producing a totally different approach to archaeological interpretation and a distinct move away from an earlier academic tradition of presenting the evidence and then drawing out a conclusion, to simply presenting a conclusion).

The increasing level of interpretation therefore made it *possible* to adopt a ‘top down’ approach to archaeological interpretation, and the growing commercial pressure made it *necessary* to adopt a ‘top down’ approach to archaeological interpretation.

This form of ‘top down’ interpretation ultimately depends not upon the weight of supportive evidence, but upon the personal insight of a single individual producing personal interpretations based upon personal opinions at a specific time, and therefore has a much lower burden of proof which has both permitted and promoted a more fundamental change in the basic underlying working culture of archaeology, from a naturally sceptical working culture (in which interpretations had to be based upon actual evidence, and were not believed or accepted until they had been definitively proven, preferably ‘beyond reasonable doubt’ but at least upon ‘the balance of probabilities’) to a naturally compliant working culture (in which interpretations were simply asserted from a position of authority as self-evident truths, and were then believed or accepted until they could be definitively dis-proven, which was practically impossible without access to the original documentation).

As one of the interview participants put it, the archaeological reports and Archaeological Publications produced these days are nothing more than the personal thoughts of the Site Director, and in fifty years time no one will want to read the personal thoughts of the Site Director, they will want access to the basic data so it can be re-interpreted in the light of new evidence (Participant Interview 04: 43).

Any archaeologist making an interpretation should, in theory, be able to ‘prove it’ by direct reference to specific Plans, Sections and the stratigraphic sequence, and it should be possible for a reader to track or trace an interpretation back to the original records and the original evidence upon which it was based (Participant Interview 01: 14 - 15, 30 - 31; Participant Interview 07: 38 - 40; Participant Interview 18: 24.00, for an alternative view Participant Interview 17: 75.00; Participant Interview 18: 14.00). Any Archaeological Publications or archaeological ‘grey literature’ reports produced using a ‘top down’ approach to archaeological interpretation should therefore be treated with caution, even if they have gone through the standard academic publication process, and should be considered as potentially unreliable archaeological information until they have been

deconstructed and been subjected to critical re-evaluation and a form of standard ‘source criticism’ (Shafer 1980; McCullagh 1984), in effect treating all archaeological reports and publications as if they were historical documents and subjecting them to the same standard ‘historical methods’ used by historians to examine and evaluate historical sources.

2.2.3 THE CONSOLIDATION OF PRESERVATION BY INTERPRETATION (The 2010's)

Over recent years there have been a number of significant changes, and both MAP2 and PPG16 (and their Welsh and Scottish equivalents) have now been superseded.

In the mid 2000's English Heritage undertook a review of MAP2, and in May 2006 produced *Management of Research Projects in the Historic Environment*, which became widely known as MoRPHE. This document was followed by six specific 'MoRPHE Project Planning Notes', the most relevant of which was the 41 page *MoRPHE Project Planning Notes 3: Archaeological Excavation*, produced in 2008 and normally referred to as MoRPHE PPN3.

English Heritage (2008) *Management of Research Projects in the Historic Environment: Project Planning Notes 3: Archaeological Excavation*. London: English Heritage.

Then in April 2009 the original MoRPHE was itself revised and updated with the publication of a 57 page document, also referred to as MoRPHE, or as new MoRPHE, or occasionally as MoRPHE: Version 1.1.

English Heritage (2009) *Management of Research Projects in the Historic Environment: The MoRPHE Project Manager's Guide*. (2nd edition) London: English Heritage.

(For a detailed description of MoRPHE see APPENDIX 2.)

In March 2010 the British Government, Department of Communities and Local Government also replaced both *PPG15: Planning and the Historic Environment* and *PPG16: Archaeology and Planning* with a 14 page document entitled *Planning Policy Statement 5: Planning for the Historic Environment*, normally referred to as PPS5, and this was then supported by a 54 page document entitled *Planning Policy Statement 5: Planning for the Historic Environment: Historic Environment Planning Practice Guide*, which became widely known as PPS5 Practice Guide or occasionally PPS5 PG. Both of these documents were endorsed by the Department of Communities and Local Government, the Department for Culture, Media and Sport and English Heritage,

however, they only applied to England, so Wales, Scotland and Northern Ireland developed their own legislation.

Department of Communities and Local Government (2010) *Planning Policy Statement 5: Planning for the Historic Environment*. London: Department of Communities and Local Government.

(For a detailed description of PPS5 see APPENDIX 2.)

In 2008 the Institute of Field Archaeologists (IFA) changed its name to the Institute for Archaeologists (IfA) in order to attract professionals from the wider historic environment sector, and following discussions on the potential implication of PPS5 at the IfA conference in Southport in April 2010 a working party called the Southport Group was set up consisting of 14 individuals linked to various aspects of the historic environment, including Archaeological Monitors, contractors, consultant, developers, academics and museum services (Southport Group 2011b: section 6.1), and in July 2011 the Southport Group published a 72 page report entitled *Realising The Benefits of Planning-Led Investigation In The Historic Environment: A Framework For Delivery*, which became known as the 'Southport Report'.

Southport Group (2011) *Realising The Benefits of Planning-Led Investigation In The Historic Environment: A Framework For Delivery*. London: MOLA and English Heritage.

The initial intention of the Southport Group was to try to correct the problems created by PPG16 and influence how PPS5 was implemented in practice, so the Southport Group saw the introduction of PPS5 as an opportunity to change the existing commercial working culture, which an early position statement written in January 2011 described as ‘a highly competitive, unregulated market that can penalise those that seek to add value to the lowest common denominator’ (Southport Group 2011a). This position statement went on to add:

‘When an unregulated market fails to deliver consistently the public benefit that government policy intended, it is termed by economists *market failure*. When this happens, government has a responsibility to intervene.

Market failure typically involves:

- *asymmetry of information*: where purchaser has limited understanding of the services or product compared with the provider.
- *credence goods*: where the purchaser has to take on trust that the service will be fit for purpose, and, when the final products are delivered long after commissioning, that it will arrive at all.
- *externalities*: where others, normally the public, are affected by or have a legitimate interest in a product or service negotiated between distant service providers and clients.

We can see how reminiscent this is of commercial archaeology, where there is a lack of very clear obligations on all service providers to have appropriate, accredited expertise and to deliver services of defined quality for public benefit. For fear of failing to secure contracts, commercial archaeologists have frequently found themselves obliged to design and deliver projects that are far below the best they can offer - to the detriment of public benefit.’

(Southport Group 2011a).

The position statement then added:

‘PPS5 places great emphasis throughout on expertise, it refers to professional standards, it directs readers to the IfA Register of Organisations and to professional membership, and it advises LPAs [local planning authorities and the local Archaeological Monitors] on their rights and responsibilities in ensuring work and the people doing it meet the required standard.

There’s nothing anti-competitive in this. It’s just that by making sure that defined public benefit is at the heart of the requirement, competition will be on quality and innovation, and not just on price.’

(Southport Group 2011a).

The Southport Group tried to address a wide range of existing problem which affected all aspects of the historic environment, so the main information gathering stage involved 4 sector based workshops and on-line consultations held in January 2011 (Southport Group 2011b: section 6.2.7), followed by a fifth workshop held with representative members of the development sector (Southport Group 2011b: section 6.2.9), and the draft report was then presented and discussed at the IfA annual conference in April 2011 (Southport Group 2011b: section 6.2.11).

The final ‘Southport Report’ was published in July 2011 and was divided into 6 sections. An executive summary and an introduction (Southport Group 2011b: section 1 and section 2) followed by a detailed description of the basic findings (Southport Group 2011b: section 3). These findings produced 32 wide ranging recommendations (Southport Group 2011b: section 4), which were intended to provide guidance on training, monitoring, best practice and public participation, as well as new and improved professional standards and guidance and collaborative research strategies that would ‘deliver public benefit’. These recommendations led to 16 ‘products’ or proposed policy documents (Southport Group 2011b: section 5), which included public participation and community training, a review of Regional Research Frameworks, the PUNS report and PPS5, guidance on the education and research value of archaeological archives, updated IfA standards and guidance (which were completed in December 2014) and outline IfA accreditation standards. The

methodology was contained within the appendix (Southport Group 2011b: section 6), which describes how the report was compiled and produced, and summarised the workshop discussions including detailed information on the questions raised, the problems encountered and the proposed solutions. An Annex was also included containing an economic analysis of the market for archaeological services in the planning process, done by the London School of Economics.

The Southport Group correctly identified the main problem as the highly competitive, unregulated commercial market system, however, the wide range of recommendation contained within the 'Southport Report' (Southport Group 2011b: section 4) may indicate that this initial focus had changed during the workshops and expanded to address the immediate problems and working conditions of a wide range of individuals employed in various aspects of the historic environment, many of whom would have seen archaeological projects as single commercial contracts with specific short-term aims and objectives. So instead of advocating policies that would make 'preservation by record' possible within a highly competitive commercial market system the 'Southport Report' decided to abandon this long held underlying principle (Southport Group 2011b: section 2.2.4, section 2.2.7 and section 2.3.9) (possibly based upon the radical theoretical position presented in the PUNS report) and instead embraced the easier short-term option of 'preservation by interpretation' and yet more innovative new products which would deliver immediate 'public benefit' (Southport Group 2011b: section 2.1.4), but without considering how these innovative new products would then be used by academic researchers at some point in the future. What the 'Southport Report' should have presented was policy documents, standards and guidance which would have regulated the commercial market system and ensured that an ordered, indexed and internally consistent Site Archive was produced and checked by independent academic 'peer review' *before* any innovative new products, because in a hundred years time or even in ten years time an ordered, indexed and internally consistent Site Archive will be of far more use to academic researches and fellow archaeologists than any form of 'grey literature' report, Synthesis Report or developer led publication.

The Southport Report appears to have had very little direct affect upon commercial archaeological organisations as the resulting policy documents were not enforceable

within an unregulated commercial market system and commercial companies could simply ignore them, although an unstated early aim of the Southport Report may have been an attempt to get the government and local Archaeological Monitors to agree that only IfA Registered Organisations (that abided by IfA accreditation standards and guidance) were considered as both ‘professionally qualified’ and suitably competent enough to bid for archaeological projects (Southport Group 2011a; Southport Group 2011b: section 4.2.27), thus making it possible for the IfA to impose acceptable academic standards and working practices.

In August 2011 the Scottish Government replaced *PAN 42* with a 23 page document entitled *Planning Advice Note 2/2011*, normally referred to as PAN 2/2011.

Scottish Office (2011) *Planning Advice Note PAN 2/2011: Planning and Archaeology*. Edinburgh: Scottish Office.

Although some of the wording in this document can be traced back to PPG16 (PAN 2/2011 2011: paragraph 20), most of the document reflects the accumulated changes which had occurred since the publication of NPPG5 / PAN 42 in 1994, however, it also placed fresh emphasis upon ‘the relative value of the [archaeological] remains and of the developments under consideration’ (<http://www.scotland.gov.uk/Publications/2011/08/04132003/1> (accessed 2014)), so the local Archaeological Monitors were still placed in the difficult position of having to decide what was or was not ‘reasonable’.

Then in March 2012 the British Government, Department for Communities and Local Government issued the *National Planning Policy Framework* for England, which consolidated 44 earlier planning documents, including 12 Planning Policy Statements and 9 Planning Policy Guidance notes, and is normally referred to as NPPF.

Department for Communities and Local Government (2012) *National Planning Policy Framework*. London: Department for Communities and Local Government.

This 65 page document was intended to streamline the planning process, and though it covered ‘Conserving and enhancing the historic environment’ in Section 12, it also removed the presumption in favour of conservation which had been introduced in PPS5 and replaced it with a ‘presumption in favour of sustainable development’ (NPPF 2012: paragraphs 11 to 16). How this is interpreted and used may depend upon local economic circumstances, the immediate needs of the local community, and the priorities of the local council and the local planning authority (including the resources allocated to the local Archaeological Monitors (<http://www.archaeologists.net/news/140331-continuing-threat-local-authority-archaeology-and-heritage-services> (accessed 2014); see also Kennedy, 2014; Participant Interview 13: 66.00), and the resources allocated to storing the Site Archive (Participant Interview 11: 64 - 68)), and in some areas of England in the mid 2010’s jobs and development had a higher priority than archaeology and heritage.

In Wales the Welsh Assembly Government issued a series of *Planning Policy Wales* documents which summarised the current planning guidance, including a summary of the archaeological planning guidance provided by the earlier *Welsh Office Circular 60/96* (WOC 60/96). The first of these documents, *Planning Policy Wales (Edition 1)* (PPW1) was published in March 2002, followed by (PPW2) in June 2010, and by February 2014 all of these very similar documents had reached (PPW6).

Welsh Government (2014) *Planning Policy Wales (Edition 6)*. Cardiff: Welsh Government.

The archaeological section of PPW6 (Chapter 6) closely followed *Welsh Office Circular 60/96*, and still contains the statement that ‘the planning authority *should* request the prospective developer to arrange for an archaeological field evaluation to be carried out before any decision on the planning application is taken’ (PPW6: paragraph 6.5.2) (*my emphasis*). It also states that ‘before granting planning permission the [planning] authority needs to be satisfied that the developer has made appropriate and satisfactory provision for the archaeological investigation and subsequent recording of the remains and the publication of the results’ (PPW6: paragraph 6.5.3). Wales does seem to have been able to adapt to developer funding and competitive tendering while still maintaining a commitment to archaeological standards, partly due to the early introduction of WOC

60/96 (Participant Interview 05: 36 - 46), partly due to the four Welsh Archaeological Trusts, which have maintained close links with the local community and local universities, and partly due to CADW and the support of the Welsh Assembly Government (Participant Interview 04: 36 - 37; Participant Interview 05: 30 - 33; Participant Interview 06: 21, 52 - 56).

Then in March 2014 (and updated in April 2014) the British Government, Department for Communities and Local Government also issued additional *Planning Practice Guidance* for England, which covered ‘Conserving and enhancing the historic environment’, and which presumably will become known as PPG.

Department for Communities and Local Government (2014) *Planning Practice Guidance*. London: Department for Communities and Local Government.

This constantly updateable internet document provided additional advice on how NPPF should be implemented, and encouraged local planning authorities to include non-designated heritage assets within their Local Plan (the plan of the future development of the local area, drawn up by the local planning authority in consultation with the local community), but still advised the local planning authorities that ‘decision-taking regarding such assets requires a proportionate response’

(<http://planningguidance.planningportal.gov.uk/blog/guidance/conserving-and-enhancing-the-historic-environment/> (accessed 2014)). It is also estimated that ‘following an initial assessment of archaeological interest only a small proportion – around 3 per cent – of all planning applications justify a requirement for detailed assessment’

(<http://planningguidance.planningportal.gov.uk/blog/guidance/conserving-and-enhancing-the-historic-environment/> (accessed 2014)), which presumably includes an archaeological field evaluation.

It is still too early to tell how individual Archaeological Monitors or commercial archaeological organisations will react to these new planning policy documents, however, the existing commercial trends appear to be continuing. A small number of very large commercial archaeological organisations have emerged each with a number of branch offices in different locations throughout the country, these include Oxford Archaeology,

Wessex Archaeology, The York Archaeological Trust, MOLA (Museum of London Archaeology) and increasingly Cotswolds Archaeology, which was established as a charitable trust in 1989 and which then took a decision to actively expand following the introduction of developer funding. The surviving medium sized archaeological organisations still operate mainly at a regional level and appear to have become more commercial in an attempt to both please the developers (in the hope of securing future work) and maintain management pay and conditions (primarily by cutting costs and overheads).

The smaller more commercial archaeological organisations usually operate locally and tend to undertake small to medium size archaeological projects to minimise cash flow problems, and this end of the market appears to be where most competition and most commercial pressure occurs (Participant Interview 13: 69.00, 117.00). To cope with this commercial pressure these smaller archaeological organisations may have developed their own distinct form of archaeological methodology which they then use both on site and during the post-excavation process, however, as these small to medium size archaeological projects are also the ones that are most likely to end up either as archaeological ‘grey literature’ reports or as just some form of Site Archive, it is usually difficult to establish exactly how these sites were excavated or how the ‘grey literature’ reports were actually produced.

As one of the interview participants put it when describing one of these commercial archaeological organisations, ‘it is an astonishing business model they have got, you know, it really is, it is, you take the size of the contract and you work out what the profit, what profit you will take from that project, and, you know, OK great, great, great, but then as we continued to talk’, ‘I realised that once that profit had been identified, it was completely inviolate’, ‘you know, that was it, doesn’t matter if you find extra archaeology or anything like that, you just trash it’, ‘and it was quite, it took my breath away, and, and they themselves, guys I used to dig with, you know, they say well I am not an archaeologist any more, we don’t give a toss about the archaeology, we make the profit, and they are talking like this, this is how they talk at business meetings’, ‘with their professional colleagues, no, you know, pretence’, ‘completely down the line’, ‘we will take this profit and nothing will touch it’ (Participant Interview 13: 117.00).

Another developing commercial trend may be small consultancy firms running their own archaeological excavations using recent graduates hired on short-term contracts for specific sites or by subcontracting to other commercial archaeological organisations, so in effect the developer's consultants are also acting as their own archaeological contractors with their own aims and objectives and their own commercial priorities, and this type of archaeological excavation can frequently lead to 'trash and dash' archaeological projects run purely for profit (Participant Interview 13: 68.00, 70.00). These small consultancy firms are themselves fully commercial organisations which compete by providing a money saving service to the developer or client. To quote directly from one of many similar websites:

Welcome to [REDACTED] Ltd.

Reducing the Cost of Archaeological Risk

[REDACTED] Ltd is a professional **Archaeological Consultancy**, providing planning advice and risk-management services.

With offices in [REDACTED] and [REDACTED] we cover the whole of the UK and beyond, providing:

- Early sensitivity and risk advice to minimise project risk associated with **Archaeology** and the **Historic Environment**
- The design and management of **Archaeological** and **Cultural Heritage** investigation and mitigation works
- A client-focused service you can trust in.

We work alongside our clients to keep projects moving from planning through to completion, ensuring that your scheme is finished on time and on budget.

[REDACTED] Ltd. was formed by [REDACTED] (BA, MA, MifA), to provide an independent archaeological and heritage consultancy service across the UK and beyond.

We put the needs of our clients at the heart of everything we do, providing the highest quality advice, products and risk-management to help you achieve the best results in relation to your heritage needs.

We work within the public and private sectors and our clients range from individuals through to large multi-national organisations. We manage anything from single plot developments and large-scale regeneration schemes to greenfield and urban developments. One of our key skill areas is in managing the fluid and often competing needs of schemes throughout their life-cycles.

Our services include early risk-management, design guidance and heritage constraint advice, along with a comprehensive suite of heritage consultancy services (e.g. full desk-top studies, Cultural Heritage Environmental Statements, Strategic Environmental Assessment, Conservation Management Plans and Heritage Strategies).

(All quotes taken from [http://www.\[REDACTED\].co.uk/](http://www.[REDACTED].co.uk/) (accessed 2013))

As another one of the interview participants put it, ‘if I tender for a one million pound job, I mean I’m good at this, I have been doing it now for a long time, I know it is a million pound job’, ‘and I know for a fact that it will be won by somebody doing it for three hundred thousand, I know that’ (Participant Interview 08: 25). The same interview participant also described another large infrastructure project which had four main design and construction contractors, each of which had their own archaeological consultant, and the interview participant was the only archaeological sub-contractor, ‘so they used to have project meetings where there were four archaeological consultants, we were doing all the field work, and because we were the sub-contractor we weren’t invited to the meetings’ (Participant Interview 08: 29). The interview participant then went on to say that this was just stupid, ‘but it’s a gravy train’, ‘and that project turned, that project turned from what should have been a quarter million pound project into one which in the end, the overspend was six million, not on archaeology but on the whole project’, ‘the archaeology was nearly a million, if you include the consultancy fees, absolute nightmare’ (Participant Interview 08: 29). All of those consultancy fees could have been spent on site actually doing archaeology.

Another developing commercial trend may be large infrastructure companies, such as Thames Water (<http://www.bajr.org/employment/> (accessed 2013)) and large opencast mining companies, such as Miller Argent (South Wales) Ltd. (<http://www.millerargent.co.uk/staff-profiles/c/73/i/80/> (accessed 2013)) employing their own Archaeological Advisors to assist their civil engineering departments and monitor machine activity in archaeological locations (Participant Interview 02: 26). Presumably these Archaeological Advisors are intended to manage and minimise any problems or ‘project risks associated with archaeology and the historic environment’, so in effect these large commercial companies are also running their own archaeological projects with their own aims and objectives, and their own commercial priorities.

Following the introduction of ‘developer funding and competitive tendering’ in the early 1990’s professional archaeologists were left with two separate commitments, the long standing commitment as set out in both the ‘Frere Report’ and the ‘Cunliffe Report’ of providing a public service to the local community and an accurate academic record of the archaeological stratigraphy for future generations, and a new commitment to the developer

as the client, and it was thought at the time that archaeologists would continue to be motivated by their long standing commitment to the local community and future generations, so a system was set up which had the archaeologists on the one side defending the archaeology and the developers on the other side attempting to complete their development project, with the local Archaeological Monitors arbitrating between the two and deciding what was or was not 'reasonable'. However, over the years commercial pressure has ensured that those archaeologists who had a commitment to the local community and future generations have been slowly squeezed out or superseded by those archaeologists who have a greater commitment to the developer as the client, and this has left both the archaeologists and the developers attempting to complete construction projects as quickly and as quietly and as profitably as possible, with only the local Archaeological Monitors defending the archaeology and the interests of the local community and future generations from both the developers and the less scrupulous and more commercially minded archaeological organisations, a role they were never intended to fulfil and one which is not fully supported by the existing legalisation. The only means that the local Archaeological Monitors currently have to protect the archaeology and the interests of the local community and future generations is the WSI (Written Scheme of Investigation) which is used to establish the specific aims and objectives of each individual archaeological project, as well as the methodology to be used and the local report and archive requirements as set by the City or County Archaeologist and/or the local Archaeological Monitors (and these vary from region to region depending upon individual City or County Archaeologist (Participant Interview 10: 70 - 72; Participant Interview 11: 67 - 72, 101 - 102)).

Once the archaeological project is close to completion the original Site Archive and all the various archaeological reports produced during post-excavation are then checked by the local Archaeological Monitors to ensure that they had fulfilled the WSI (Written Scheme of Investigation), as well as any other internal quality control documents or ClfA standards (which also depended entirely upon fulfilling the WSI (see Chartered Institute for Archaeologists 2014a)), so the entire system of both setting and maintaining academic standards depends entirely upon the individual Archaeological Monitors and the WSI for each individual archaeological project. However, the Archaeological Monitors primary role is to monitor planning applications and ensure that planning conditions are met and they therefore have very little time to check the academic quality of these archaeological

documents or the original Site Archive, especially after council cut backs in local planning authorities and local Archaeological Monitors (some of which are now only part time appointments (<http://www.archaeologists.net/news/140331-continuing-threat-local-authority-archaeology-and-heritage-services> (accessed 2014); see also Kennedy, 2014; Participant Interview 13: 66.00)). This checking then turns into a 'tick-box' exercise to indicate the presence of completed archaeological documentation (Participant Interview 05, 2013: 55 - 61) without considering the accuracy or academic quality of that archaeological documents, and the less scrupulous and more commercially minded archaeological organisations know this and also know that they do not therefore have to employ experienced archaeologists who are capable of producing archaeological documentation that would pass the equivalent of a full academic 'peer review'. So in the last 25 years we as archaeologists have managed to construct an unregulated commercial market system which has no enforceable national academic standards and which no longer contains a recognisable commitment to the basic principles of providing a public service to the local community and an accurate academic record of the archaeological stratigraphy for future generations.

CONCLUSIONS

It is possible to draw a number of general conclusions from this analysis:

1 The limited effect of most policy documents.

Although all of the policy documents have attempted to shape and define both the post-excavation process and the form and structure of the resulting archaeological reports and Archaeological Publications (usually in response to specific short-term problems) only the Frere Report and MAP2 have had an easily identifiable effect, and the other policy documents have had only a limited indirect effect, which in some cases has produced entirely unintended consequences. Other external changes have had an equal or a more significant effect upon both the post-excavation process and the form and structure of the resulting archaeological reports and Archaeological Publications, and these include changes in project funding (particularly the change from grant funding and MSC funding to developer funding and competitive tendering), changes in the legal planning policy documents associated with archaeological excavation (particularly the introduction of PPG16 and preservation *in situ*), and to a lesser extent changes in the editorial policies of local and regional archaeological journals and the move towards self publishing by some of the larger archaeological organisations.

All of these policy documents have proposed relatively small pragmatic changes to deal with immediate problems, and these relatively small, short-term changes have then had long-term, long lasting consequences.

2 The form and structure of archaeological reports and Archaeological Publications.

Archaeologists were not basing the post-excavation process upon the policy documents or any other form of academic or professional guidelines, but they were copying the form and structure of earlier reports and earlier publications (usually from within the same archaeological unit or archaeological organisation), altering or adapting them slightly depending upon individual circumstances and personal preferences, and then adopting a

post-excavation process which would produce that type of report or publication within the limits of the time and money available.

So although the form and structure of archaeological reports and Archaeological Publications has 'evolved' over time, the post-excavation process has changed more quickly mainly as a result of local circumstances and changes in project funding.

3 The process of producing archaeological interpretations.

Archaeological interpretation is an entirely personal process, not only in the decisions made but also in the methods and techniques used, and each individual archaeologist has developed their own personal collection of interpretative methods and techniques (a personal 'interpretative tool kit') which they then used to produce the archaeological information contained within the archaeological reports and Archaeological Publications. These individual interpretative methods and techniques were different way of producing the same type of archaeological information and some were more accurate and reliable than others, however, the choice of which interpretative method or technique to use did not depend upon accuracy or reliability, but upon the archaeologist knowing the method or technique and then upon their own personal preference and the time and money available.

So although the final archaeological reports and Archaeological Publications may look similar and have a similar form and structure, the interpretative methods and techniques used to produce the archaeological information they contain may have been completely different.

4 The initial changes to the traditional form of Archaeological Publication.

The initial changes to the traditional form of Archaeological Publication were brought about by the increasing size and complexity of archaeological excavations, and were intended to reduce the relative size and therefore the cost of Archaeological Publications by increasing the level of the interpretation and moving from 'preservation by publication' to 'preservation by record'. Although this did solved some of the publication problems by reducing the pressure on local and regional archaeological journals while still maintaining

both the relative size of Archaeological Publications and the academic obligation to publish the results of archaeological excavations this also adding to the size and complexity and therefore the cost of post-excavation projects, and this along with the growing number of mainly urban archaeological projects simply added to the publication backlog. It also introduced additional levels of interpretation into what had previously been a relatively straightforward stratigraphic interpretation (particularly the gradual introduction of possible dates of deposition into the Description Section), and by combining these interpretations within the Description Section it then became far more difficult for the reader to consider possible alternative interpretations and far easier for the Site Director or Site Supervisor to present a definitive description which would then support a particular interpretation within the Interpretation Section, although in theory it was still possible to trace individual archaeological interpretations back to the original records contained within the Site Archive.

The method of dating used is key to understanding how an archaeological interpretation was put together and how an archaeological report or an Archaeological Publication has been produced. The dating of archaeological deposits has always been problematic, every archaeologist has their own preferred way of doing it, but everybody appears to be very reluctant to talk about it, so the suspicion is that a lot of the time the dating of archaeological deposits is based more upon an educated guess and convenience rather than anything more objective.

5 The changes following the introduction developer funding, competitive tendering and MAP2.

The selectivity introduced by MAP2 was intended to focus the post-excavation research and control the growing cost of post-excavation projects by defining different levels of archaeological publication based upon the academic significance of the archaeological findings. However, this selectivity also removed the academic obligation to publish the results of all archaeological excavations, and growing commercial pressure following the introduction of developer funding and competitive tendering also led to both a continuing increase in the level of interpretation and a growing divide between those archaeological projects with sufficient funds to produce a full Archaeological Publication and an

increasing number of archaeological projects which only produced some form of archaeological 'grey literature' report. So what had been designed as a system for justifying additional grant funding upon academic grounds gradually became a system that could be used to cut costs to a bare minimum upon commercial grounds, and full Archaeological Publication then became the rare exception and not the rule, particularly within smaller archaeological organisations.

Growing commercial pressure also imposed an increasing need to take short cuts during both excavation and post-excavation projects, and this led to a gradual decline in the standards of archaeological records produced on site during excavation and a lack of time to produce an ordered, indexed and internally consistent Site Archive during the initial stages of post-excavation. It then became necessary to consider the archaeological records in the Site Archive not as an accurate reflection of direct observations made on site that then had to be accounted for and explained, but as basic 'field notes' which were always full of errors and inconsistencies that could then be either *changed* or ignored as required, and this eventually led to a fundamental change in the post-excavation process and a move away from a traditional 'bottom up' approach which constructed a possible interpretation from the archaeological records and towards a 'top down' approach which imposed a particular archaeological interpretation upon the archaeological records. So the increasing level of interpretation made it *possible* to adopt a 'top down' approach to archaeological interpretation, and growing commercial pressure made it *necessary* to adopt a 'top down' approach to archaeological interpretation.

Once a 'top down' approach to archaeological interpretation had been accepted it then became perfectly possible for a Project Officer to produce an integrated form of 'synthetic narrative history' or Synthesis Report which would just present an interpretation without an explanation of the methodology used (particularly the dating methodology used) and without having to justify every interpretation by direct reference back to the original archaeological records produced on site, and in many cases these Archaeological Publications would then become basic Client Reports. So over time the overall aims and objectives that archaeological reports and Archaeological Publications were intended to fulfil has also changed and 'evolved' from low level interpretations and the dissemination

of basic information to the presentation of much higher level synthetic interpretations, and from 'preservation by record' to a form of 'preservation by interpretation'.

Some of the larger archaeological organisations seem to have avoided the pressure to adopt a 'top down' approach to archaeological interpretation, partly by establishing and maintaining specialist post-excavation teams which prevented post-excavation from being an entirely individual process, but mainly by investing in database software which then required the completion of a digital Site Archive. The levels of technology have now reached the point where it should be perfectly possible to produce a GIS based archaeological database for each archaeological project, and this database could then be placed on the ADS website, the local or regional archaeological journal website and the archaeological organisations own website, along with any form of higher level interpretation report. Of course if these were *standard* GIS based archaeological database it would then be possible to directly compare large amounts of archaeological data from different archaeological excavations done by different archaeological organisations, and Archaeological Microhistory Reports would then be the most effective way of dealing with and digitising the existing archaeological information, particularly within an urban context. The difference in standards between those archaeological organisations who do use GIS based archaeological database and those who do not appears to be growing, but unfortunately, each of the archaeological organisations who do use a GIS based archaeological database are developing their own proprietary system because these systems deliver a distinct competitive advantage. The most appropriate form of standard GIS based archaeological database should be one that compiles and checks the Site Archive on-site during the excavation, so it is still possible to sort out any problems, errors or inconsistencies by direct observation of the archaeological stratigraphy, the archaeologists should then be able to leave the site with an ordered, indexed and internally consistent Site Archive including a finished Stratigraphic Matrix, which would then be ready for phasing, zoning and dating.

6 The resulting archaeological reports and Archaeological Publications.

The changes to archaeological reports and Archaeological Publications which have occurred over time were therefore driven primarily by the specific circumstances in which

individual reports and publications were produced, and the personal motivation of those who were producing them, as well as the limits imposed by the time and money available. This has led to gradual change over time, not necessarily in the form and structure of the archaeological reports and Archaeological Publications (which has ‘evolved’ slowly over time), but in the type of archaeological information they contain (which has changed more quickly), how that archaeological information was established (the post-excavation process used), and whether that archaeological information is accurate and reliable or not (the interpretative methods and techniques used). This has also led to wide regional variation, produced not only as a result of different legalisation and funding arrangements in England, Scotland, and Wales, but also due to the way that that legislation was implemented at a local level, and this could come down to the attitudes of specific individuals, local economic conditions, and the local report and archive requirements set by different City or County Archaeologists (Participant Interview 10: 70 - 72; Participant Interview 11: 67 - 72, 101 - 102; Participant Interview 18: 37.00). All of the resulting archaeological reports and Archaeological Publications are therefore single one-off non-standard documents with similar basic structures but different methodologies and standards of interpretation, each of which will ultimately depend upon the specific circumstances in which they were completed and the personal views and opinions of a specific individual at a specific time.

It is now difficult to tell exactly what is an archaeological report or what is an Archaeological Publication, whether these are definitive documents or not, and perhaps more importantly, how much reliance can be placed on the information they contain?

RECOMMENDATIONS

For almost 50 years archaeologists have been undertaking both rescue excavations and commercial excavations and have been producing archaeological records, archaeological reports and Archaeological Publications because at some point in the future someone will be able to do something meaningful with this information that will then change our understanding of the past and the history of our country, this is the reason why we as archaeologists undertake archaeological excavations and this is the reason why laws have been changed to allow us to do this, and this is the only reason why archaeology exists as a profession. Well, that point in the future has arrived and I have tried doing something meaningful with this information, and it is incredibly hard. It is incredibly hard because the reports and publications that have been written over the last 20 years are *not* designed to produce or provide consistent and comparable information that can be relied upon and then used for academic research, in most cases they are designed to complete archaeological projects as quickly and as quietly as possible so the developer can be invoiced and everyone can move on to the next project. This short-term approach to commercial archaeological projects has moved the basic underlying principles of archaeological excavation from ‘preservation by record’ and the production of an ordered, indexed and internally consistent Site Archives to ‘preservation by interpretation’ and the delivery of ‘public benefit’ simply because the current highly competitive, unregulated commercial market system cannot deliver ‘preservation by record’, and instead of addressing this fundamental problem it is far easier to simply ignore it and carry on with the current commercial system, without considering how the ‘innovative’ archaeological reports and Archaeological Publications produced by the current commercial system are to be used by academic researchers and future generations.

I would therefore like to make two linked sets of recommendations:

1 What to do with future archaeological reports and Archaeological Publications.

During the completion of this project it has become increasingly evident how much archaeological post-excavation and interpretation has changed over the last 50 years, and how much academic standards have declined in importance since the introduction of competitive tendering and commercial archaeology. Originally academic standards were set by basic academic principles and enforced by ‘peer review’, academic publication and the need for academic credit, with a ‘good publication’ establishing both the significance of a particular site and the archaeological reputation of a particular archaeologist, so failure to meet academic standards had direct professional consequences. The current system depends entirely upon the ‘Written Scheme of Investigation (WSI) or project design agreed by all relevant parties, as this is the tool against which performance, fitness for purpose, and hence achievement of standards, can be measured’ (Chartered Institute for Archaeologists 2014a: section 3.1.7), so the City or County Archaeologist and the local Archaeological Monitors are responsible for setting academic standards (which then depend upon personal preferences and the circumstances surrounding individual projects, thus leading to wide regional and local variation (Participant Interview 10: 70 - 72; Participant Interview 11: 67 - 72, 101 - 102; Participant Interview 18: 37.00)), and the same local Archaeological Monitors are then also responsible for enforcing academic standards (which due to local government cut backs and over work then turns into a ‘tick-box’ exercise intended to indicate the presence of completed archaeological documentation (Participant Interview 05, 2013: 55 - 61), but without considering the accuracy, consistency or the reliability of that archaeological documentation). Over recent year various policy documents have tried to address this situation, however, these documents have failed to realise that in a highly competitive, unregulated commercial market system there is a difference between setting academic standards and being able to enforce academic standards, so dealing with these points in order.

Setting Academic Standards:

To set academic standards it is first necessary to fully recognise that archaeological excavation is not a 'creative science' (Southport Group 2011b: sections 2.2.5), but is an academic discipline which has to conform to basic academic principles, and to fulfil those basic academic principles it is also necessary to fully recognise that all archaeological excavation is an unrepeatable experiment and that all archaeologists therefore have a fundamental obligation to:

- Produce an accurate record of the archaeological stratigraphy that they are destroying.
- Undertake further research to describe, interpret and explain the results of the archaeological excavation.
- Ensure that both the original records and the results of any further research are preserved and made widely available to both the local community and future generations of academic researchers.

All academic standards should therefore be based upon the use of a standard methodology and a structured form of interpretation to produce limited but reliable standard information in a standard format which can then be used for future research. This standard methodology and structured form of interpretation would involve completing the following stages in sequence:

1 THE SITE ARCHIVE

All of the archaeological records produced on site should be checked to ensure that there are no errors, omissions or inconsistencies and that they form an accurate record of the stratigraphic sequence and an ordered, indexed and internally consistent Site Archive (including a Stratigraphic Matrix), a (LEVEL 0 Interpretation).

All of the recovered artefacts and ecofacts should be processed and sent to individual Finds Specialists.

2 A STRATIGRAPHIC REPORT

The Site Archive (including the Stratigraphic Matrix) is then used to produce a Phase Matrix and an initial stratigraphic interpretation, and this initial stratigraphic interpretation is then used to produce a descriptive Stratigraphic Report containing individual Phase Group Descriptions.

This Stratigraphic Report should be a basic low-level stratigraphic interpretation of activity done by Phase Groups in sequence, including possible phasing and zoning, and based upon the primary records produced on site, basically a (LEVEL 1 Interpretation) roughly the equivalent of a Frere LEVEL III Report.

3 AN ASSEMBLAGE REPORTS

The various Finds Specialists would produce individual Specialist Finds Report which would contain basic information on identification, possible bracketed dates of manufacture and recommendations for further research, and these individual Specialist Finds Reports are then combined to produce an Assemblage Report containing descriptions of individual Stratigraphic Assemblages and initial assemblage interpretations.

This Assemblage Report should be a basic low-level assemblage interpretation of activity done by Stratigraphic Assemblages in order, including possible bracketed dates of deposition or spot dates' for specific Stratigraphic Units and possible phasing and zoning, and based upon the individual artefacts and ecofacts recovered from the site, basically a (LEVEL 1 Interpretation) which summarises the results from all of the Specialist Finds Reports for each individual Stratigraphic Unit.

4 AN ARCHIVE REPORT

The Stratigraphic Report (including the Phase Matrix) and the Assemblage Report are then combined to produce a Period Matrix and a dated archaeological interpretation, and this

dated archaeological interpretation is then used to produce a dated Archive Report containing dated Phase Group Descriptions in sequence, basically a (LEVEL 2 Interpretation) roughly the equivalent of a Cunliffe Summary Report or a DUA Archive Report and an Assessment Report combined.

This Archive Report should be structured in the same way as the interpretation process, so the completion of the Archive Report should guide, document and describe the entire archaeological interpretation. The structure of an Archive Report should therefore be:

- 1 **SUMMARY** The summary is intended to outline the nature of the site and the significance of the findings, so a reader can easily evaluate the relevance of the report to their particular area of interest.

- 2 **INTRODUCTION** The introduction should contain the site location and project background, a description of the topology and underlying sedimentology of the area, a description of the known historical development of the area along with the results of any previous excavations, a description of the excavational and recording methodology of the site based upon the WSI, a summary of the total archaeological evidence contained within the original Site Archive and the current location of the various parts of the original Site Archive.

This section would be based upon information contained within the Desk-Top Assessment Report, the Evaluation Report and the WSI (Written Scheme of Investigation).

- 3 **DESCRIPTION** The description should contain the Stratigraphic Report (including the Phase Matrix) and the Assemblage Report, both of which would be a (LEVEL 1 Interpretation).

- 4 **INTERPRETATION** The interpretation should contain a full explanation of the interpretation methodology (including the dating methodology), the Period Matrix, and a dated low-level archaeological interpretation done either by directly dating or by Historic Period and sequence, and based upon the basic interpretation of activity in sequence, basically a (LEVEL 2 Interpretation).

5 **CONCLUSION** The conclusion should contain a summary of the archaeological interpretation and a discussion of the wider implication of that interpretation.

This section is also intended to justify the recommendations.

6 **RECOMMENDATIONS** The recommendations should contain a brief description of the quantity, quality, range and condition of the various categories of archaeological information contained within the Site Archive, as well as a detailed description of the need for further research, the potential for further research and a review of the archaeological procedure.

This information would have been contained within the Assessment Report, however, Assessment Reports are no longer used to achieve their originally intended purpose (making the best use of limited grant funding), and this information can now be incorporated into the recommendations contained within the Archive Report.

7 **APPENDICES** All of the individual Specialist Finds Reports should be contained within the appendices.

All of this further research and additional information would then form a Research Archive, and all archaeological projects should reach this stage.

There is no reason why these initial stages of a post-excavation project should drag on for years and in most cases this is just a matter of setting priorities, so both the Site Archive and the Research Archive should be completed within a specific time period (set by the local Archaeological Monitor), and failure to meet this dead line should be reported to the CIfA.

These are the same basic archaeological principles ('preservation by record') that are set out in both the 'Frere Report' and the 'Cunliffe Report', however, the 'Cunliffe Report' failed to receive wider acceptance at the time it was written partly because it recommended the use of microfiche as the main means of preserving and dissemination both the Site Archive (Cunliffe 1983: section 4.9) and the Research Archive (Cunliffe

1983: section 4.10) and this was not really feasible because of practical problems and the need to re-writing large amounts of the original documentation (Jones 2001: section 2.3.3 and section 2.6.2). With advances in modern technology this is no longer a problem, and it is now perfectly possible to produce standard GIS based database systems and standard and compatible digital Site Archives and digital Research Archives for each archaeological project. Much of the mundane checking, sorting and cross-referencing, as well as basic error identification and correction can then be built into these relational databases, so direct data entry can take place on site during the excavation, and the databases can then assist in both structured interpretation and the preparation of standard reports, as well as in the dissemination of all the available archaeological information. The completion of standard and compatible digital Site Archives and digital Research Archives for each archaeological project should therefore become standard practice, and local Archaeological Monitor should ensure that this requirement is written into all WSI's. Many of the larger archaeological organisations have already developed their own GIS based database systems to create digital Site Archives, and it may be possible to establish a licensing scheme (under CIfA supervision) which would allow other archaeological organisations to use these standard database packages for an appropriate fee.

Once completed both the digital Site Archive and the digital Research Archive (including the Archive Report) should be submitted to the local Archaeological Monitor, who would then pass them on to the members of an independent Academic Standards Panel. This independent Academic Standards Panel would consist of three anonymous referees who are acknowledged archaeological experts from academia or the CIfA chosen by the local Archaeological Monitor to assess academic standards and undertake a full evaluation and academic 'peer review' of all the archaeological documentation produced during the archaeological project. This process would be similar to both the existing academic 'peer review' process used in academic publishing and the existing post-graduate academic examination process, and is intended to provide an element of academic quality control which would ensure the accuracy and the reliability of the information contained within both the digital Site Archive and the digital Research Archive.

This process would involve each member of the Academic Standards Panel completing a short Academic Review Report based upon the following basic guidelines:

- 1 *Planning*
 - ‘Did the Evaluation Report correctly predict the results of the excavation, and if not, was the Evaluation Report inadequate?’
 - ‘Was the original WSI appropriate?’
 - ‘Was the excavation adequately planned, financed and staffed?’
 - ‘Was the WSI fulfilled?’
- 2 *Documentation*
 - ‘Is the Site Archive ordered, indexed and internally consistent, and does it contain a Stratigraphic Matrix which is supported by the Plans and Sections?’
 - ‘Is the Phase Matrix and the Stratigraphic Report derived from the Stratigraphic Matrix and the archaeological records contained within the Site Archive?’
 - ‘Are the Specialist Finds Reports accurate and reliable, and do they contain the appropriate information or do they appear to be based upon outdated techniques or information?’
 - ‘Is the Assemblage Report derived from and supported by the information contained within the Specialist Finds Reports?’
 - ‘Is the Period Matrix and dating derived from the Phase Matrix and the information contained within both the Stratigraphic Report and the Assemblage Report?’
 - ‘Is the interpretation contained within the Archive Report derived from the information contained within both the Stratigraphic Report and the Assemblage Report?’
 - ‘Is the Archive Report clearly written and well presented?’
- 3 *Credibility*
 - ‘Is the recording methodology adequately explained?’

‘Does the Site Archive appear to be contrived?
(Do the Plans and Sections tie up and do the photographs show the same thing as the Plans and Sections?)’

‘Does the Stratigraphic Matrix appear to be contrived?
(Can the sequential relationships shown on the Stratigraphic Matrix be proved by direct reference to Plans and Sections?)’

‘Is the interpretation methodology adequately explained?’

‘Does the Phase Matrix and the Stratigraphic Report appear to be contrived?
(Is there any unsupported over interpretation?)’

‘Do any of the Specialist Finds Reports or the Assemblage Report appear to be contrived?
(Is there any unsupported over interpretation?)’

‘Is the dating methodology adequately explained?’

‘Does the Period Matrix and the Archive Report appear to be contrived?
(Can the individual interpretations contained within the Archive Report be traced back to the original archaeological records?)’

‘Does the Archive Report appear to provide a credible account of the sequence of contemporary ground surfaces?’

‘Does the Archive Report appear to provide a credible account of individual events?’

‘Are individual interpretations qualified to indicate appropriate levels of confidence?’

‘Are there any alternative interpretations which have not been considered or adequately accounted for?’

4 *Reflexivity* ‘Why did the author write the Archive Report?’

‘Is the author adequately self-aware and self-critical for the reader to understand their initial perspective and motivation?’
(Personal Reflexivity)

‘Has the methodology used distorted the findings?’

(Epistemological Reflexivity)

5 *Contribution*

‘Does the archaeological documentation and the Archive Report make a significant contribution to the local communities understanding of the area?’

‘Does the archaeological documentation and the Archive Report make a significant contribution to our understanding of the past?’

6 *Recommendations*

‘Base purely upon the archaeological significance of the results, should further research on the archaeological project be undertaken, and if so what from should that research take?’

‘Base purely upon the archaeological significance of the results, should this archaeological project proceed to full academic publication, and if so what from should that publication take?’

‘What further recommendations would the reader make to improve future archaeological projects and future archaeological practice?’

7 *Conclusion*

‘Should this archaeological documentation and the Archive Report be accepted, accepted with revisions which must be completed or rejected as inadequate?’

(If rejected the archaeological documentation will have to be redone and resubmitted.)’

(adapted from (Richardson 2000: 253 - 255); see also Willig 2001: 142 - 144)

These Academic Review Reports would be paid for by the archaeological organisation out of the project budget in the same way as short Specialist Finds Reports, but paid via the local Archaeological Monitor to maintain anonymity, and once completed copies of each individual Academic Review Report should then be sent to all relevant parties including, the local Archaeological Monitors, the archaeological organisation, the archaeological consultants and developers. Copies of each individual Academic Review Report should also be sent to the CIfA to provide feedback on best practice, and also to provide a mechanism for reporting the failure to meet appropriate academic standards.

Once accepted by all members of the Academic Standards Panel both the digital Site Archive and the digital Research Archive (including the Archive Report) should then be disseminated both on-line (so the databases remain up-to-date with the latest software releases) and as DVD ROM's (in case the on-line versions are lost or corrupted), and if necessary as print-on-demand (just in case or as a result of personal preference), thus achieving both 'preservation by record' and 'preservation by publication'. If recommended by the members of the Academic Standards Panel it would *then* be possible to proceed with full research and full academic publication, as well as any Synthesis Reports, journal articles or innovative developer led publications, and once this further research has been agreed by all relevant parties the local Archaeological Monitor can *then* sign off on planning permission.

This standard methodology and structured form of interpretation would therefore re-establish the basic archaeological principles ('preservation by record') that underpin all archaeological excavation, as well as re-establishing the link between the archaeological records and the archaeological interpretation. These basic archaeological principles can be summed up as follows:

- All archaeological interpretations should be constructed in stages from the original archaeological records contained within the Site Archive ('bottom up' interpretation), so all of the original archaeological records have to be accounted for and explained by the archaeological interpretations, and all archaeological interpretations have to conform to and be supported by the original archaeological records.
- Any archaeologist making an archaeological interpretation should, in theory, be able to 'prove it' by direct reference to specific Plans, specific Sections and the stratigraphic sequence, and it should therefore be possible for any reader to trace or track an archaeological interpretation back to the original archaeological records contained within the Site Archive, and so judge the validity of the archaeological interpretation for themselves.

These basic archaeological principles appear to be deeply rooted and long standing (Participant Interview 01: 14 - 15, 30 - 31; Participant Interview 07: 38 - 40; Participant Interview 18: 24.00, for an alternative view Participant Interview 17: 75.00; Participant Interview 18: 14.00) even if they are not currently applied, and their re-establishment, along with a standard methodology and a structured form of interpretation, would then provide the stratigraphic rigor needed to produce consistent and comparable standard information in a standard format (a standard GIS based archaeological database system) that can then be used for higher level interpretations. This structured approach to archaeological interpretation would also both clarify and codify the post-excavation process, and so establish national academic standards for archaeological post-excavation and interpretation which would then ensure that all archaeological organisations were operating at the same basic academic standard.

Enforcing Academic Standards:

In documents as far back as PPG16 it is stated that only ‘a professionally qualified archaeological organisation or archaeologist’ (PPG16 1990: paragraphs 20 and 21) should be allowed to undertake archaeological projects, and to quote from the Southport Report:

‘With emphasis on the ‘expert’ as a key principle of PPS5, it is time for professional standards and accreditation to be taken more seriously as the principal means for ensuring good practice.’

(Southport Group 2011b: sections 2.2.9)

So if all local Archaeological Monitors were to interpret ‘a professionally qualified archaeological organisation or archaeologist’ (PPG16 1990: paragraphs 20 and 21) to mean Cifa accreditation as an indicator of the highest standards of academic competence and ethical behaviour and have this interpretation written into all WSI’s, then only Cifa accredited archaeological organisations and individuals would be able to tender for archaeological projects. All Cifa accredited archaeological organisations and individuals would then have to comply with the Cifa accreditation rules and ‘Standard and Guidance for Archaeological Excavation’ (Chartered Institute for Archaeologists 2014a) or risk

having their CIfA accreditation removed, and this would create a single policy document which all archaeological organisations and individuals would have to comply with and follow. If the CIfA then decided that the successful completion of an archaeological project required the production and dissemination of an ordered, indexed and internally consistent Site Archive and that the above recommendations were to be incorporated into the CIfA 'Standard and Guidance for Archaeological Excavation' (Chartered Institute for Archaeologists 2014a), then academic standards could be set, monitored and enforced, and all commercial archaeological organisations would then have to produce a digital Site Archive and a digital Research Archive for the local community and future generations of academic researches, and the developers would just have to pay for it.

This would not only create a mechanism for establishing, assessing and maintaining professional academic standards and ethical behaviour, it would also introduce an 'academic level playing field' in which all commercial archaeological organisations would have to achieve the same academic and professional standards, and this 'academic level playing field' would then change the underlying working culture and ethos of commercial archaeology by promoting a feeling of accountability in which a failure to meet adequate academic standards would have direct commercial consequences, so all commercial archaeological organisations would then have to compete not only upon project cost, but also upon efficiency savings and their ability to maintain an experienced and competent work force capable of achieving these academic and professional standards.

2 What to do with existing archaeological reports and Archaeological Publications.

Ever since the private publication of *Excavations on Cranborne Chase* by General Pitt-Rivers in the late nineteenth century archaeology has been seen as a scholarly academic discipline which followed the traditional principles of academic research and publication.

These traditional academic principles had created a relatively simple and relatively long established general process for providing reliable academic information. This process started with some form of original research undertaken by an individual or a team of individuals, and once the research had reached a conclusion an academic article or an academic report would have been written, usually by a single named author. This academic article or academic report would then have been submitted to an academic publisher for possible publication. Upon arrival at the academic publishers the article or report would have been reviewed by an academic editor, and if accepted for possible publication the article or report would then gone through the standard academic publication process which would start with a full 'peer review' by two or more anonymous referees who were acknowledged experts in the particular field or subject. This 'peer review' provided an element of academic quality control by checking that the methodology was correct and that accurate conclusions had been reached, and that the article or report was suitable for publication. If the academic article or academic report passed the 'peer review' stage it would then have been accepted for publication, and may then have undergone a series of other reviews and edits before finally being published and disseminated to academic libraries and other academic institutions. The academic publishers therefore acted as academic 'gate keepers' by establishing, maintaining and protecting the academic reputation of their journals, monographs or publications, which was a valuable commercial asset that secured and maintained annual academic subscriptions. Finally, the named author or authors who had written the article or report would receive full academic credit for both the original research and any new discoveries that had been made, as well as the quality of the final article or report, based partly upon the academic reputation of the academic publishers or their journal, and this personal academic credit was essential for both professional advancement and future research funding. This relatively simple general process thus produced a carefully balanced self-regulating academic publication system in which it was in the interests of both the named

author or authors and the academic publishers to establish and maintain appropriate academic standards, and disseminate accurate and reliable academic information which their readers or 'end users' could then use and reference. The very act of publication was therefore seen as a guaranty of academic accuracy and reliability, as well as a means of dissemination.

This was the traditional academic approach that was adopted by the professional archaeological units when they were formed in the late 1960's and early 1970's, many of which had originally been set up by individuals who had left the early stages of academic careers (Jones 1984), and for whom academic credit from publications was an important part of carrier development, as it allowed for the possibility of movement between professional and academic archaeology. This traditional academic approach was then used to establish the basic research model adopted by professional archaeology. This basic research model was:

- 1 Excavation and post-excavation was undertaken at the level of an individual archaeological project.
- 2 Interpretation was undertaken by a single individual using various interpretative techniques and their own personal insight.
- 3 The end objective was to produce a single one-off Archaeological Publication completed for professional gain and academic credit.

Or put simply: 'one project, one author, one publication'

Alternative research models were possible, for example the archaeological units may have undertaken the excavation and the recording, and then passed that documentation onto the City or County Archaeologist who would then have undertaken the interpretation and publication, possibly including a number of neighbouring archaeological projects within the same publication ('multiple projects, one author, one publication', which is more or less the Italian research model, in theory at least), or a system may have developed in which a team of archaeologists would have undertaken the excavation and the recording, and then the same team of archaeologists would have used a structured form of interpretation to produce a joint publication, probably for the same overall cost but in far

less time than it would have taken a single individual ('one project, multiple authors, one publication'). However, the 'one project, one author, one publication' research model was a direct continuation of the basic research model used by earlier academic research excavations, which was itself based upon an even earlier tradition of having a single eminent and possibly knowledgeable individual in charge of a number of local labourers who did the physical digging under strict supervision.

This basic research model was therefore based upon the completion of individual archaeological projects which were initiated by individual development or construction projects, and were then defined either by the limits of the area excavated, the limits or 'footprint' of the actual development or the property boundaries of the area owned or controlled by the developers, thus producing specific archaeological sites and self contained archaeological projects which could be completed within a reasonable amount of time as an integral part of the overall development. The basic research model was also based upon the completion of both the interpretation and the final Archaeological Publication by a single individual, usually the Site Director or Site Supervisor. This provided a level of accountability by ensuring that the same individual who had made the main strategy decisions on site during the excavation was also responsible for dealing with the resulting archaeological records and the consequences of those decisions during post-excavation, and it also provided a level of consistency by ensuring that all of the interpretative decisions taken during post-excavation were made by the same individual, so in theory the final Archaeological Publication would present a single coherent interpretation of the entire archaeological site. The Site Director or Site Supervisor would also have been personally motivated to complete the post-excavation by the traditional academic principles underlying all archaeological excavation, a sense of personal obligation having directed or supervised the original archaeological excavation, and a need for the academic credit that the completion of the final Archaeological Publication would provide. This personal motivation, particularly the need for academic credit, would therefore in theory ensure that the Site Director or Site Supervisor eventually produced some form of Archaeological Publication, which would then present a single coherent (although also personal) interpretation of the entire archaeological site, and the entire archaeological project as the work of a single individual. The basic research model adopted by professional archaeology was therefore a direct continuation of the earlier academic tradition which considered that the completion of the Archaeological Publication

was both the personal responsibility of the Site Director or Site Supervisor and a personal opportunity for the Site Director or Site Supervisor to gain academic credit and further either an academic or professional career, with the end objective being a ‘good publication’ which not only presented the results of the excavation, but which also enhance the reputation of both the author and the archaeological unit.

Once adopted this basic research model became so firmly established within professional archaeology that it has remained unchanged and unchallenged ever since, regardless of the constantly changing circumstances. So at the start of professional archaeology Site Directors and Site Supervisors were expected to complete post-excavation projects, and were personally motivated by academic principles, a sense of personal obligation and a need for the academic credit that an Archaeological Publication would provide. However, as post-excavation projects increased in both size and complexity the resulting Archaeological Publications also increased in size and complexity (and therefore cost), and more personal effort and commitment was needed to complete them. This meant that some Site Directors or Site Supervisors became more reluctant to start post-excavation projects which they could delay for either short periods of time if neighbouring areas were due to become part of the same redeveloped or if additional people were required on site, or indefinitely if they were stockpiling post-excavation projects to act as a guaranty of continued employment, although those same individuals still wanted the academic credit for the archaeological projects they had directed or supervised, and so were also reluctant to let anyone else complete *their* Archaeological Publications. So regardless of whether post-excavation projects were being delayed or were being stockpiled the end result was still a gradual increase in the number of abandoned or partially finished post-excavation projects and the start of the ever present ‘publication backlog’.

Then the introduction of developer funding and competitive tendering in the early 1990’s ensured that all archaeological projects were inextricably linked to individual development or construction projects, and these funding arrangements locked in the basic research model and ensured that all archaeological projects were considered and dealt with as specific archaeological sites and self contained archaeological projects regardless of their size or complexity. However, the introduction of developer funding and competitive tendering also led commercial archaeological organisations to change their attitude

towards individual Project Officers, and the ability to complete archaeological excavations on time and under budget became far more important than academic credit and the ability to write up an excavation and produce an Archaeological Publication, and this decline in the importance of academic credit, along with the increasing complexity of post-excavation projects caused by poor on site recording and the limited time available to complete an Archaeological Publication meant that post-excavation projects became a considerable personal undertaking for no real benefit, so there was no real incentive to produce an Archaeological Publication. This led to an even greater general reluctance to undertake post-excavation projects, particularly large post-excavation projects, and what had once been considered a personal obligation and a personal as well as professional responsibility gradually became seen as a personal burden and something to be personally avoided if at all possible, with many Project Officers changing jobs or applying for promotion after completing large archaeological excavations, but before completing the final Archaeological Publication. This in turn led to an increase in the use of 'grey literature' reports, Synthesis Reports, and more partially finished post-excavation project, which as these were still seen as the personal responsibility of individual Project Officers were generally considered as someone else's problem and were therefore effectively abandoned. So although the driving force behind the basic research model had changed over time from personal academic credit to individual project funding the 'one project, one author, one publication' research model still remained the same.

All of the policy documents produced during this period attempted to address particular aspects of these various problems by raising the level of interpretation and by becoming more selective, but while still preserving and maintaining the basic research model unchanged. However, these compromises just created more problems by increasing both the size and complexity of post-excavation projects, and they also preserved and maintained a theoretical approach that had a tendency to see all archaeological projects as single self contained experiments with specific short-term aims and objectives, and this in turn produced single one-off non-standard reports and Archaeological Publications with similar basic structures but different methodologies and standards, and which ultimately relied upon the personal views and opinions of a single individual at a specific time. These reports and Archaeological Publications then depended upon 'peer review' and the academic publication system to establish and maintain appropriate academic standards, however, the quality of 'peer review' depended upon the academic publisher and may

have been based not upon 'validity' or 'accuracy' but upon 'acceptability', and 'grey literature' reports would never have received any form of 'peer review' or even basic editing.

So ever since the private publication of *Excavations on Cranborne Chase* in the late nineteenth century the basic research model has remained more or less unchanged, and what archaeologists are therefore currently using is a late nineteenth century method of producing and disseminating archaeological information.

This basic research model has therefore created and made available large amounts of archaeological information, however, these reports and Archaeological Publications are isolated one-off non-standard documents which have been produced at different times using different methodologies and are also of variable quality and validity. These variations and discrepancies then make it very difficult to *actually use* these documents to produce consistent, reliable and comparable archaeological information from different archaeological projects within the same general area for higher level interpretations, and though this may not create an immediately obvious problem when simply referencing self contained research excavations or isolated rural excavations, it does create considerable problems within urban areas where there are multiple related sites in close physical proximity and complex urban stratigraphy which has to be accounted for and explained.

Over recent years the rate of urban redevelopment has increased, and in many towns and cities there are now particular streets or districts where all of the properties have either been recently redeveloped or are subject to preservation orders, so effectively these areas are archaeologically 'dug out' and are unlikely to provide any additional archaeological information in the foreseeable future. This temporary pause in the redevelopment cycle provides an opportunity to review and re-assess all of the available archaeological information from within a specific limited geographical area, such as a particular street or district within a town or city, and merge that archaeological information, along with additional information from standing building reports, historical documentary evidence and early maps to produce an integrated archaeological interpretation of the entire area, which would then act as both a form of detailed independent 'peer review' and a summation of all the existing archaeological information from within this specific limited

geographical area at the same basic level of interpretation. This form of integrated archaeological interpretation or Archaeological Microhistory would also provide an opportunity to reconsider the basic research model, and establish a more appropriate alternative or additional higher level research model which could then be applied to the review and re-assessment of all forms of existing archaeological information, particularly within urban areas. This alternative research model would be:

- 1 Merge all of the existing archaeological information and basic historical evidence from within a specific limited geographical area, such as a particular street or district within a town or city which has effectively been archaeologically ‘dug out’ by recent redevelopment.
- 2 Interpretation is undertaken by a team of individuals using a standard methodology and a structured form of interpretation.
- 3 The end objective is to produce a standard Archaeological Publication, and consistent, reliable and comparable standard information for higher level interpretations.

Or put simply: ‘multiple projects, multiple authors, one standard publication (and a standard GIS based archaeological database)’

So dealing with these points in order.

A Specific Limited Geographical Area:

This alternative research model would therefore provide an opportunity to change the basic unit of urban interpretation from individual archaeological sites defined by modern development projects to a specific limited geographical area, such as a particular street or district within a town or city which has effectively been archaeologically ‘dug out’ by recent redevelopment and where no more archaeological excavations are likely to occur within the foreseeable future. If this limited geographical area was clearly identifiable as a single contiguous geographical unit associated with and possibly isolated by recognisable physical features, such as rivers, roads, walls, major property boundaries, or even

medieval parish boundaries or administrative boundaries, then these identifiable physical or administrative boundaries may have also formed 'cognitive boundaries' which would then contribute to both the formation and the wider acceptance of a specific geographical area as a possible 'neighbourhood' with a specific place name which would then act as a label (Pacione 2005: 372 - 382; Gottdiener and Budd 2005: 92 - 95; Gottdiener and Hutchison 2006: 194 - 197; Knox and Pinch 2006: 188 - 194; Pellow 2002). The existence of a possible 'neighbourhood' may then have contribute to the formation of a 'local community', broadly defined as a number of individuals who have developed a 'shared sense of belonging' both to each other through frequent social interaction and to a particular geographical location where that social interaction occurred and where these social relationships were established and maintained, and this sense of community is then reinforced if these individuals share the same social identity or 'minority' ethnic identity, and are possibly related (Pacione 2005: 372 - 382; Gottdiener and Budd 2005: 11 - 15; Gottdiener and Hutchison 2006: 194 - 197; Knox and Pinch 2006: 188 - 194; Pellow 2002). These linked concepts of possible 'neighbourhood' and 'local community' therefore provide more appropriate analytical units for archaeological interpretation as they define both a specific limited geographical area and a possible social unit where similar social and economic change may have occurred (see also Harris, Sleight and Webber 2005).

A Standard Methodology and a Structured Form of Interpretation:

This alternative research model would also provide an opportunity to undertake a full review and re-assessment of all of the available archaeological information from within this specific limited geographical area, including existing Archaeological Publications, 'grey literature' reports, incomplete and abandoned post-excavation projects and original Site Archives, and then re-evaluate the accuracy of that archaeological information and extract relevant and comparable data. (This is basic 'source criticism' and data preparation, in effect applying the standard 'historical method' to archaeological reports and publications, as well as all other forms of archaeological documentation.) Once the relevant information has been compiled and checked it would then be possible to use a standard methodology and a structured form of interpretation to combine and merge all of the available archaeological information, along with additional information from standing

building reports, historical documentary evidence and early maps to produce an integrated archaeological interpretation based upon roads, paths, physical boundaries, and individual properties and structures within the contemporary physical environment. This structured form of interpretation would consist of a consecutive series of specific interpretative decisions ('bottom up' interpretation), starting with detailed interpretations which would place the large amount of interdependent archaeological evidence produced by complex urban stratigraphy firmly within a sequential and chronological context, and then building in complexity and completeness towards descriptive and discursive interpretations and a final synthesis. This structured approach to archaeological interpretation would reduce the complex interpretative process to a large number of relatively simple interpretive decisions based upon specific archaeological evidence and a high burden of proof, and would therefore supply sufficient co-ordination to allow individual archaeologists to make similar interpretative decisions and so produce consistent and comparable information, both within the same archaeological project (thus allowing a number of individuals to work upon the same interpretation), and between different archaeological projects (thus allowing higher level interpretations to be made over a much wider area). This form of structured team research with multiple researchers would make archaeological interpretation 'a collaborative process' which would lessen the effect and significance of personal views and opinions and make basic archaeological interpretation more like standard data preparation, as well as making it more likely that the final Archaeological Publication would be fully completed because the entire project would not be the responsibility of a single individual, so instead of one individual spending ten years attempting to complete an Archaeological Publication, ten individuals could complete the same Archaeological Publication in one year for no extra cost.

A Standard Archaeological Publication:

This alternative research model would finally provide an opportunity to present this integrated archaeological interpretation within a standard Archaeological Publication or Archaeological Microhistory Report which would then act as both a summation of all the existing archaeological information from within the specific limited geographical area, and a form of independent 'peer review'. This standard Archaeological Publication would conform to traditional academic standards and be structured in the same way as the

interpretation process, so the compilation and completion of the Archaeological Microhistory Report would guide, document and describe the entire archaeological interpretation, finally producing consistent, reliable and comparable information which can both be checked against the original archaeological documentation and be made available in a standard form and format for higher level interpretations and wider historical research and analysis. The structure of an Archaeological Microhistory Report should therefore be:

1 **SUMMARY** The summary is intended to outline the nature of the area covered by the Archaeological Microhistory Report and also to provide a basic summary of the interpretation by historic period, so a reader can easily evaluate the relevance of the report to their particular area of interest.

2 **INTRODUCTION** The introduction should contain a basic description of the area covered by the Archaeological Microhistory Report.

This would include a description of the precise boundaries of the specific limited geographical area covered by the Archaeological History Report and an explanation of why those boundaries were chosen as a possible neighbourhood, as well as a brief description of the known historical development of the area.

This would also include a full list of all the sources of archaeological information covered by the Archaeological Microhistory Report, as well as a brief description of the individual archaeological projects and the current location of the original archaeological documentation.

3 **SITE DESCRIPTIONS** This section should contain standard descriptions of each of individual archaeological project contained within the area covered by the Archaeological Microhistory Report. Each of these individual site descriptions should therefore consist of:

An introduction to the archaeological project which would provide a basic project history, including first site location and project background, followed by a description of the actual archaeological excavation, including a description of the excavational and recording methodology used and the basic working conditions (including the time and money available and the

staffing if possible), and finally a critical examination of both the resulting Site Archive and the post-excavation project including an evaluation of any reports or publications produced with specific attention given to the interpretation and dating methodology used.

This would act as both basic ‘source criticism’ and a form of independent ‘peer review’ which would clearly indicate the accuracy of the archaeological documentation produced and reliability of the archaeological interpretations.

It would then be necessary to use all of the available archaeological documentation to compile standard information based upon a reconstruction of individual Phase Matrixes for each site or trench and detailed Phase Groups Descriptions in both stratigraphic sequence and relative time with direct reference to specific Plans, Sections and OD heights, and including location photographs and general ‘working shots’ (intended to illustrate and describe the working conditions during the excavation) and direct reference to the recovery of specific Artefacts or Ecofacts, such as the precise location of coins or C14 samples (but without going into detailed descriptions).

(This would produce a basic low-level stratigraphic interpretation of activity done by Phase Groups in sequence including phasing and zoning, and based preferably upon the primary records produced on site, basically a (LEVEL 1 Interpretation). This would be the equivalent of a descriptive Stratigraphic Report (as described above) for each archaeological project, and any existing Stratigraphic Reports would fit straight into the Archaeological Microhistory structure.)

This section may also contain a brief list of all the other sources of additional information, such as standing building reports, historical documentary evidence and early maps, and some indication of their accuracy and reliability, as well as an indication of how access to these additional sources may be obtained.

- 4 **AN AREA/DATE TABLE** This section should contain a full explanation of the dating methodology used, and a clear indication why specific Phase Groups were considered as being ‘securely dated’.

To link the separate sites and trenches and produce a basic interpretation of the contemporary ground surface across the entire area it would then be necessary to construct an Area/Date Table. This Area/Date Table would use the local date framework consisting of a number of consecutive Historic Periods as its vertical axis, and then the various Phase Matrixes may be laid out along the horizontal axis in an order which would roughly correspond to their geographical location, thus producing a large multiple site Period Matrix. The 'securely dated' Phase Groups may then be positioned within the appropriate Historic Period, thus linking separate sites and trenches while still maintaining an element of 'controlled uncertainty' within each Historic Period. It would then be possible to incorporate additional information from standing building reports (including OD heights) and specific documentary evidence (such as the recorded date of the construction of specific buildings or structures) into the same Area/Date Table at the appropriate vertical points within the local date framework.

Once all of the available information has been placed on the Area/Date Table it would then be possible to compare both the physical descriptions of similar deposits and their OD heights on neighbouring sites and trenches, and by adjusting the vertical position of individual Phase Groups within the limits imposed by the stratigraphic sequence and the 'securely dated' Phase Groups it would then be possible to visualise all of the archaeological evidence and so reconstruct the contemporary ground surfaces across the entire area at any particular point in both relative time and absolute time (see Fuller's Hill Area/Date Table contained within the folder attached to the back cover of this volume).

This reconstruction of the contemporary ground surfaces can then be checked against the historical documentary evidence and the early map evidence, thus producing an integrated archaeological interpretation based upon roads, paths, physical boundaries, and individual properties and structures within a contemporary physical environment.

(This would produce a dated low-level archaeological interpretation done by Historic Period and sequence, and based upon a basic interpretation of the contemporary ground surface at specific points in relative time, basically a (LEVEL 2 Interpretation) but without the dated text description.)

This section may also contain a brief reflexive account of the interpretation process explaining why particular interpretative decisions had been made.

- 5 **AREA INTERPRETATION** This section should start with a brief description of the underlying geology and sedimentology of the area, followed by a detailed description of the original topography of the entire area prior to the first identifiable human occupation, including precise OD heights and any information from bore hole surveys, as well as the possible OD heights of any river levels or tidal ranges.

Having established the original topography of the entire area it would then be possible to describe the archaeological interpretation of the contemporary physical environment contained within the Area/Date Table by individual Historic Period in chronological sequence. Each of these consecutive Historic Periods should therefore consist of:

Each Historic Period would start with a basic introduction which would describe the long-term environmental or topographical changes in the general area, including precise OD heights and the possible OD heights of any river levels or tidal ranges, thus setting the scene for the rest of the area interpretation.

The reconstruction of the contemporary ground surfaces established by the Area/Date Table would then be described as a sequence of dated *historical events* within both individual properties and the contemporary physical environment with direct reference to interpretative Plans and drawings at specific points in both relative time and absolute time, and including general publication photographs and specific ‘record shots’ (intended to illustrate and describe specific deposits and features), as well as basic descriptions of specific objects, individual stratigraphic assemblages and the likely environmental conditions within individual properties. These descriptions of dated *historical events* within the contemporary physical environment should take the form of a clear, consistent and credible ‘historical narrative’ which would ‘present the past as a sequence of presents, each with its own unknown future’. All interpretations should therefore be justified by supporting evidence and qualified to indicate appropriate levels of confidence or probability, any

possible alternative interpretations should be considered and adequately explained, and it should also be possible to acknowledge uncertainty when there is contradictory evidence or when there is insufficient evidence to reach a probable interpretation.

(This would produce a *descriptive* mid-level area interpretation which would attempt to reconstruct the contemporary physical environment and the development or decline of the entire area as a sequence of dated *historical events*, and based upon all of the dated archaeological information and specific documentary evidence, basically a (LEVEL 3 Interpretation).)

Each Historic Period would then conclude with a detailed discursive synthesis of the Historic Period, including the wider historical background and a description of the various stages of the development or decline within the area, as well as a discussion of the possible reasons for that development or decline (individual initiative or wider social or economic change, organic change or planned development) highlighting evidence of underlying social and cultural trends and describing how they contributed to or were influenced by wider historical trends and specific historical events.

(This would produce a *discursive* mid-level area interpretation which would attempt to produce a historical synthesis of the entire area, highlighting evidence of underlying *historical trends*, and based upon all the dated archaeological information, the results of specialist research and analysis, and additional historical and documentary evidence, basically a (LEVEL 4 Interpretation).)

If there is sufficient available evidence it may also be possible include a number of Themed Notes or Essays. These Themed Notes or Essays would be written by a named author on a specific subject, and would be included within the main text in grey background boxes either at the end of a Historic Periods or at the end of the Area Interpretation. These Themed Notes or Essays would therefore act as individual historical case studies and may include:

A detailed description of both the domestic living conditions and the domestic everyday life of the individual or group of individuals who occupied or controlled a specific domestic residential properties at a specific time, as well as the identification and description of individual practices and particular patterns of behaviour (this may be seen as Historical Anthropology).

A detailed description of the ‘everyday lives’ and the ‘lived experience’ of the local residents of a specific limited geographical area at a specific time, the ability those individuals had to control their own lives, and the ‘survival strategies’ they used to cope with the underlying socio-economic reality of everyday life, as well as a more general explanation of the way the small community or local neighbourhood functioned on a day-to-day level (this may be seen as Historical Sociology).

A detailed description of the long-term development or decline of specific public buildings, specific domestic properties or specific local craft industries, manufacturing or trade over time (this may be seen as detailed Local History).

Although the main text would represent the most probable interpretation of the archaeological and historical evidence it may also be possible to use these Themed Notes or Essays to describe possible alternative interpretations of the same evidence by different team members.

- 6 **CONCLUSION** The conclusion should contain a general description of the results of the Archaeological Microhistory Report highlighting the evidence of specific *historical events* and wider *historical trends*, as well as the long-term underlying social and economic change within the specific limited geographical area.
- 7 **RECOMMENDATIONS** The recommendations should be a method of developing and improving an understanding of the local area and should therefore include detailed descriptions of specific areas which require further research, such as re-adjusting the local date framework to include local date lines or re-assessing the local pottery dates of common use to provide a more accurate dating methodology.

- 8 **APPENDICES** The appendices should contain all previously unpublished information, such as all previously unpublished Specialist Finds Reports, as well as the equivalent of a descriptive Assemblage Reports (as described above) for each individual site or trench.

This entire interpretation process would involve re-examining large amounts of existing archaeological information from various sources and converting that information into a similar format and structure so that it is both reliable and compatible, and this can best be done by using a standard GIS based database system. The completion of an Archaeological Microhistory Report would therefore also provide an opportunity to digitise all of the existing archaeological information from all of the previous archaeological excavations within the specific limited geographical area and make that information more widely available in a standard GIS based format.

This would involve first scanning all of the original archaeological documentation, including the Plans, the Sections and the photographic slides (all slides should be scanned at 4800 dpi, 48 bit RGB and stored as lossless TIFF files), and then producing digital security copies. Many paper archives from the 1970's and 1980's appear to be deteriorating (depending upon storage conditions) and this may be the last chance to review site documentation from previous excavations before it disintegrates or becomes illegible, and the same may be said for the photographic slides which appear to be yellowing with age. It may even be possible to turn microfiche documents back into readable digital records (Participant Interview 11: 124).

Once all of the original documentation has been scanned and secured it should then be possible to review and reassess all of the information contained within original Site Archives, and then produce consistent and comparable standard information in a standard format (a standard GIS based database system). This would include digitising all of the original Plans and Section and reconstructing individual digital Phase Matrixes for each archaeological site or trench, and then producing the equivalent of a digital Stratigraphic Report (as described above). This would also include checking all of the existing Specialist Finds Reports to see if they need updating in the light of more recent research,

and then producing standard Stratigraphic Assemblage information and a standard GIS finds database by individual properties and either SU Number or Phase Group Number, and the equivalent of a digital Assemblage Report (as described above), thus making it easier to produce integrated interpretations of the contemporary material culture. (Any existing digital Site Archives and digital Research Archives (including digital Stratigraphic Reports and Assemblage Reports) as described above should fit directly into the Archaeological Microhistory Report structure with only minimum reworking.) It may also be possible to produce additional digital information, so for example the completion of an Archaeological Microhistory Report may also provide an opportunity to digitise ground plans from standing building reports and all of the early maps of the area and then position these in a standard GIS based format.

The standard GIS based database system should also be designed and structured to assist in the analysis and interpretation of this standard information by allowing archaeologists to use the Area/Date Table to manipulate the phasing and so test the consequences of different interpretative decisions on GIS based Phase Plans of the contemporary physical environment in both relative time and absolute time (and including both OD heights and the possible date for the establishment of roads, paths, physical boundaries, and individual properties and other structures), as well as presenting the contemporary material culture within individual properties at different points in relative time, thus reducing complex inter-related interpretations to an assessment of probability based upon all the relevant information.

With this standard methodology and structured form of interpretation it would then be possible to have a team of archaeologists working on the same archaeological interpretation and the same Archaeological Microhistory Report at the same time, so for example different team members could prepare standard information from different sites or trenches and then feed that information into the standard GIS based database system, and all of the team members could then work on the Area/Date Table to produce a probable interpretation, and finally different team members may be responsible for producing the text for different Historic Periods, with some team members eventually specialising in specific Historic Periods.

Once completed the final Archaeological Microhistory Report should be submitted to an academic board for full academic 'peer review' and quality control (Nentwich 2004), and then both the Archaeological Microhistory Report (possibly with hyperlinks) and the standard GIS based database should be disseminated on-line, possibly with a version of the Area Interpretation section of the Archaeological Microhistory Report published as a separate Synthesis Report or as a journal article.

These Archaeological Microhistory Reports should be proposed or commissioned independently by the local Archaeological Monitors based upon local knowledge of a specific limited geographical area as both a possible neighbourhood and an area where there is unlikely to be any further archaeological excavation within the foreseeable future. The funding should remain outside the domain of developers and commercial archaeological organisation to preserve a level of objectivity, and should therefore come from governmental organisations with additional support from sponsorship, local government or crowd funding activities, and the Archaeological Microhistory Projects themselves should be run by university archaeology departments as research projects, possibly leading to post-graduate academic qualifications.

This form of re-evaluation of existing archaeological information and the production of multiple site interpretations is therefore not dramatic history changing research, but it is the mundane data preparation and dissemination which would make dramatic history changing research possible.

- It would make the most effective use of both the existing archaeological information, and the archaeological information generated by current commercial archaeology.
- It would extend the structured and standardised approach to archaeological recording used on site into basic archaeological interpretation, so basic archaeological interpretation would become not a series of personal views and opinions intended to produce an archaeological publication, but a team activity and a form of data preparation intended to produce usable information in a standard format.

- It would radically change the limited objectives and spatial perspective of current archaeological interpretation, moving it away from the physical limits and constraints of individual archaeological projects, and towards re-constructing and understanding the contemporary physical environment and the everyday lives of individuals within individual properties, a (LEVEL 3 Interpretation).
- It would create more integrated archaeological and spatial information which would then allow for a wider understanding of the formation and function of the local neighbourhood and the local community and how they changed over time, and whether that change was the result of local social and cultural trends, wider historical trends or specific historical events, a (LEVEL 4 Interpretation).
- It would also re-adjust and re-define general research objectives by producing consistent, reliable and compatible standard spatial and chronological information in a standard format (a standard GIS based database) which may then over time be linked to other Archaeological Microhistory Projects (and other standard GIS based databases) across an entire town or city, and so provide reliable standard information for wider archaeological Urban Analysis. This form of Urban Analysis would attempt to describe and explain how day-to-day life and the day-to-day urban mechanisms and processes operated beneath the influence of actual historic events, based primarily upon the socio-spatial approach used by urban sociologists and urban geographers to analyse the spatial structure of modern towns and cities (Gottdiener and Budd 2005: 140 - 145; Gottdiener and Hutchison 2006: 186 - 193; Knox and Pinch 2006). This form of Urban Analysis would therefore include both the socio-spatial development of the urban area, such as patterns of urban land use and the formation and function of neighbourhoods and local communities (Pacione 2005: 372 - 382; Gottdiener and Budd 2005: 11 - 15, 92 - 95; Gottdiener and Hutchison 2006: 194 - 197; Knox and Pinch 2006: 188 - 194; Pellow 2002), and the socio-economic development of an urban area, such as manufacturing, commerce and long distance trade routes, and the use of a basic urban economic model (based upon individual properties and dividing the contemporary material culture into basic commodities, lower circuit trade goods, upper circuit trade goods and real estate (Santos 1979)), as well as wider interpretations of cultural, social and ethnic identity (Barth 1969; Bourdieu 1977, Giddens 1984; Jenkins 1996), basically a (LEVEL 5 Interpretation).

- The existence of large amounts of reliable archaeological information (in standard GIS based databases) would also open archaeology up to new theoretical approaches derived from other academic disciplines, such as urban geography, urban sociology or urban economics, as well as reverse geodemography (see Harris, Sleight and Webber 2005), and this would have significant implications for both urban archaeological practice and wider historical research and analysis.

This form of re-evaluation may therefore be described as ‘the archaeology of archaeological documentation’, and would require the development of both a *new theoretical approach* to archaeological recording and archaeological interpretation and a *new standard methodology* specifically designed to produce consistent, reliable and comparable information, but first it would require a standard Stratification Theory (Davies 2000) which would explain how archaeological stratigraphy can be sub-divided into individual Stratigraphic Units (each of which represents the physical evidence of a single activity), and how these Stratigraphic Units relate to each other to form a single stratigraphic sequence in relative time.

APPENDIX 1

A USER'S GUIDE TO ARCHAEOLOGICAL REPORTS AND PUBLICATIONS

‘But then how can we trust ancient wisdom, whose traces you are always seeking, if it is handed down by lying books that have interpreted it with such licence?’

‘Books are not made to be believed, but to be subjected to inquiry. When we consider a book, we mustn't ask ourselves what it says but what it means.’

(Umberto Eco, THE NAME OF THE ROSE)

So to summaries, a great number and variety of archaeological reports and publications have been produced by professional archaeologists since the late 1960's, and even though each of these reports and publications are unique documents produced by specific individuals, in specific circumstances and for specific reasons, they do fall into a number of broad descriptive categories each of which has a recognisable form and a similar basic structure.

However, over time both the interpretative techniques used during post-excavation projects and the actual post-excavation methodology used to produce these documents has gradually changed, so although the archaeological reports and publications from each category may look the same or very similar, they remain single isolated one-off non-standard documents with similar basic structures but different methodologies and standards of interpretation, and they ultimately depend upon the personal views and opinions of a specific individual at a specific time.

This makes these documents relatively easy for ‘end users’ to read and reference as ‘supportive examples’ or ‘parallel cases’ without having to give too much thought or consideration to the reliability of the archaeological information they are using, but it also

makes it very difficult to deconstruct each of these individual documents and check the accuracy of the archaeological information they contain or work out how that archaeological information has been established, and it also makes it very difficult to extract consistent and comparable archaeological information from a number of different documents and then use that archaeological information to produce integrated higher level interpretations. The point may therefore have been reached where it is necessary to adopt a more critical and less trusting approach to these archaeological reports and Archaeological Publications based upon a clear understanding of how they were actually produced.

EXISTING ARCHAEOLOGICAL PUBLICATIONS

The standard and the reliability of an existing Archaeological Publication would have depended to a very large extent upon the general circumstances under which the original archaeological project had been completed, that is the time and the money available, and those circumstances would have changed both over time and between individual projects. Those general circumstances would then have affected both the complexity and quality of the resulting Site Archive and the funds available for the completion of the post-excavation project, and those would affect both the level of checking needed during the early stages of the post-excavation project and the amount of time available to do that checking. This would then effect the final state of the Site Archive, and whether it was possible to consider it as either an ordered, indexed and internally consistent set of precise 'archaeological records' that had to be accounted for and explained, or as basic 'field notes' which were always full of errors and inconsistencies and which could therefore be either changed or ignored if they did not fit in with a particular interpretation. Finally, this would affect the methodology used to produce a possible interpretation of the stratigraphic evidence, which would at some point have changed from a 'bottom up' approach that 'constructed' an archaeological interpretation from the Site Archive, to a 'top down' approach that 'imposed' an archaeological interpretation upon the Site Archive.

(These changes in attitude and approach can usually be identified from the stratigraphic sequence recorded and presented on Stratigraphic Matrix, as a fragmented Stratigraphic Matrix or the absence of any form of Stratigraphic Matrix would tend to indicate that a 'top down' approach to archaeological interpretation had been used.)

The number, size and quality of the Specialist Finds Reports would also have changed over time, with first a gradual increase in the size and complexity of Specialist Finds Reports until the introduction of Specialist Finds Assessment Reports, and then an increase in the number and variety of Specialist Finds Assessment Reports until growing commercial pressure caused a decline in all but the most necessary forms of specialist finds analysis.

(The quality and reliability of the archaeological information contained within these various finds reports would depend entirely upon the individual Finds Specialists who completed them as the original finds are rarely re-checked or re-examined by other Finds Specialists, and so these Specialist Finds Reports and Specialist Finds Assessment Reports also depended upon the personal views and opinions of a specific individual at a specific time.)

The archaeological information contained within the Specialist Finds Reports and Specialist Finds Assessment Reports would then have been integrated into the interpretation of the stratigraphic evidence, and some attempt at establishing possible dates of deposition would have been made. Again, the methodology used for dating archaeological deposits would have varied depending upon both the methodology used to produce the stratigraphic interpretation and the amount of time available.

If a 'bottom up' approach had been used to produce the stratigraphic interpretation then a Stratigraphic Matrix would have been completed, and it would then have been possible to continue using a 'bottom up' approach to carefully 'construct' the archaeological dating. This would have involved reassembling individual Stratigraphic Assemblages and establishing possible 'spot dates' for individual Stratigraphic Units, that is possible dates of deposition based upon the dates of manufacture provided by the finds reports. These 'spot dates' would then be placed within the stratigraphic sequence on the Stratigraphic Matrix, and would then be reviewed, compared and adjusted in an attempt to identify and lessen the effects of possible intrusive or residual contamination and so produce more accurate possible dates of deposition for specific Stratigraphic Units. Any errors or anomalies in the 'spot dating' would then be smoothed out by combining possible dates of deposition to produce possible dates for individual Phase Groups or Groups on a Phase

Matrix, and an element of 'controlled uncertainty' would be introduced by placing this dated Phase Matrix within a local date framework consisting of a number of consecutive Historic Periods. This entire process was intended to prevent over precise and possibly inaccurate archaeological dating, as well as providing a means for clearly identifying roughly contemporary archaeological evidence within the limits of the stratigraphic sequence.

However, if a 'top down' approach had already been used to produce the stratigraphic interpretation then the Stratigraphic Matrix would be fragmented or missing, and it would then have been necessary to use various types of 'top down' interpretation to produce some form of archaeological dating. This would have involved either producing a bracketed set of possible dates of deposition for individual Phase Groups or Groups directly from the dates of manufacture provided by the finds reports, or placing individual Phase Groups or Groups in the desired Historic Period and then looking for evidence to support that interpretation while dismissing any contradictory evidence as residual or intrusive contamination, or simply extracting specific information from the finds reports and then using that information to support or illustrate a particular interpretation, while ignoring any contradictory evidence. So instead of using the archaeological dating to limit and shape a particular interpretation, the 'top down' approach to archaeological dating would change or alter possible dates of deposition to justify and then support a particular interpretation, and in some cases no distinction may have been made between dating that was based upon some form of supportive evidence and dating that was simply made up.

(Unfortunately, without a full explanation of the methodology and a full description of all the archaeological evidence it is impossible to tell how any particular archaeological deposits had been dated, and all archaeological dating then has to be accepted on trust.)

Once a dated interpretation of the stratigraphic evidence had been completed it would then have been possible to undertake the final part of the interpretation and produce a Synthesis Report that would describe and explain the entire interpretation. Initially this Synthesis Report would have avoided speculation and remained very close to the archaeological documentation contained within the Site Archive, however, the increase in the number and complexity of archaeological projects in the 1970's and 1980's also led to an increase in the size and therefore the cost of Archaeological Publications, and the early policy

documents attempted to address this particular problem by producing an additional summary which raised the level of interpretation presented within the Synthesis Report, and then preserving the rest of the archaeological information within an ordered, indexed and internally consistent Site Archive and a separate Research Archive which would contain the full interpretation. Although this did maintain the relative size of Archaeological Publications it also added to the size and complexity and therefore the cost of post-excavation projects, and it also created a form of ‘interpretation inflation’ which regulated the size of the Synthesis Report by increasingly summarising the detail, and this stretched out the post-excavation process to the point where the Synthesis Report could be separated or detached from the archaeological documentation contained within the Site Archive. So instead of going through the various consecutive stages of the post-excavation process to construct a ‘bottom up’ interpretation it then became perfectly possible to completely reverse the interpretation process and produce a ‘top down’ interpretation which simply presented an interpretation, and it then became perfectly possible to produce both a Synthesis Report and an Archaeological Publication without having to justify every interpretation by direct reference back to the original archaeological documentation. The introduction of developer funding and competitive tendering in the early 1990’s then led to growing commercial pressure and an increasing need to make time and money saving short cuts during both excavation and post-excavation projects, and this along with the gradual reduction of archaeological records to the level of basic ‘field notes’ eventually led to the general adoption of a ‘top down’ approach to archaeological interpretation within some commercial archaeological organisation. So the increasing level of interpretation made it *possible* to adopt a ‘top down’ approach to archaeological interpretation, and the growing commercial pressure then made it *necessary* to adopt a ‘top down’ approach to archaeological interpretation. (It should be relatively easy to identifying the level of interpretation being presented within the Synthesis Report from the type of information being described (see figure 3). However, it is far more difficult to identify the precise methodology used to establish that information as both a ‘bottom up’ approach and a ‘top down’ approach may produce similar looking higher level Synthesis Reports, even though the quality and reliability of the information they contain is likely to be very different.)

All of these various reports would then have been used to compile an Archaeological Report, which may or may not have then been submitted for possible publication. Initially these Archaeological Reports would have been submitted for publication as a matter routine, however, the general increase in the size and complexity of post-excavation projects in the 1980's also led to an increase in and the amount of time needed to complete them and therefore the cost, and the later policy documents attempted to address this particular problem by improving project management and reducing the overall size of post-excavation projects by increasing selectivity, not only during excavated and analysed, but also about which archaeological projects would proceed to full publication. This selectivity had originally been intended to have been based purely upon the academic significance of the archaeological evidence uncovered and the need to make the most effective use of the available grant funding, however, the introduction of developer funding and competitive tendering in the early 1990's then led to growing commercial pressure and the need to work within specific project funding, so the criteria upon which selective decisions were made gradually changed, and a system which had originally been designed to justify additional grant funding upon academic grounds gradually became a system that could be used to cut costs to a bare minimum upon commercial grounds. The type of Archaeological Reports submitted for possible publication therefore changed, and depended, not upon the academic significance of the results, but upon individual circumstances and individual project funding, so only a few large well-funded or particularly prestigious archaeological projects would proceed to full Archaeological Publication, and all other archaeological projects would produce either a published Synthesis Report, an unpublished 'grey literature' report, or an incomplete and abandoned post-excavation project.

Those Archaeological Reports that were submitted for possible publication would then have gone through the standard academic publication process. This process would have started with a 'peer review' by two or more anonymous referees who were acknowledged experts in the particular field or subject, however, the gradual increase in the level of interpretation would have made it more difficult to establish the precise methodology used and to evaluate the resulting information, so the 'peer review' of higher level Archaeological Reports may have been based, not upon 'accuracy' or 'validity', but upon the 'acceptability' of the final results, and any underlying problems with either the methodology or specific interpretations, particularly the dating of individual deposits or

structures, may not have been identified. So even though the academic publication system may have been seen as a guarantee of standards and accuracy, and the final Archaeological Publications may appear similar, especially if published as part of a series, each publication would still have been an individual document of variable quality and reliability.

(As a basic rule, the higher the level of interpretation contained within the final Archaeological Publication the easier it is to read and reference, but the more difficult it is to deconstruct and check that information, and the more difficult it is to extract consistent and comparable information.)

Over recent years there has also been a growing tendency to publish Synthesis Reports as articles in local or regional archaeological journals instead of producing full Archaeological Publications. These published Synthesis Reports were intended to be an integrated form of ‘synthetic narrative history’ which would combine description and interpretation, along with assemblage evidence and dating evidence to produce a higher level interpretation and a seamless interpretative ‘site narrative’. They are therefore likely to have been produced using a ‘top down’ approach to archaeological interpretation, and would have used both the original archaeological records and the Specialist Finds Assessment Reports as basic ‘field notes’ that could be consulted and then referenced to provide additional detail and to support particular interpretations. This type of Synthesis Report may therefore have become a form of ‘archaeological narrative’ which would have depend primarily upon the personal views and opinions of a specific individual at a specific time and their ability to write and tell a good story. As these Synthesis Reports were also intended to appeal to a wider general readership their form and content would also have been defined and controlled to a large extent by the journal editors, so the amount of detail they contained would have been dictated not by the complexity of the archaeological evidence but by the word length set by the journal editor, and though they would have received some form of ‘peer review’ that may have been based not upon the ‘accuracy’ or ‘validity’ the archaeological information they contain but upon their suitability for publication.(This form of published Synthesis Report is therefore very easy to read and reference, which was the original intention, however, as they are an integrated form of ‘synthetic narrative history’ it is also very difficult to deconstruct the entire ‘site narrative’ to establish how specific archaeological interpretations have been produced, and

to distinguish between possible or probable interpretations of the archaeological evidence and information that was merely conjecture. It is therefore very difficult to *actually use* this type of published Synthesis Report to provide specific archaeological information, and any further research and analysis would involve referring back to the original Site Archive.)

GREY LITERATURE REPORTS

Over recent years there has also been a steady increase in the number of unpublished ‘grey literature’ reports which would have been produced either towards the end of a post-excavation project which had never reached full publication, or as limited distribution documents specifically intended to fulfil a minimum contractual, legal or social requirement and so complete a post-excavation project and close a project account. These unpublished ‘grey literature’ reports would therefore have been higher level documents, such as Synthesis Reports, Archaeological Reports which should, in theory, have been definitive documents produced to publication standard even though they would not have gone through all the checks and controls associated with the standard academic publication process, and may have also included other project documents or ‘analytical reports’ such as Specialist Finds Reports. The methodology used to produce these documents would therefore have varied, however, if they had been completed primarily for commercial reasons they are likely to have been produced using a ‘top down’ approach to archaeological interpretation, and would have used both the original archaeological records and the Specialist Finds Assessment Reports as basic ‘field notes’. These unpublished ‘grey literature’ reports would therefore have been individual documents of variable quality and reliability, each of which would have depend primarily upon the specific circumstances in which they were completed and the personal views and opinions of a specific individual at a specific time, and they should therefore be treated as unverified and potentially unreliable archaeological information until they have been checked against the original Site Archive.

(The quickest and easiest way to check and evaluate a ‘grey literature’ report is to examine the Stratigraphic Matrix and then select a number of key sequential relationships and see if these can be proved by direct reference to the Plans and Sections, if they can then a ‘bottom up’ approach based upon the original Site Archive has probably been used, however, if they cannot or if the Plans and Sections appear to have been *changed* to

conform to the Stratigraphic Matrix then some form of ‘top down’ approach has probably been used. Having checked the sequential relationships on the Stratigraphic Matrix it should then be relatively easy to read the ‘grey literature’ report while referring back to the Stratigraphic Matrix as a basic guide. The dating methodology should also indicate if a ‘bottom up’ approach or a ‘top down’ approach to archaeological interpretation has been used.)

From a limited re-examination of various ‘grey literature’ reports undertaken over recent years as part of normal archaeological work, many appear to be fine when viewed in isolation, but when viewed with neighbouring excavations inconsistencies soon become apparent. Then when the Site Archives are checked it becomes evident that many ‘grey literature’ reports are over interpreted, and that the interpretation they present is not supported by the archaeological records.

On occasions this seems due to a lack of time on site, and so the archaeologists could not complete the records, but when questioned they genuinely thought the things they have included in the report.

(For one reason or another these excavations have turned into watching briefs, and the resulting interpretations are usually supported by some form of photographic evidence.)

On occasions this seems due to unsupported over interpretation, and what may have been only a possible interpretation is presented as an established and indisputable fact.

(These reports do not contain any form of probable/possible qualification, or any indication of doubt or uncertainty, so it could be said that these reports have been ‘hyped up’ by selective presentation.)

On other occasions the ‘grey literature’ reports are well-presented and may appear to have been done to a high standard, but are actually intended to cover up problems within the Site Archive, particularly inadequate, inaccurate and inconsistent and therefore contradictory archaeological records. This poor documentation is then compensated for by a well-presented interpretation which conforms to expectations, and which is therefore unlikely to be questioned.

(These reports have been ‘manufactured’ and usually contain a lot of ‘cut and paste’ from earlier documents, previous excavations and finds reports.)

There also seems to be a growing tendency to see all archaeological documentation as commercially sensitive confidential information and either as a potential money earner or something to keep quiet about, and this may explain an obvious reluctance on the part of some commercial archaeological organisations to make these ‘grey literature’ reports, along with the original archaeological documentation, more widely available. In these circumstances any criticism of existing reports or publications may then be met with implied threats of litigation, as this is seen not as legitimate academic criticism, but as an attack upon the professional reputation of a commercial organisation.

INCOMPLETE AND ABANDONED POST-EXCAVATION PROJECTS

Ever since the start of the ‘publication backlog’ there has also been a growing number of incomplete and abandoned post-excavation projects, each of which may have produced a number of archaeological reports as part of the unfinished interpretation process. These reports would have been lower level internal working documents, such as Interim Reports, Summary Reports or Assessment Reports, as well as other project documents, such as Specialist Finds Assessment Reports, and other management documents, such as the various Project Designs. Unfortunately, these abandoned post-excavation projects may have dragged on for years, stopping and starting several times in the process, so the existing reports and their accompanying documentation may have been produced by different individuals at various times for various reasons and possibly using different methodologies, and they may even exist in multiple differing versions. These reports would therefore have been individual documents of variable quality and reliability, and even though they may contain accurate and useful archaeological information, they should be treated as unverified and potentially unreliable documents until they have been checked against the original Site Archive.

(As there will always be difficulties in establishing the quality and reliability of these documents it is probably quicker and easier to start by first checking the Site Archive and the Stratigraphic Matrix before using a ‘bottom up’ approach to check and evaluate the rest of the existing reports in sequence.)

APPENDIX 2

LAWS AND POLICY DOCUMENTS

‘The past is a foreign country: they do things differently there.’

(L.P. Hartley, *THE GO-BETWEEN*)

THE FRERE REPORT

Frere, S. *et al.* (1975) *Principles of Publication in Rescue Archaeology*. London: The Ancient Monuments Board (England) and the Department of the Environment.

The Frere Report fully supported the traditional academic approach to archaeological publication, and defined the purpose of archaeological publication as:

- 1 The dissemination of knowledge to other archaeologists.
- 2 The preservation of knowledge for future generations.
- 3 The popularisation of the results of archaeological fieldwork to strengthen public support.
- 4 A means of enable archaeologists to fulfil their academic obligations and improve their professional standing (academic credit).

However, it also clearly stated that the publication in printed form of *all* the details of a large excavation was no longer practicable (Frere 1975: section 2.1), and then attempted to reorganise the process of publication by describing what were referred to as ‘four levels of recording’, but which became widely known as the four levels of Archaeological Archive.

These were:

- LEVEL IV A descriptive synthesis with supporting data and illustrations.
 (A Synthesis Report)
 Selected finds and specialist reports relevant to the synthesis.
 (Specialist Finds Reports)
 (This eventually became the Publication Archive.)
- LEVEL III Full description of all structural and stratigraphic relationships.
 (An Interim Report)
 Classified finds lists and finds drawings and all analysis.
 (Finds Catalogues)
 (This eventually became the Research Archive.)
- LEVEL II All the archaeological records produced on-site such as Site Notebooks,
 All Context Sheets, Plans, Sections, and photographs.
 Finds records and other documentation.
 (This eventually became the Site Archive.)
- LEVEL I The site itself and general notes, old letters, previous accounts etc.
 Excavated finds.

(adapted from (Barker 1982: 229 - 230))

The Frere Report then stated that ‘refined’ publication at (LEVEL IV) should become the objective, provided that both the (LEVEL II) Site Archive and the (LEVEL III) Research Archive were properly organised, curated and completed to a high standard, and were also readily available upon request, preferably in duplicate form (Frere 1975: section 2.6). The final publication, a (LEVEL IV) Synthesis Report, should therefore contain ‘a full presentation of the history and significance of the site together with full documentation and evidence for all statements made’ (Frere 1975: section 2.9), and for large archaeological projects consideration should also be given to the publication of a (LEVEL III) Interim Report (Frere 1975: section 2.10).

THE CUNLIFFE REPORT

Cunliffe, B. *et al.* (1983) *The Publication of Archaeological Excavations*. York: Council for British Archaeology and the Department of the Environment.

Unlike the Frere Report, the Cunliffe Report focused directly upon the cost of post-excavation projects and the growth of the publication backlog, and started by defining what it saw as the nature of the problem. This included the growing number, size and complexity of archaeological projects, and the increase in the amount and quality of the archaeological material and archaeological documentation being produced (Cunliffe 1983: section 1.1 and section 1.2). The report then went on to highlight the amount of work required to produce both an ordered, indexed and internally consistent Site Archive and an Archaeological Publication, and how the resulting cost of post-excavation projects had ‘severely limited the nation’s ability to initiate and fund fresh projects’ (Cunliffe 1983: section 1.3).

The Cunliffe Report then stated that the reasons for the growth of the publication backlog and the failure of a number of projects to reach publication had been:

- 1 Failure on the part of excavators so to organise the recording of data in the field as to permit rapid and effective interpretation and synthesis once the excavation is completed.
- 2 A tendency to undertake detailed analysis and research over and above the basic requirement of presenting the evidence and interpreting the site within its immediate context.

However, the report then went on to point out that the solution to these problems was a combination of archaeological archives and a Synthesis Report, along with the simplification and streamlining of the archaeological process and a more rigorous selection process (Cunliffe 1983: section 1.4). In an attempt to improve overall project management the Cunliffe Report outlined a basic excavation and post-excavation

procedure, along with three stages of critical review and a number of specific recommendations.

This procedure stated that an Excavation Research Design should be completed before the archaeological project started to establish clear research priorities and focus excavation upon predefined areas of interest and ‘reasonably attainable limits of information retrieval’ (Cunliffe 1983: section 2.2). This placed more emphasis upon selectivity and the use of excavation sampling procedures, including carefully consideration of both which areas were to be excavated, and on deeply stratified sites which deposits were to be given priority, ‘a balance should be struck between what is excavated and what can adequately be archived’ (Cunliffe 1983: section 2.4). The standard of on-site recording should also be improved and maintained ‘in order to eliminate the time and energy that might otherwise be needed to correct, rewrite, and interpret site records at the post-excavation stage’ (Cunliffe 1983: section 2.3), and experienced specialist staff should be employed to aid in this task.

The importance of preparing and preserving an ordered, indexed and internally consistent Site Archive was also stressed, as well as its ready availability, as this Site Archive would form the basis for all future post-excavation research. This repeated the basic principle of ‘preservation by record’ established in the Frere Report.

The Cunliffe Report then went on to redefine post-excavation research into three broad categories:

Processing and Primary Research, which consisted of the preparation and preservation of archaeological archives, as well as the preparation of a Synthesis Report for publication. (This was to be grant funded by the Department of the Environment, which then passed the responsibility onto the newly formed English Heritage in May 1983, and CADW in Wales in 1984, (Historic Scotland was established in 1991).)

Secondary Research, which consisted of the analysis of classes of data well represented on the site, but which are not essential to the direct description of the site. (This was to form the subject of longer-term research projects, and was to be separately funded.)

Ancillary Research, detailed analyses and comparative studies facilitated, or directly inspired, by new data from the site, but which are also not essential to the interpretation of the site. (This was also to form the subject of longer-term research projects, and was to be separately funded.)

The Cunliffe Report then recommended that after the preparation and preservation of the Site Archive a Post-Excavation Research Design should be completed which would clearly distinguish between the research needed to produce an Archaeological Publication (Primary Research), and wider research which was not essential to the direct description and interpretation of the site (Secondary Research and Ancillary Research). This effectively focused post-excavation research upon the minimum necessary to produce an Archaeological Publication, as well as providing a mechanism by which archaeological units could establish and maintain specific research priorities.

Once the likely outcome of the post-excavation research had become apparent a Proposal for Publication should also be completed, which would then be used to justify proceeding to full publication (Cunliffe 1983: section 4.3). If full publication was not justified then an unpublished Summary Report would be produced, which would have been roughly the equivalent of an earlier (LEVEL III ½) Interim Reports. This reduced publication costs by ensuring that only the largest or most significant archaeological projects proceeded to full publication, and this was considered acceptable as all of the detailed information was still

available within the Site Archive. If full publication was justified then a synthesis would be produced, and this would form the basis for the final Archaeological Publication.

The Cunliffe Report then went on to divide all archaeological documentation into two basic categories, Primary Records which formed the Site Archive, and Processed Records which were all the archaeological records that were produced during the interpretation of the Site Archive, and which formed 'a body of interrelated research' (Cunliffe 1983: section 4.10) and the Research Archive. Both the Site Archive and the Research Archive should be carefully prepared and preserved, and should also be recorded on microfiche with copies deposited in several different locations.

The final Archaeological Publication would then be split into two separate parts:

A printed synthesis or 'report digest' which would also contain consideration of 'the social, economic, and political processes indicated by the archaeological record' (Cunliffe 1983: section 4.11). (This would be the Summary, Introduction and Interpretation Section in a conventional Archaeological Publication.)

The more detailed descriptions of the structural, artefactual and environmental evidence derived from the Research Archive, which would be available on microfiche (Cunliffe 1983: section 4.12). (This would be the Description Section and the Specialist Finds Reports in a conventional Archaeological Publication.)

This would in effect halve both the size of the Archaeological Publication and the publication costs.

The Cunliffe Report also indicated that control over the publication backlog could be imposed by withholding grant funding from persistent long-term offenders, defined as those who had two or more archaeological projects which still remained unpublished four years after completion (Cunliffe 1983: section 4.4).

PPG16

Department of the Environment (1990) *Planning Policy Guidance 16: Archaeology and Planning*. London: Department of the Environment.

PPG16 consists of two parts and five additional appendixes. The first part entitled 'The Importance of Archaeology' starts by fully recognising the importance of archaeological remains, and places archaeological considerations firmly within the early stages of the local authority planning process (PPG16 1990: paragraphs 1 and 14). It then tries to strike a balance between the interests of developers and the interests of archaeologists by outlining a number of graded responses depending upon the significance of the archaeological remains, these ranged from scheduling, through various degrees of 'preservation *in situ*', to various levels of 'preservation by record' which would include everything from full open area excavation down to a watching brief. For nationally important archaeological remains there should be a presumption in favour of preservation, however, for less significant remains the local planning authorities should make a decision by weighing the relative importance of the archaeological remains against the need for the proposed development (PPG16 1990: paragraph 8) with most emphasis placed upon 'preservation *in situ*' whenever possible (PPG16 1990: paragraphs 12 and 13), again to avoid the situation which occurred on the Rose Theatre excavation.

The second part of PPG16 goes on to give general and occasionally vague 'Advice on the Handling of Archaeological Matters in the Planning Process'. This starts by including archaeological remains within local authority development plans and pointing out that not all nationally or locally important archaeological remains may already be scheduled (PPG16 1990: paragraphs 15 and 16). It then highlights the importance of the Sites and Monuments Records (SMR) which should be organised on the county level by the local County Council with the assistance of the County Archaeologist (PPG16 1990: paragraph 17). It then goes on to point out that local planning authorities may withdraw 'permitted development rights' from a known (and presumably scheduled) 'ancient monuments and its setting', and that specific planning permission then has to be sought from the Secretary of State (PPG16 1990: paragraph 18).

The next sections of PPG16 starts by encouraging prospective developers to consult the local Sites and Monuments Record (currently referred to as the Historic Environment Record or HER) at an early stage of their own research into the development potential of a specific area, and possibly commission a Desk-Top or Desk Based Assessment Report from a professionally qualified archaeological organisation or consultant (presumably IFA membership) (PPG16 1990: paragraphs 19 and 20). If the results of the Desk-Top Assessment Report indicated that important archaeological remains exist then 'it is reasonable' for the local planning authority (and its local Archaeological Monitors) to request an archaeological Evaluation Report to establish the character and extent of archaeological remains within the area prior to a planning application. This work is described as 'a rapid and inexpensive operation, involving ground survey and small-scale trial trenching' which should be carried out by a professionally qualified archaeological organisation or archaeologist (again presumably IFA membership), and the local planning authority may ask for an Evaluation Report if a planning application is made without consideration of any archaeological remains (PPG16 1990: paragraphs 21, 22 and 23).

The most significant section of the document comes in the next three sections, entitled 'Arrangements for Preservation by Recording including Funding'. This starts by reiterating archaeological excavation and 'preservation by record' may be an acceptable alternative, if 'preservation *in situ*' is not feasible. It then goes on to state that planning permission is not subject to developers agreeing to fund excavations, and that developers should not obtain planning permission for agreeing to fund the excavation of archaeological remains which should be 'preserved *in situ*'. If the local planning authority considers that archaeological remains are not important enough to preserve *in situ* or if it is not feasible to preserve *in situ* then it would be 'entirely reasonable' for the planning authority to ensure that the developer has made 'appropriate and satisfactory provision for the excavation and recording of the remains' and the publication of the results before granting planning permission, and if such provisions are not made or are not acceptable then the planning authority may impose a planning constraint (PPG16 1990: paragraph 25). Finally, this section advises that all such 'appropriate and satisfactory provision' should be by voluntary agreement between all parties (PPG16 1990: paragraph 26).

The next sections deal with the granting of planning permission. This restates what has gone before, however, it does add that the refusal of planning permission on archaeological grounds should be considered as a last resort, and that an archaeological watching brief may be imposed as a planning constraint, though there is no provision for stopping the development. So there is a general presumption in favour of granting planning permission, and archaeological considerations are based solely upon a voluntary agreement that ‘appropriate and satisfactory provision’ has been made.

The final section of PPG16 deals with unexpected discoveries during development. This states that any archaeological remains discovered during development may be ‘preserved *in situ*’ if they are considered important (PPG16 1990: paragraph 31). This may be possible if the archaeological remains are found during excavation, however, if they are found after any archaeological work has been completed then there would be no time to go through the procedure before the developer has removed the remains, as again there is no provision for stopping the development.

The appendix lists key bodies and organisations, contact addresses for City or County Archaeological Officers and the Sites and Monuments Record (now the Historic Environment Record or HER), legislative arrangements, secretary of state criteria for scheduling ancient monuments and finally statutory instruments for ancient monuments.

MAP2

English Heritage (1991) *Management of Archaeological Projects*. (2nd edition)
London: English Heritage and the Historic Buildings and Monuments Commission
(England).

MAP2 was specifically intended to improve archaeological project management, and also provide English Heritage, as the main provider of grant funding, with a mechanism to ensure:

- 1 That archaeological projects were properly planned, documented and effectively managed.
- 2 That archaeological projects were undertaken in line with local, regional and national research priorities, usually contained within some form of Regional Research Design.
- 3 That the archaeological information produced was subject to regular critical review and evaluation against an overall Project Design.
- 4 That the results of archaeological projects meet academic standards, and were promptly and appropriately disseminated.

To achieve this MAP2 presented a set of very detailed guidelines which outlined a general management structure for planning, organising and monitoring medium to large scale grant funded archaeological projects, based upon the assumption that an initial decision to start the archaeological project had already been taken. This project management structure consisted of five consecutive Phases:

- Phase 1: **Project Planning**
- Phase 2: **Fieldwork**
- Phase 3: **Assessment of Potential for Analysis**
- Phase 4: **Analysis and Report Preparation**
- Phase 5: **Dissemination**

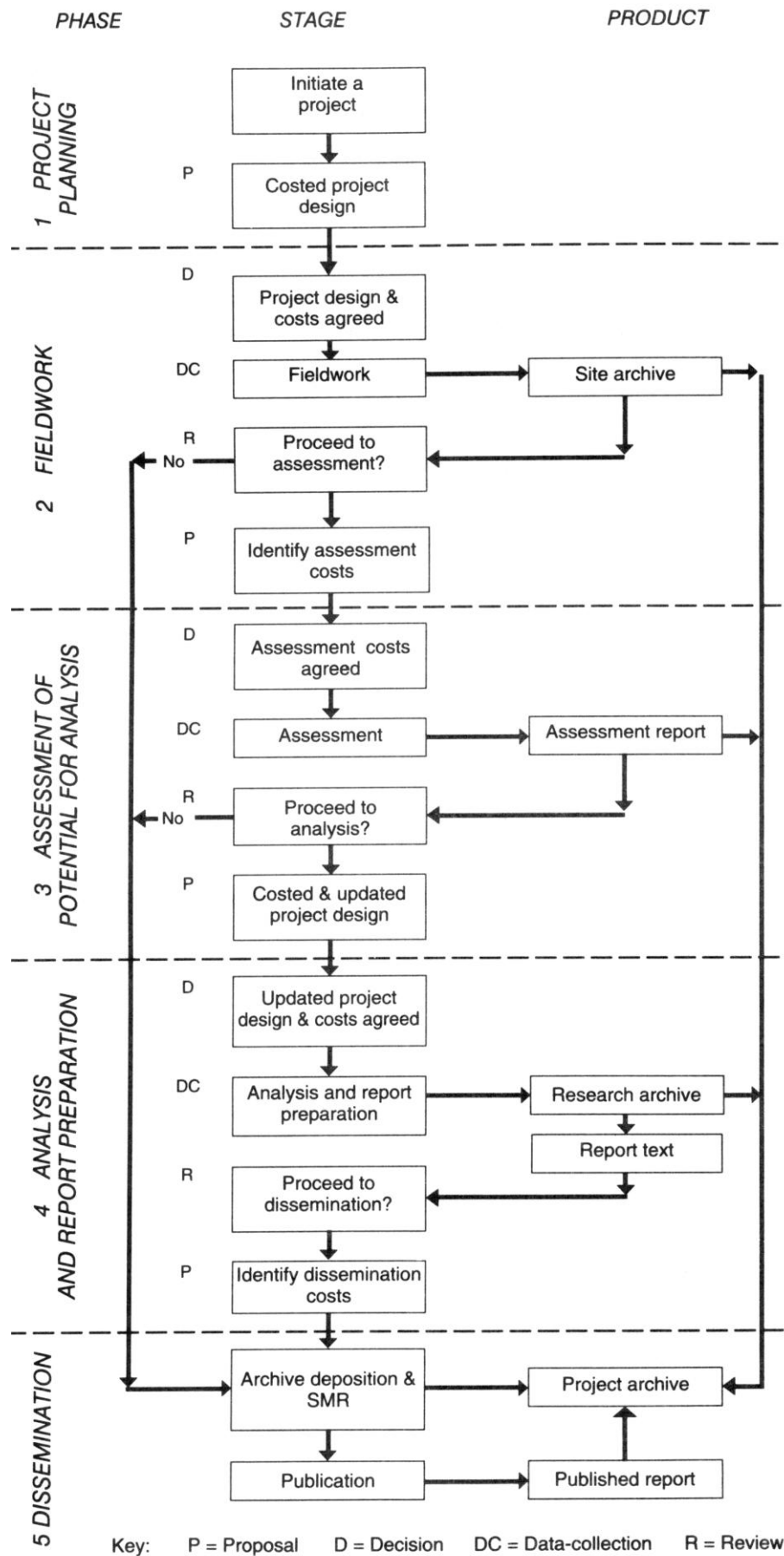


Figure 6: MAP2 project management structure. (MAP2 1991: figure 1)

Each individual Phase then involved the completion of four consecutive Stages:

1 **Decision:** At the start of each Phase the objectives and recommendations contained within the management document completed at the end of the previous Phase would be carefully considered by all the relevant parties involved in the archaeological project, including the project sponsors (usually English Heritage), and an agreement would be reached upon the most appropriate way of planning, organising and monitoring further data collection.

2 **Data Collection:** Once a budget had been set and agreed, and appropriate resources had been made available then data collection could start. This would involve either direct data gathering in the field or the further analysis of existing archaeological information, and would result in the production of some form of project documentation depending upon the current Phase. The project documents produced during each Phase represented the results of the archaeological project and were:

Phase 1: An Evaluation Report

Phase 2: A Site Archive

Phase 3: An Assessment Report

Phase 4: A Research Archive and an Archaeological Report

Phase 5: An Archaeological Publication and a Project Archive (or Publication Archive)

3 **Review:** The results of data collection would then be analysed and critically reviewed to assess their full significance in line with local, regional and national research priorities, and a decision would be made upon whether to proceed to the next Phase. If a decision was taken not to proceed then the archaeological project came to a halt at this point and all existing project documentation would be archived, however, if a decision was taken to proceed with further data collection then a new or updated proposal would be prepared.

4 **Proposal:** The results of the previous review would then contribute to the completion of some form of management document which would justifying the funding of further data collection and outline future planning. This management document would present clearly defined and justified objectives which reflected both practical considerations and the academic research priorities presented in the Regional Research Design, and would include planning, organising and monitoring recommendations, as well as realistic estimates of the time, staff and material resources needed, and an accurate estimate of the overall cost. The management documents produced at the end of each Phase were:

Phase 1: A costed Project Design.

(This would have been roughly similar to an earlier Excavation Research Design)

Phase 2: A costed programme of initial processing and analysis.

Phase 3: A costed updated Project Design.

(This would have been roughly similar to an earlier Post-Excavation Research Design)

Phase 4: A costed programme for the completion of the final Archaeological Publication.

(This would have been roughly similar to an earlier Proposal for Publication)

These management documents would then have formed the basis of the decision making Stage at the start of the next Phase.

This produced a 'document driven' project management structure, in which the completion of project documentation would shape the next management document, and that management document would then control the collection or completion of further project documentation, and so on until the eventually completion of the final Archaeological Publication.

MAP2 therefore introduced two major changes to the archaeological process.

The most obvious of these was the introduction of a separate Assessment Phase, in which the significance or relevance of archaeological information was 'assessed' before proceeding to full analysis (MAP2 1991: 15 - 19). This was intended to produce a more rigorous selection process, so instead of doing either full analysis or no analysis, the Assessment Phase involved doing partial analysis upon everything and then full analysis upon specific things. This partial analysis involved processing and cataloguing all of the available archaeological information recovered from the site to produce an ordered, indexed and internally consistent Site Archive (MAP2 1991: 30 - 31), and then proceeding with sufficient analysis to identify the potential of this material to contribute to the interpretation and the final Archaeological Publication. Although MAP2 did not precisely define this point it did state that residual and intrusive contamination should be identified (MAP2 1991: 17), so this would have involved the completion of the Stratigraphic Matrix (which was defined as part of the Site Archive (MAP2 1991: 30 - 31)) and a possible interpretation of the stratigraphic evidence, as well as the basic identification and dating of at least some of the assemblage evidence, and then the integration of this stratigraphic and assemblage evidence to produce possible dates of deposition for individual deposits. Having carried out this partial analysis it would then, in theory, be possible to distinguish between:

- 1 Material which was essential to the interpretation of the site and which could directly contribute to the final Archaeological Publication. (Primary Research)
- 2 Material which was of intrinsic archaeological importance, which may be published elsewhere. (Secondary Research)
- 3 Material which was of no present significance, and which would be excluded from any further analysis. (Ancillary Research)

The results of the partial analysis would then be presented within an Assessment Report (MAP2 1991: 32 - 33) which was intended to be a factual summary of the quantity, quality, range and condition of the various categories of archaeological information contained within the Site Archive, as well as an accompanying statement of the potential

of this archaeological information to contribute to both the interpretation of the site and the final Archaeological Publication. An Assessment Report was therefore a project document, which presented both basic factual information and specific recommendations for further data collection and analysis, and so was intended to contain all of the information necessary to shape and clearly define the rest of the post-excavation project.

The second major change was the introduction of increasingly more complex management documents, which were used to both direct and control archaeological projects, but which did not directly contribute to the final Archaeological Publication.

The most wide ranging of these management/research documents were the Regional Research Designs which contained the current local, regional and national research priorities. These documents were referenced within individual Project Designs to provide academic justification for all forms of archaeological research, and were usually written by the City or County Archaeologist, the local Archaeological Monitors or a Senior Manager from the local archaeological unit following local discussions between all interested parties, including additional contributions from English Heritage. (These documents eventually became a series of Regional Research Frameworks which were updated and refined at regular intervals, and are currently referred to as the Historic Environment Research Frameworks (<http://www.english-heritage.org.uk/professional/research/strategies/research-frameworks/> (accessed 2014).)

The other main management documents were the various Project Designs which were produced during the course of individual archaeological projects, and which contained detailed and costed proposals for further data collection and analysis (MAP2 1991: 27 - 29 and 34 - 36). These documents were intended to define the aims and objectives of the future research, the quantity and quality of material to be investigated, and the proposed means or methods of investigation, all in line with the academic research priorities contained within the Regional Research Design. These documents would then be used as the basis for discussions between all the relevant parties involved in the archaeological project, including the project sponsors (usually English Heritage), and eventually an agreement would be reached upon the most appropriate way of planning, organising and monitoring further data collection and analysis.

All of these management documents therefore permitted English Heritage as the main project sponsors to both influence wider archaeological research through the Regional Research Designs, and directly monitor and control individual archaeological project through the various Project Designs, thus ensuring the most effective use of their grant funding.

MAP2 concluded with seven appendices which provided basic project management techniques, as well as detailed specifications and descriptions of the form and content of the main project documents and archaeological archives, including the Project Designs, the Site Archive, the Assessment Report, the Research Archive, and the final Archaeological Publication. These detailed descriptions indicated that the final Research Archive should contain all of the documentation produced during the interpretation, as well as what were described as the 'analytical reports' which should relate back to the original records held in the Site Archive (MAP2 1991: 37 - 38). These included an interpretative 'site narrative', which would have been roughly the equivalent of an earlier Synthesis Report, as well as all the Specialist Finds Reports, so the detailed archaeological interpretations were intended to be contained within these 'analytical reports' in the Research Archive. The main part of the final Archaeological Publication was then intended to be a summary of these 'analytical reports' (MAP2 1991: 39 - 41), thus allowing the size and cost of publication to vary depending not upon the complexity of the archaeological site, but upon the amount of detail contained within the summary.

All of MAP2 was therefore underpinned by the concept of 'preservation by record', and the ready availability of both an ordered, indexed and internally consistent Site Archive, including the Stratigraphic Matrix (MAP2 1991: 30 - 31), and an ordered, indexed and internally consistent Research Archive, including all of the 'analytical reports' (MAP2 1991: 37 - 38). If these archaeological archives were not completed and were not readily available then the final Archaeological Publication could not be checked and would therefore have to be accepted on trust.

THE PUNS REPORT

Jones, S. *et al.* (2001) *From the Ground Up: The Publication of Archaeological Projects: A User Needs Survey*. York: Council for British Archaeology.

The PUNS Report had been commissioned ‘partly in reaction to a perceived under-use of archaeological project publications and archives, and partly because of uncertainty about what archaeologists and lay readers wished to derive from them’ (Jones 2001: section 1.1), and given that it had been produced in the same building as Archaeological Data Service (ADS) and that some of the same people were involved in both projects, it may also have been intended to provide evidence to support the long-term funding of online publishing and dissemination. So the PUNS Report aimed to approach the problem of archaeological reports and publications from the opposite direction and to ‘ascertain, analyse, and report on the archaeological community’s use and expectations of fieldwork publications’ (Jones 2001: section 1.2), including both standard Archaeological Publications and all forms of archaeological ‘grey literature’ reports.

The main objective was therefore to obtain information upon both the actual use of different parts of the various reports, and the needs and expectations of the ‘end users’ (mainly academics, researchers and other archaeologists). ‘This information would then be used to assess the effectiveness of conventional fieldwork publication in meeting the diverse needs of the discipline’ (Jones 2001: section 1.2). To achieve this the team of mainly academic archaeologists who were producing the PUNS Report intended to undertake ‘a review of the history of publication rationale and practice’ (Jones 2001: section 1.4), and then conduct a comprehensive survey of ‘end users’. This involved both a self-administered postal questionnaire (2668 ‘end users’ were contacted, 878 replied and 795 (almost 30% of the total) of those replies were usable), and forty semi-structured face-to-face interviews with a representative cross-section of selected individuals, as well as additional information from editors and publishers, and independent quantitative information about the actual use of archaeological reports from citation records and libraries.

The results of this survey highlighted:

- 1 Widespread dissatisfaction with the structure of reports, and diversity of opinion about the purposes of writing them.
- 2 Burgeoning ‘grey literature’ reports, inadequate synthesis, delay in the appearance of summaries of new work, and imbalances in reporting, are all held to be militating against the current use of much of what is being produced.
- 3 Inadequacies in provision for editorial support and training, standards of preparation, consistency in procedures, and capacity for prompt production.
- 4 The absence of any single template for archaeological publication which might be suited to all branches of the discipline in all parts of Britain and Ireland.

(adapted from (Jones 2001: section 6.1))

The PUNS Report then pointed out that unlike earlier policy documents which reflected the attempts of national agencies to address specific problems, the recommendations that it puts forward represented the view and differing opinions of a large number of ‘end users’, and were therefore more ‘generic rather than prescriptive, intended to facilitate progress under evolving and varying circumstances’ (Jones 2001: section 6.1).

In an abbreviated form these recommendations were:

- 1 Clarify vocabulary.

(We recommend that as far as possible the term *publication* should be used to mean the completion and issue of a substantive report, regardless of medium.)
- 2 The form and scale of publications should be governed by the significance and scale of the results.

(Many fieldwork publications provide too much detail for the general reader and too little for the specialist, and we recommend that to quote the SoA Report from 1991 ‘the form and scale of [a] publication should be commensurate with what the

results have to offer rather than a mechanistic process which is applied regardless of the quality and potential of the data concerned'.)

- 3 Multiple forms and media of dissemination should be used, as appropriate for a given project.

(We recommend that a suite of means be employed to disseminate information, each tailored to particular purposes or audiences, which in the aggregate could be regarded as *publication*.)

- 4 New and better means be found for tracking work in progress and providing summary notice of recent work.

(The survey finds a near universal suspicion that more is being done, published or archived than any individual can reasonably ascertain from existing sources, and that there is geographical limitation in what is regularly scanned. An internet based tracking system, if adequately resourced, would therefore have distinct advantages.)

- 5 Funding and editorial policy be refocused to encourage the production of more synthetic fieldwork publications, with integration of description and interpretation, greater integration of structural and artefactual evidence and greater attention to narrative style.

- 6 Funding and editorial policy should facilitate and encourage authors to consider electronic publication either instead of or in conjunction with print publication.

- 7 Detailed structural and specialist reports are published on the internet.

(We propose the establishment of a specific forum, where work can be indexed and accessed with ease, and where peer review ensures that such publications provide improved means of attracting academic recognition.)

- 8 Archives are made available on the internet.
(The survey found strong support for the mounting of all archives on the internet, supported by well-indexed and queryable databases. Funding agencies and local authorities should consider making this mandatory for projects within their remit.)
- 9 Systematic attention is paid to editorial training, with consideration given to extensive funding of editorial posts.
(More systematic attention to editorial training would be desirable, and some university teaching about the writing of excavation reports - especially issues of structure, balance and the basics of clear style - would pay dividends for the discipline as a whole.)
- 10 Financial support for local, regional and national society journals should be increased.
(The survey highlights the immense value of local, county, national and thematic journals. Such periodicals are vehicles for publication with associated peer review systems, editorial provision and audiences. It would be in the mutual interests of societies and funding agencies to review their relationships.)
- 11 There should be a fundamental review of commercial assumptions.
(The survey demonstrates little correlation between publication sales and publication use. If dissemination of knowledge is the underlying aim, it would arguably be as reasonable to give the publication away as to sell it.)
- 12 National agencies should review their responsibilities for addressing the consequences of commercially driven archaeology.
(We recommend that national agencies, particularly English Heritage should shoulder more responsibility for addressing these issues, which ultimately stem from PPG15 and PPG16, and their derivatives. In part this means seeking to establish a climate in which both contracting and curatorial archaeologists are in a

position to urge publication which is intellectually appropriate and publicly satisfying.)

- 13 Funding bodies and peer review panels should acknowledge the interdependency between publication and the scholarly development of individuals in their careers. (This is an issue which lies at the base of the well-being and productivity of the discipline. Change can appear to be threatening, and it is important that the changes recommended above should be perceived by fieldworkers and specialists alike as supportive and progressive rather than cautious or undermining.)

- 14 National agencies should develop management frameworks and funding structures to facilitate the production of regional, period and thematic works of narrative synthesis. (We argue that the discipline can no longer rely on those sectors traditionally concerned with synthesis - notably university archaeologists - to answer this need. Alongside personal research, therefore, we point to the necessity for national agencies to support initiatives for the systematic production of regional, thematic and period synthesis.)

- 15 The conclusions and recommendations contained within this report should be widely disseminated throughout the archaeological discipline.

(adapted from (Jones 2001: section 6.3) (*my emphasis*))

MoRPHE

English Heritage (2009) *Management of Research Projects in the Historic Environment: The MoRPHE Project Manager's Guide*. (2nd edition) London: English Heritage.

This document was intended to present ‘a general model of how projects should proceed, definitions of the roles involved in a project, guidelines in good practice in the various stages of project management and a series of document checklists to guide documentation of projects’ (<http://www.english-heritage.org.uk/publications/morphe-project-managers-guide> (accessed 2011)), and was described as providing ‘a framework of defined roles, procedures, stages, terms and key documents to assist the management of projects in our sector’ with specific Project Planning Notes providing ‘more in depth information on related topics’ (<http://www.english-heritage.org.uk/professional/training-and-skills> (accessed 2011)).

MoRPHE therefore started with a ‘MoRPHE for users of MAP2’ guide which re-established the general management principles outlined in MAP2, and then widened those principles out to cover all historic environment projects funded by English Heritage. This included the earlier use of MoRPHE in the initial project planning and development (described as a Start Up Stage), so that projects could be fully integrated into the English Heritage Research Agenda. MoRPHE also moved away from the strict Assessment, Analysis and Dissemination stages presented in MAP2 and specifically designed for archaeological projects, and instead outlined a more flexible approach (described as an Execution Stage) which was intended to fit the specific requirements of various individual projects. To manage and control this more flexible Execution Stage MoRPHE recommended a document driven process which involved the use of regular ‘Highlight Reports’ aimed at providing all of the Project Team members with key information, as well as a ‘Risk Log’ for potential problems and an ‘Issues Log’ for unforeseen problems that the project would have to respond to. MoRPHE also introduced a Closure Stage intended to ensure that the projects administration was properly completed, and that future recommendations were made in an ‘End of Project Report’ as part of an ongoing learning process.

MoRPHE also attempted to standardise the management terminology used, and placed greater emphasis upon defining the roles of specific individuals within the project, particularly establishing a more formal role for the project sponsor (through a Project Executive) in overseeing the direction of the project and complementing the role of the Project Manager, so in effect an English Heritage appointed Project Executive would be able to monitor and direct the project (roughly equivalent to a 1970's Site Director) while the Project Manager would be left with the day-to-day management (roughly equivalent to a 1970's Site Supervisor).

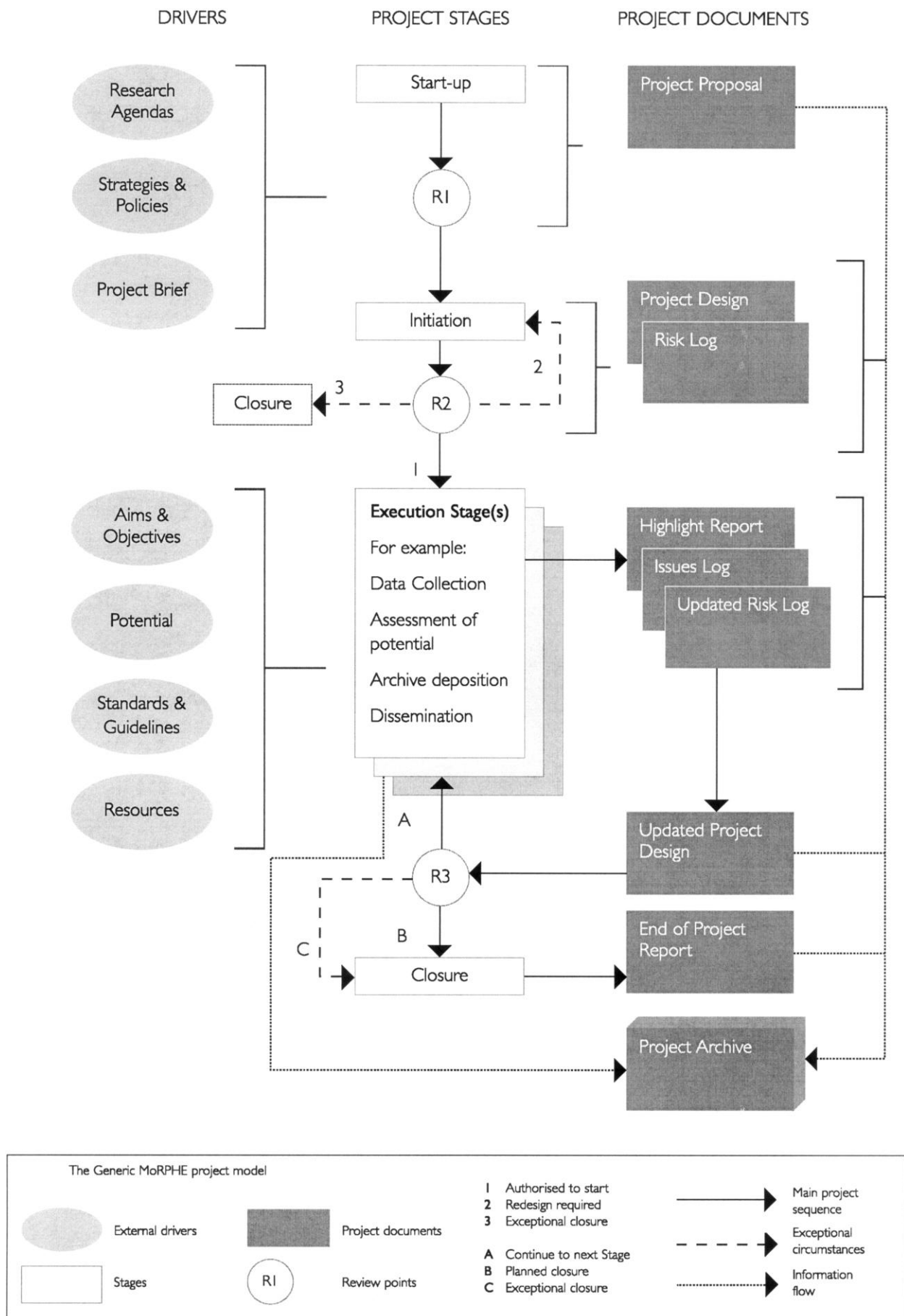


Figure 7: MoRPHE project management structure. (MoRPHE 2009: figure 2)

MoRPHE was therefore a more generic framework document which outlined and standardised basic project management principles for all English Heritage funded projects, and the more detailed and specific procedures for managing archaeological projects were then contained within MoRPHE PPN3.

Although similar to MAP2 in form and structure, MoRPHE PPN3 was also a more generic framework document which concentrated upon the procedural details and management documents involved in running, monitoring and controlling an archaeological project without going into detailed descriptions of the archaeological project documents produced during excavation or post-excavation. Other than refining the original document specifications and descriptions which had been presented in the appendices of MAP2 the only direct reference to specific archaeological records occurred in section 3.4.3, page 13, which stated that:

‘The site records and assemblages, when combined with the registers, photographs, drawings and diaries, will constitute the primary site archive. This is the key archive for the site, and is the raw data upon which all subsequent assessment and analysis and future interpretation will be based. The archive can therefore not be compromised, nor altered - it remains the original record of what was excavated or recorded, and how. The archive should be *quantified, ordered, indexed and made internally consistent*. All finds and coarse-sieved and flotation samples should have been processed and be stored under appropriate conditions. It should also contain a *site matrix*, summary of key findings, and descriptions of the artefact and environmental data. Arrangements should be made for proper cataloguing and storage of the archive during the project life-cycle and it may be appropriate to involve an archive / museum specialist.’

(MoRPHE PPN3 2008: section 3.4.3) (*my emphasis*)

This paragraph could be seen as re-stating and re-establishing both the original ‘bottom up’ approach to archaeological interpretation and the basic principle of ‘preservation by record’ outlined in MAP2, however, it is difficult to know if this was intended to be a

deliberate policy statement and a specific recommendation, or whether it was just repeating information that had been contained within MAP2.

Although MoRPHE was specifically designed to apply to large well-funded English Heritage projects its use on other archaeological projects was strongly encouraged, but whether it will have the same impact and effect as MAP2 upon smaller commercial archaeological projects remains to be seen. Initial signs are that MoRPHE and to a lesser extent MoRPHE PPN3 were both deliberately designed to leave more open to interpretation and therefore lack the specific detail of MAP2, so commercial archaeological organisations are more likely to adopt the bits that suit them and ignore the rest while still following their own variation of MAP2 (Participant Interview 10: 20 - 21), however, this impression may be due to the amount of time it takes for changes to work their way into new post-excavation projects. To a large extent the effect and lasting influence of MoRPHE and MoRPHE PPN3 will depend upon whether commercial archaeological organisations still feel obliged to follow English Heritage guidelines or not, and whether it would cost them more to do so.

PPS5

Department of Communities and Local Government (2010) *Planning Policy Statement 5: Planning for the Historic Environment*. London: Department of Communities and Local Government.

Unlike PPG16 which provided detailed ‘planning policy *guidance*’ for archaeology, PPS5 was a much simpler ‘planning policy *statement*’ produced after a long period of consultation and intended to cover the entire historic environment, and it appears to have subtly changed government policy in favour of the protection and preservation of that historic environment, however, it also appears to leave more open to interpretation and case-by-case discussions and negotiations. To compensate for this the context within which these negotiations were intended to take place also appears to have subtly changed as the local Archaeological Monitors (as members of the local planning authority) were no longer expected to adopt a balanced approach and ‘weigh the relative importance of archaeology against other factors including the need for the proposed development’ (PPG16 1990: paragraph 8), but were expected to protect the interests of the historic environment, the local community and future generations (PPS5 2010: section HE9.1; PPS5 2010: section HE7.3 and HE7.4), and were also responsible for insuring standards of archaeological recording and publication (PPS5 Practice Guide 2010: section 130), so they seem to be expected to fulfil roughly the same role as the City or County Archaeologists did in the 1970’s.

To simplify these discussions and negotiations PPS5 introduced and defined a number of relatively open terms (PPS5 2010: annex 2), including ‘Heritage Asset’ which was described as a building, monument, site, place, area or landscape which ‘holds meaning for society over and above its functional utility’ (PPS5 Practice Guide 2010: section 11), and which has been positively identified as being of ‘Archaeological Interest’, ‘Historical Interest’, ‘Architectural Interest’ or ‘Artistic Interest’, or any combination of all four, and including its setting. Planning decisions and negotiations were therefore intended to be based upon an assessment of the significance of the heritage asset (provided by the developer) and its value to this and future generations as a result of its ‘Heritage Interest’, with ‘a presumption in favour of the conservation of designated heritage assets and the

more significant the designated heritage asset, the greater the presumption in favour of its conservation should be.’ (PPS5 2010: section HE9.1) So practically anything could be a heritage asset, and discussions and negotiations then centre around the *significance* of that heritage asset assessed upon archaeological, historical, architectural and artistic grounds, with a presumption in favour of conservation. Any alteration or development of a heritage asset could therefore only be justified if it also provides an appropriate ‘Heritage Benefit’ which included preservation, restoration, regeneration or improvements to access or setting. (PPS5 Practice Guide 2010: section 79)

All of the original principles of ‘preservation *in situ*’ set out in PPG16 were therefore restated and reinforced in PPS5: section HE12.1, page 11 and PPS5 Practice Guide: section 127, page 36, as well as in PPS5 Practice Guide: section 99, page 31 which states that:

‘Sites, places and buildings having, or suspected of having, archaeological interest can be particularly sensitive to development. Sometimes even very minor works can irrevocably damage the interests of a future investigation of the site. In such cases the applicant and local planning authority will need to:

- 1 Properly understand the nature, relative importance and physical extent of the archaeological interest in these sites through a desk-based assessment, field evaluation, basic appraisal or recording of the asset as required.
- 2 Consider proposed uses that are benign to the conservation of the asset’s significance.
- 3 Seek to eradicate or minimise impact through design (for example, foundations that span sensitive areas rather than penetrate them).’

(PPS5 Practice Guide 2010: section 99)

From an archaeological perspective the most significant sections appear to have been ‘Policy HE12: Policy Principles Guiding The Recording Of Information Related To Heritage Assets’ (PPS5 2010: section HE12), and their corresponding guidance notes, PPS5 Practice Guide: section 126 - section 141.

PPS5: section HE12, page 11 states that:

‘HE12.1 A documentary record of our past is not as valuable as retaining the heritage asset, and therefore the ability to record evidence of our past should not be a factor in deciding whether a proposal that would result in a heritage asset’s destruction should be given consent.

HE12.2 The process of investigating the significance of the historic environment, as part of plan-making or development management, should add to the evidence base for future planning and further the understanding of our past. Local planning authorities should make this information publicly available, including through the relevant historic environment record.

HE12.3 Where the loss of the whole or a material part of a heritage asset’s significance is justified, local planning authorities should require the developer to record and advance understanding of the significance of the heritage asset before it is lost, using planning conditions or obligations as appropriate. The extent of the requirement should be proportionate to the nature and level of the asset’s significance. *Developers* should publish this evidence and deposit copies of the reports with the relevant historic environment record. Local planning authorities should require any archive generated to be deposited with a local museum or other public depository willing to receive it. Local planning authorities should impose planning conditions or obligations to ensure such work is carried out in a timely manner and that the completion of the exercise is properly secured.’

(PPS5 2010: section HE12) (*my emphasis*)

These points were then expanded on in PPS5 Practice Guide: section 130, page 36 which states that:

‘Where development will lead to a loss of a material part of the significance of a heritage asset, policy HE12.3 requires local planning authorities to ensure that developers take advantage of the opportunity to advance our understanding of the past before the asset or the relevant part is irretrievably lost. As this is the only opportunity to do this it is important that:

- 1 Any investigation, including recording and sampling, is carried out to professional standards and to an appropriate level of detail proportionate to the asset’s likely significance, by an organisation or individual with appropriate expertise.
- 2 The resultant records, artefacts and samples are analysed and where necessary conserved.
- 3 The understanding gained is made publicly available.
- 4 An archive is created, and deposited for future research.’

(PPS5 Practice Guide 2010: section 130)

These points, along with the ‘Reporting, Publication and Archiving’ section of PPS5 Practice Guide (particularly PPS5 Practice Guide 2010: section 135) appears to re-stated and reinforced the basic principle of ‘preservation by record’, as well as the need to publish the results of the archaeological excavation. However, HE12.3 also appears to transfer the responsibility for that publication directly onto the developer as part of their planning conditions, so in theory the local Archaeological Monitors would be able to set a publication deadline and project completion date as part of the planning conditions, which the developers would then have to meet. How this will work in practice is difficult to determine, presumably these deadlines would then be written into the contracts between the developers and their sub-contractors, the commercial archaeological organisations. So if the commercial archaeological organisation failed to meet their deadlines or if the local Archaeological Monitor rejected their final report due to poor standards then the developer

would have failed to meet their planning conditions and would then be subject to financial penalty clauses, which they would then pass on to the commercial archaeological organisations, and these threats of potential financial disaster may become the mechanism by which local Archaeological Monitors could raise the standards of both archaeological recording and archaeological publication, if they are prepared to use them (see <http://www.bajrfed.co.uk/showthread.php?7435-Developer-charged-with-breach-pf-conditions-after-failure-to-complete-archaeology> (accessed 2013)).

PPS5 appeared to provide local Archaeological Monitors with both considerable powers and considerable responsibilities, however, these powers and responsibilities and how they were implemented in practice depended entirely upon individual Archaeological Monitors and their willingness to use the powers they now had to establish local policies, local procedures and higher standards.

APPENDIX 3

A PERSONAL REFLEXIVE ACCOUNT OF MY ORIGINAL MOTIVATION

‘To begin at the beginning.’
(Dylan Thomas, UNDER MILK WOOD)

The origins of this project can be traced back to 2006. At the time I had just resigned from the Norfolk Archaeological Unit to spend the summer excavating a temple in the Roman town of Butrint, in Albania, and upon my return I had arranged to work as a freelance post-excavation specialist completing old post-excavation projects for what had by then become NAU Archaeology, a subsidiary of a property services company called NPS. The first project I had to deal with was a large site named Lacons Brewery to the west of Filler’s Hill in Great Yarmouth which had originally been excavated by the NAU as a series of nine separate pre and post demolition trenches in March and June 1997 as part of a planning constraint for the construction of an Aldi Supermarket.

Unfortunately, this particular post-excavation project had had a long and complicated history. The original Project Officer had completed the initial part of the post-excavation soon after the excavation had finished, but he had then left the NAU for another job before completing the final Publication Report. Then in 2001 the post-excavation was handed on to another Project Officer who completed a first draft of the Publication Report before also leaving the NAU for another job, this time as an archaeological consultant, so by the beginning of 2003 the final Publication Report was very close to completion but still required some editing and a number of Specialist Finds Reports were still missing.

This particular archaeological project was due to be published in the local archaeology journal, Norfolk Archaeology, however, while the post-excavation was waiting for

someone else to complete it Norfolk Archaeology changed their publication policy. This involved moving towards a more 'synthetic' approach to archaeological publications which was intended to produce 'reports that provide an interpretative account of the development of a site or landscape with reference to detailed information where necessary, rather than reports which offer detailed accounts of stratification' (T. Ashwin, pers. comm., 2006 (former editor of Norfolk Archaeology)). This would appear to be a higher level interpretation which would include more external sources of information, and which would produce a wider ranging more speculative article, rather than the standard descriptive archaeological report which was intended to disseminate archaeological information. So even if the Lacons Brewery Publication Report had been completed it could no longer be published in its current form, and to add to the problems most of the money set aside for the post-excavation work had already been used up.

This was the situation when I was asked to look at the project in the autumn of 2006. I first started by attempting to use the existing Publication Report as the basis for a more general Synthesis Report, however, upon closer examination I soon found that the earlier Publication Report had been written using a 'top down' approach to archaeological interpretation, so although it provided an interesting site narrative much of the middle and later part of that narrative was not supported by the archaeological records contained within the Site Archive. There were also problems with much of the dating which appeared to have used the dates of manufacture from the pottery report and then adjusted these to fit in with the existing site narrative, and one of the trenches had been wrongly located on a 19th century map during the early part of the excavation and this had then effected both the recording and the later interpretation of that part of the site. I therefore decided to abandon the earlier Publication Report and instead rely upon the information contained within the Site Archive, which although it needed checking was in a far better state.

While researching the history and development of Great Yarmouth I had also read an archaeological report entitled *Excavations on Fuller's Hill, Great Yarmouth* which had been written by Andrew Rogerson and published in *East Anglian Archaeology* (No. 2) in 1976. This report described the archaeological excavation which had occurred in 1974 in one main east/west trench and two smaller trenches on the Falcons Brewery site which

covered the top and the start of the western slope of Fuller's Hill, directly to the east of the Lacons Brewery site on the other side of George Street, which was one of the earliest north/south roads in Great Yarmouth. These two excavations were therefore separated by George Street, but covered the entire area to the west of Fuller's Hill, from the highest point in Great Yarmouth right down to the shoreline of the River Bure on the western side of the town, a total east/west distance of about 200m to 250m. These two sites were not only the two largest archaeological excavations to have taken place in Great Yarmouth, they also seemed to be stratigraphically and chronologically linked, so for example it appeared that during the Anglo-Norman Period people were living on the western side of the Falcons Brewery site fronting onto George Street, but were dumping their rubbish downhill on the other side of the road in the sand dunes on the eastern side of the Lacons Brewery site, and when the Falcons Brewery site finished due to modern truncation (around 1220 AD), building work was just starting to take place on the lower Lacons Brewery site (around 1250 AD). So as these archaeological excavations were so closely related and their archaeology seemed to complement each other so neatly, the obvious solution seemed to be to merge these two sites and produce a single Synthesis Report which covered the general area west of Fuller's Hill down as far as the foreshore.

I therefore took the opportunity presented by having to produce a Synthesis Report to adopt a different approach and attempt to write a different type of archaeological report, one which was not restricted to the area of excavation and the dissemination of disconnected bits of specific archaeological information, but one which used all of the available archaeological and historical information, including documentary evidence and early map evidence, in an attempt to fill in the gaps and reconstruct the contemporary physical environment of the entire area west of Fuller's Hill down as far as the foreshore, and then place that local historical development within the wider historical and social context of the town. This type of Synthesis Report would therefore be far more speculative, but it would also act as both a summation of the current archaeological and historical knowledge, and as a point of reference and a working hypothesis against which future research and excavation could then be tested. So having produced a basic proposal and got it approved by NAU Archaeology, the local Archaeological Monitors and the editor of Norfolk Archaeology I started writing the report.

As always, this turned out to be far more difficult than I had first thought. The first problem I encountered was establishing the right level of description, this had to be detailed enough so that the reader could imagine the archaeological evidence that was being described, but not so detailed that it became a list of archaeological deposits. I also had to establish an appropriate level of interpretation, somewhere between very basic low level interpretation and higher level interpretation which could easily become sweeping generalisation, over simplification or mere speculation, however, to a certain extent both of these problems were decided, not by the amount or complexity of archaeology evidence, but by the word length of the report, which after some negotiations was set at approximately 20,000 words.

The next problem was coming up with some form of methodology for extracting comparable archaeological information from the existing reports, and then coordinating the archaeological information from the various sites and trenches within a chronological framework to reconstruct the contemporary physical environment across the entire area. This could only be done through dating the archaeological deposits in each trench based upon broad chronological periods and then checking that dating by comparing the composition and the OD heights of contemporary deposits in neighbouring trenches. This chronological framework could then be used to link archaeological evidence with the available documentary evidence and the early map evidence, and I spent considerable time and effort compiling a complete and coherent picture of the area which included all of the available archaeological and historical evidence from what was in effect twelve separate and widely dispersed excavations.

The final Synthesis Report was finished in the spring of 2007 at about 26,000 words, and was entitled *Building Houses on Shifting Sand*. It was then handed over to all relevant parties for inspection, but despite all the previous discussions and agreements it was rejected by the local Archaeological Monitors because it was too 'synthetic' and did not contain sufficient detailed description, and it was also rejected by the editor of Norfolk Archaeology because it was not 'synthetic' enough and contained far too much detailed description, as well as being a bit too long.

So having given the matter some further consideration I decided to split the existing report into two separate sections, with the first part describing the archaeological evidence in stratigraphic sequence by trench, and then a separate interpretative section which would cover the entire area done as a Synthesis Report by historic period. The local Archaeological Monitors would then receive the full report, both description and interpretation, and Norfolk Archaeology would receive just the Synthesis Report for possible publication.

To produce this new form of report I had to first extract comparable archaeological information from both the Falcons Brewery report and the Lacons Brewery documentation and then reconstruct or recreate individual Phase Groups based upon the composition of the archaeological deposits, and each of these Phase Groups was given an interpretative heading and top OD heights, but still kept the original coding or context numbers, so it would be relatively easy for the reader to consult the more detailed descriptions contained within the original documentation. I then used these Phase Groups to construct individual Phase Matrixes for each trench, and then used these as the basis for the individual trench descriptions in the descriptive section of the report. This descriptive section also contained all the previously unpublished Specialist Finds Reports, thus meeting one of the local Archaeological Monitors specific requirements.

To link these separate trenches I then constructed an Area/Date Table which used the chronological framework as its vertical axis and had the various Phase Matrixes laid out along the horizontal axis in an order which roughly represented their physical location on site (see Fuller's Hill Area/Date Table contained within the folder attached to the back cover of this volume). It was then possible to visualise all of the archaeological evidence and produce an archaeological interpretation of the entire area by reconstructing a sequence of events in both relative time and absolute time. This relied upon linking the separate trenches by dating various archaeological deposits, however, it was difficult to know how much confidence could be placed in that dating, so the Area/Date Table also acted as a means of checking the archaeological interpretation by making it possible to compare both the composition and the OD heights of the contemporary ground surfaces in neighbouring trenches at any particular point in relative time, thus producing an easily accessible visual guide to the entire interpretation. Having constructed a dated

archaeological interpretation it was then possible to incorporate or integrate the additional documentary evidence and early map evidence at the appropriate points within the chronological framework, including using data from a number of bore hole surveys to estimate the OD height and development of the foreshore to the west of the Lacons Brewery site at various point in absolute times.

Having already described all the archaeological evidence it was then possible to use the Area/Date Table to produce a shorter more speculative Synthesis Report which presented the archaeological interpretation, not as a sequence of archaeological deposits, but as a constantly changing physical environment. Finally, I included a Post Script which compared the two archaeological excavations and the two forms of documentation, and give a very brief explanation of how archaeology had changed (not necessarily for the better) over the intervening years. This second report was also entitled *Building Houses on Shifting Sand* and a first draft was finally finished in the autumn of 2007, with the entire report at about 62,000 words and the cut down Synthesis Report at about 21,000 words.

This approach appeared to offer a number of distinct advantages. When archaeological deposits from small trial trenches are viewed in isolation they cease to have any significant meaning and remain just a collection or sequence of isolated archaeological features, however, by stepping back and viewing all of the available archaeological evidence from within a wider geographical area along with additional documentary evidence and map evidence it is possible to gain a sense of perspective, and it then becomes possible to consider the contemporary physical environment as a whole and see how roads, paths and physical boundaries became establishment and how individual properties and structures changed and developed over time. This form of multiple site interpretation would therefore make the most effective use of both the archaeological information from small isolated trial trenches and the ‘grey literature’ reports produced by current commercial archaeology as part of the planning process, as well as offering an opportunity to review and re-assess all of the existing archaeological information from the previous archaeological projects within a specific area in the light of more recent evidence and additional information. It also offered an opportunity to digitise some of the existing archaeological documentation, so for example it was possible to scan the slides from both

excavations and incorporate them into the report, with working shots used to show the working conditions in the descriptive section of the report, and the more formal archaeological record shots used as illustrations in the interpretative section, thus lessening the need for additional description.

As part of the Synthesis Report I had also produced a very speculative developmental model which attempted to explain how occasional occupation in the windswept sand dunes of the Yarmouth sand spit could have developed first into temporary seasonal settlement and then permanent settlement in the space of about 120 years during the late Anglo-Saxon period, and the economic infrastructure that would have been necessary to support and maintain such a settlement. In an attempt to head off possible criticism of this speculative model I contacted Professor Richard Hodges who I had worked with in Albania and who at the time was a Professor at the University of East Anglia, but who more importantly was also the author of *Dark Age Economics: The Origins of Towns and Trade AD 600 - 1000* to ask his opinion upon the accuracy and validity of both the developmental model and the report. He replied that the model was fine and that I should look at contemporary sand dune settlements along the Dutch coast for similar examples, and he also suggested that I should consider doing a PhD on this form of 'archaeological microhistory' and its wider macro implications. So after some further consideration I contacted Steve Roskams at the University of York with a proposal for a possible PhD.

However, before I could put forward a specific solution I had to describe the current problem, and I had to explain how the post-excavation process had developed within professional archaeology and how the archaeological reports and Archaeological Publications had changed over the last fifty years.

(The '*Building Houses on Shifting Sand*' report never did get published. After completing the first draft NAU Archaeology contacted Aldi Supermarkets to ask for the final post-excavation payment, however, Aldi pointed out that the building had been constructed in 1997 and that it was now 2007 and they were thinking of selling the site, so if NAU Archaeology wished to pursue the matter any further they should take it up with the new owners. NAU Archaeology were not prepared to invest any funds in the completion of the project, so as far as I am aware the draft report has simply been added to the rest of the documentation, and is now sitting on a shelf somewhere in Norfolk.)

MY ARCHAEOLOGICAL EMPLOYMENT AND EXPERIENCE

1979

July - Sept. *Usk, Gwent* (Glamorgan Gwent Archaeological Trust)
Description: An urban Medieval building sequence and pre-fabricated Roman cavalry fort.
Position: Archaeological Volunteer

1980

July - Aug *Cold Knap, South Glamorgan* (Glamorgan Gwent Archaeological Trust)
Description: A Roman lighthouse or lookout post.
Position: Archaeological Volunteer

1981

July - Sept *Cold Knap, South Glamorgan* (Glamorgan Gwent Archaeological Trust)
Description: A Roman lighthouse or lookout post.
Position: Archaeological Volunteer

1982

June - July *Dragon Data PLC.*
Description: A systems analyst and computer games programmer.
Position: Computer Programmer

July - Sept *Claydon Pike, Oxfordshire* (Oxford Archaeological Unit)
Description: A large rural Roman villa complex and underlying Iron age settlement.
Position: Site Assistant

1983

June - Oct *Claydon Pike, Oxfordshire* (Oxford Archaeological Unit)
Description: A large rural Roman villa complex and underlying Iron age settlement.
Designed a software package for finds analysis.
Position: Site Assistant / Computer Programmer

1984

July - Sept *Crickly Hill, Gloucestershire* (Crickly Hill Trust)
Description: A Iron Age hill fort.
Position: Site Assistant

1985

March - May *Staple Gardens, Winchester* (Winchester Archaeological Unit)
Position: Assistant Post Excavation Supervisor

June - Dec *Staple Gardens, Winchester* (Winchester Archaeological Unit)
Description: An urban stratigraphic sequence consisting of Post Medieval occupation, Medieval town houses, Late Saxon property and road reorganisation, Mid Saxon cemetery and Early Saxon occupation on top of Roman public buildings and a sequence of Iron Age round houses.
Position: Site Supervisor

1986

Jan -March *Staple Gardens, Winchester* (Winchester Archaeological Unit)
Position: Post Excavation Supervisor

April *Small Mead Farm, (Reading Business Park), Reading* (Trust for Wessex Archaeology)
Description: A rural prehistoric evaluation project.
Position: Site Assistant

May - June *York Building, Southampton* (Southampton Archaeological Unit)
Description: An urban Medieval building sequence containing waterlogged deposits.
Position: Site Assistant

June - Sept *Green Lane, Barnstaple* (North Devon Archaeological Unit)
Description: An urban evaluation project along the line of the Saxon defensive ditch.
Position: Site Supervisor

Sept - Nov *Joy Street, Barnstaple* (North Devon Archaeological Unit)
Description: An urban Medieval building sequence and tannery complex.
Position: Site Supervisor

December *South West Gas* (North Devon Archaeological Unit)
Description: A field walking project along the line of a gas pipeline.
Position: Site Supervisor

1987

Jan - March *Bear Street, Barnstaple* (North Devon Archaeological Unit)
Description: A 17th - 19th century clay pipe factory.
Position: Site Supervisor

May - Oct *Stanwich, Northampton* (Central Excavation Unit)
Description: A large rural Roman villa complex and associated Iron Age settlement, also a circular Roman Temple constructed on top of a round barrow.
Position: Site Assistant / Area Supervisor

1988

Feb - March *Bricklayers Arms* (Dept. of Greater London Archaeology)
Description: A waterlogged Bronze Age causeway to the north of the Old Kent Road.
Position: Archaeologist

April - Oct *Hays Wharf* (Dept. of Greater London Archaeology)
Description: An urban Medieval and Roman waterfront sequence, including waterlogged dock and warehouse structures.
Position: Archaeologist

Oct - Dec *Butlers Court* (Dept. of Greater London Archaeology)
Description: A Medieval waterfront sequence consisting of wooden revetments.
Position: Senior Archaeologist

1989

Jan - April *Southwark Bridge* (Dept. of Greater London Archaeology)
Description: 'The Rose Theatre', the first Shakespearean playhouse.
Position: Senior Archaeologist

May *Giltspur Street, London* (Dept. of Urban Archaeology)
Description: An evaluation project for a major Roman cemetery.
Position: Senior Archaeologist

May - June *Great Tower Street, London* (Dept. of Urban Archaeology)
Description: A sequence of urban domestic Roman buildings.
Position: Senior Archaeologist

July *Whittington Av. London* (Dept. of Urban Archaeology)
Description: The Roman Forum.
Position: Senior Archaeologist

July *Fleet Valley Project, London* (Dept. of Urban Archaeology)
Description: The Medieval Fleet prison and London city wall.
Position: Senior Archaeologist

August *Steyning, West Sussex* (U.C.L. Field Archaeology Unit)
Description: A rural Late Saxon settlement within a defensive ditch.
Position: Site Assistant

Sept - Dec *Fleet Valley Project, London* (Dept. of Urban Archaeology)
Description: The Medieval Fleet prison and London city wall.
Position: Senior Archaeologist

1990

Jan - April *Giltspur Street, London* (Dept. of Urban Archaeology)
Description: A major Roman cemetery excavation.
Position: Senior Archaeologist

April - May *Fleet Valley Project, London* (Dept. of Urban Archaeology)
Description: A complex series of inter-cutting Medieval and Post Medieval drains and revetments to the east of the Fleet River.
Position: Senior Archaeologist

June Ground Radar Project (Dept. of Urban Archaeology)
Description: An evaluation project on the possible use of ground penetrating radar in archaeology.
Position: Senior Archaeologist

July - Dec *Sovizzo, Vicenza, Italy* (Multiart)
Description: A very large rural excavation containing a major Lombard cemetery, a sequence of early Roman structures and a Copper Age tumuli complex and processional avenue.
Position: Assistant Supervisor

1991

- Jan - March *Via Retrone*, Vicenza, Italy (Multiart)
Description: A Urban sequence of Medieval and Post Medieval riverside buildings.
Position: Assistant Supervisor
- April *Montorio*, Verona, Italy (Multiart)
Description: A large Roman municipal building and bath complex, and possibly an associated gymnasium.
Position: Assistant Supervisor
- May - August *Porta Palio*, Verona, Italy (Multiart)
Description: A major Roman cemetery containing both burials and cremations, as well as mausoleums and large funerary structures, also a sequence of Roman industrial tile and brick kilns.
Position: Site Assistant
- Nov - Dec *Boscarello*, Verona, Italy (Co. R. A.)
Description: An urban Medieval building sequence.
Position: Site Supervisor

1992

- Dec - March *Palazzo Zenobi* (Saggio A, B, C and D), Verona, Italy (Co. R. A.)
Description: An urban stratigraphic sequence consisting of a Medieval tower house and early Medieval buildings, Dark Age occupation and a number of prestigious Lombard burials, and a major Roman Imperial temple constructed on top of a sequence of earlier domestic Roman town houses.
Position: Site Supervisor
- April *Cerro Veronese*, Valpanienna, Italy (Co. R. A.)
Description: A Bronze Age hill fort.
Position: Assistant Supervisor
- May - June *Palazzo Zenobi* (Saggio E), Verona, Italy (Co. R. A.)
Description: An urban stratigraphic sequence consisting of a Medieval tower house and early Medieval buildings, Dark Age occupation, and a major Roman Imperial temple constructed on top of a sequence of earlier domestic Roman town houses.
Position: Site Supervisor
- June *Palazzo Zenobi*, Verona, Italy (Co. R. A.)
Position: Post Excavation Supervisor
- July *Montagnana*, Rovigo, Italy (Co. R. A.)
Description: An Iron Age settlement and an underlying Bronze Age settlement separated by a 1.50m flood deposit on the River Po flood plain.
Position: Assistant Supervisor
- Sept - Nov *Piazza Vescovado*, Verona, Italy (Co. R. A.)
Description: An urban stratigraphic sequence consisting of a Medieval piazza, Dark Age occupation and agricultural activity, and an Ostrogoth bath house complex constructed within the remains of a large Roman town house.
Position: Site Supervisor

Nov - Dec *Via Pigna*, Verona, Italy (Co. R. A.)
Description: An internal excavation within Medieval and Renaissance standing structures.
Position: Site Supervisor

1993

January *Via Pigna*, Verona, Italy (Co. R. A.)
Position: Post Excavation Supervisor

February *Via Ortolani*, Feltre, Italy (Co. R. A.)
Description: An evaluation project on a section of Roman town wall.
Position: Site Supervisor

Feb - March *Via Rosa*, Verona, Italy (Co. R. A.)
Description: An urban stratigraphic sequence consisting of Dark Age occupation on top of a sequence of Roman domestic buildings.
Position: Assistant Supervisor

March - June *Palazzo Zenobi* (Saggio F), Verona, Italy (Co. R. A.)
Description: An urban stratigraphic sequence consisting of early Medieval buildings, Dark Age occupation, and a major Roman Imperial temple constructed on top of a sequence of earlier domestic Roman town houses.
Position: Site Supervisor

July *Villamarzana*, Fratta Polesine, Rovigo, Italy (Co. R. A.)
Description: A large Iron Age settlement overlying an earlier waterlogged Bronze Age settlement.
Position: Assistant Supervisor

September *Palazzo Zenobi* (Saggio F), Verona, Italy (Co. R. A.)
Description: An urban stratigraphic sequence consisting of early Medieval buildings, Dark Age occupation, and a major Roman Imperial temple constructed on top of a sequence of earlier domestic Roman town houses.
Position: Site Supervisor

Oct - Nov *Palazzo Zenobi*, Verona, Italy (Co. R. A.)
Position: Post Excavation Supervisor

Nov - Dec *Colombara*, Aquileia, Trieste, Italy (Co. R. A.)
Description: A Late Roman cemetery, and a large drainage channel containing Roman waterlogged deposits.
Position: Site Supervisor

1994

January *Colombara*, Aquileia, Trieste, Italy (Co. R. A.)
Position: Post Excavation Supervisor

Feb - March *Concordia*, Portogruaro, Venezia, Italy (Co. R. A.)
Description: The Early Medieval Basilica constructed within a sequence of earlier Roman public buildings.
Position: Assistant Supervisor

March *Palazzo Erbisti*, Verona, Italy (Co. R. A.)
Description: A section of the main Roman aqueduct, and a large Bronze Age palisade constructed at the mouth of an extended natural cave.
Position: Site Supervisor

April - Dec *Mezzocorona*, Trento, Italy (Co. R. A.)
Description: The archaeological excavation of a large area of a small Late Roman provincial town, including a number of roads, a sequence of domestic, agricultural and public buildings and a cemetery, all of which had been covered by a 1.0m deep flood deposit while still occupied.
Position: Area Supervisor

1995

March - July *Mezzocorona*, Trento, Italy (Co. R. A.)
Description: The archaeological excavation of a large area of a small Late Roman provincial town, including a number of roads, a sequence of domestic, agricultural and public buildings and a cemetery, all of which had been covered by a 1.0m deep flood deposit while still occupied.
Position: Area Supervisor

August - Sept *San Vincenzo al Volturno*, Isernia, Italy (The British School at Rome)
Description: An Early Medieval monastic complex and associated workshops.
Position: Archaeological Volunteer

1995

to Completed a 200,000 word draft manuscript entitled 'Applied Archaeology' which is currently being updated and published as an Applied Archaeology Series on the British Archaeological Jobs Resource website (<http://www.bajr.org/BAJRGuides>).

2004

2004

May - June *Wattlington*, Downham Market, Norfolk (Norfolk Archaeological Unit)
Description: A rural Romano-British and Iron Age settlement.
Position: Archaeologist

June to July *40 Fishergate*, Norwich, Norfolk (Norfolk Archaeological Unit)
Description: The evaluation of a Medieval street frontage.
Position: Archaeologist

August to Sept *Bowthorpe*, Norwich, Norfolk (Norfolk Archaeological Unit)
Description: An evaluation project prior to housing development.
Position: Archaeologist

Sept to Oct *Southgate Street*, Kings Lynn, Norfolk (Norfolk Archaeological Unit)
Description: The evaluation of a town ditch and Tudor culvert.
Position: Archaeologist

Oct to Nov *Elveden*, Thetford, Norfolk and Suffolk (Norfolk Archaeological Unit)
Description: An evaluation project prior to A11 road development.
Position: Supervisor

Nov to Dec *30 Bridge Street*, Thetford, Norfolk (Norfolk Archaeological Unit)
Description: The evaluation of possible Saxon sand and gravel pits.
Position: Archaeologist

2005

Jan to Feb *Croxton Road*, Thetford, Norfolk (Norfolk Archaeological Unit)
Description: The evaluation of a number of sand quarry pits and Medieval burials.
Position: Archaeologist

Feb *Browick Road*, Wymondham, Norfolk (Norfolk Archaeological Unit)
Description: The evaluation of an area of possible Saxon settlement.
Position: Supervisor

March *98-100 Bull Close*, Norwich, Norfolk (Norfolk Archaeological Unit)
Description: The evaluation of Medieval sand quarry pits.
Position: Archaeologist

April to May *17-27 Fishergate*, Norwich, Norfolk (Norfolk Archaeological Unit)
Description: The evaluation of Medieval street frontage.
Position: Archaeologist

May *47 Bridge Street*, Loddon, Norfolk (Norfolk Archaeological Unit)
Description: The evaluation of prehistoric river sediment.
Position: Archaeologist

May to June *Bowthorpe*, Norwich, Norfolk (Norfolk Archaeological Unit)
Description: The excavation of a limited area of a dispersed rural Saxon settlement.
Position: Archaeologist

July *Norwich Provisions Market*, Norwich, Norfolk (Norfolk Archaeological Unit)
Description: An evaluation project prior to re-development.
Position: Archaeologist

August to Sept *Reads Flour Mill*, Norwich, Norfolk (Norfolk Archaeological Unit)
Description: An evaluation project prior to re-development.
Position: Archaeologist

Sept to Nov *40 Fishergate*, Norwich, Norfolk (Norfolk Archaeological Unit)
Description: The excavation of a Medieval and Saxon street frontage.
Position: Archaeologist

Nov to Dec *Norwich Provisions Market*, Norwich, Norfolk (Norfolk Archaeological Unit)
Description: An evaluation project prior to re-development.
Position: Archaeologist

2006

Jan to April *Busseys*, Norwich, Norfolk (NAU Archaeology)
Description: The excavation of Medieval houses and sand quarry pits, and a possible Anglo-Scandinavian structure. Compiled a video record of the excavation in conjunction with the BBC.
Position: Archaeologist / Video Camera Operator

- April to May *Norwich Provisions Market, Norwich, Norfolk (NAU Archaeology)*
Description: Completed the Post-Excavation Assessment Report and Updated Project Design.
Position: Archaeological Project Officer (Post-Excavation)
- June to August *Roman Forum, Butrint, Albania (International Centre for Albanian Archaeology)*
Description: An archaeological excavation within the standing structure of the tripartite Hellenistic and Roman temple to the north of the Roman forum.
Position: Archaeological Volunteer
- Sept to Dec **Self Employed:** Freelance Post-Excavation Specialist, writing archaeological site reports for publication.
Description: The interpretation and completion of previously unpublished archaeological excavations, mainly for NAU Archaeology.

2007

- Jan to Dec **Self Employed:** Freelance Post-Excavation Specialist, writing archaeological site reports for publication.
Description: The interpretation and completion of previously unpublished archaeological excavations, mainly for NAU Archaeology.
- Sept to Dec Part time lecturer in Urban Archaeology and Archaeological Methodology at the University of East Anglia (CE).

2008

- Jan to Date **Self Employed:** Managing Director and Company Secretary of Archaeological Research Ltd, a secondary co-operative for Post-Excavation Specialists.
Description: The interpretation and completion of previously unpublished archaeological excavations, mainly for NAU Archaeology.

2009

- Nov to Date Part time PhD research student studying 'Archaeological Microhistories: Multiple Site Interpretations' at the Department of Archaeology, the University of York.

2010

- June to Dec *Dwr-y-Felin, Neath, West Glamorgan (Glamorgan Gwent Archaeological Trust)*
Description: A very large open area excavation of the north western side of the Early Roman legionary fort in Neath including the *via sagularis*, the industrial strip, the defensive ramparts and ditches, and the surrounding external road system.
Position: Archaeologist

2011

- Jan to Feb *Dwr-y-Felin, Neath, West Glamorgan (Glamorgan Gwent Archaeological Trust)*
Description: A very large open area excavation of the north western side of the Early Roman legionary fort in Neath, including the *via sagularis*, the industrial strip, and the defensive ramparts and ditches.
Position: Archaeologist

March to Dec Part time PhD research student studying ‘Archaeological Microhistories: Multiple Site Interpretations’ at the Department of Archaeology, the University of York.

2012

Jan to Dec Part time PhD research student studying ‘Archaeological Microhistories: Multiple Site Interpretations’ at the Department of Archaeology, the University of York.

2013

Jan to June Part time PhD research student studying ‘Archaeological Microhistories: Multiple Site Interpretations’ at the Department of Archaeology, the University of York.

July to Sept *Cyfarthfa Ironworks*, West Glamorgan (Glamorgan Gwent Archaeological Trust)
Description: A very large open area excavation of Cyfarthfa Coke Works in Merthyr Tydfil which operated from 1766 to 1910, including the several phases of coke ovens and their associated heating systems.
Position: Archaeologist

Sept to Dec Part time PhD research student studying ‘Archaeological Microhistories: Multiple Site Interpretations’ at the Department of Archaeology, the University of York.

2014

Jan to Feb *Harlech Castle*, Gwynedd (Archaeology Wales)
Description: An open area excavation in front of the castle which contained a medieval chapel and a cemetery.
Position: Archaeologist

Feb to Dec Part time PhD research student studying ‘Archaeological Microhistories: Multiple Site Interpretations’ at the Department of Archaeology, the University of York.

2015

Jan to Dec Part time PhD research student studying ‘Archaeological Microhistories: Multiple Site Interpretations’ at the Department of Archaeology, the University of York.

August to Dec *Flint*, Flintshire (Archaeology Wales)
Description: A very large open area excavation of the town defences constructed by Edward I prior to the English invasion of north Wales in 1277.
Position: Archaeologist

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