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Evaluating the Future for Grey Literature

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It is not an exaggeration to say this journey has proven to be one of the most challenging I have experienced in my life so far. Amidst serious and ongoing illness, and a raft of personal problems and numerous bereavements, there were many times where I could have quite simply thrown-in-the-towel. But I didn't, I persevered – only really through the encouragement of my supervisors, my Department, and with the support of staff from the Disabled Support (DDSS) Centre at the University.

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My family, comprising my mum, dad and sister Andrea have been graciously patient, and markedly restrained in asking – have you finished yet? Though I recognize the most patient has been my partner of nearly 20 years, Nick White. I can guarantee, here and now, the journey is almost over. I know how long you have been waiting – soon, I promise, we can finally focus on planning our wedding.

The satisfaction of reaching this stage, finally poised for submission is immeasurable, and regardless of what happens next, that sense of huge personal achievement will never dampen.

Abstract

This thesis explores the underlying principles behind the two divergent views relating to a grey literature crisis. It achieves this by presenting a review of the current mechanisms of grey literature production. It acknowledges how methodological and epistemological considerations, supersede any ratification of a coherent disciplinary ontology. Furthermore, by characterising a selected historiography of the archaeological field experience, and exposing the conceptual thinking behind the idea of past as record, it reinforces the prioritisation of record production, over historical enquiry. Through a critical assessment of the optimised field-interventions undertaken in the commercial sector, this prioritisation exposes a series of indicative limitations – first, and foremost pertaining to the viability of the end-product (i.e. the grey literature) of such endeavours. The study utilises the isolatable geopolitical context of England, however, the methodology developed herein, can and should be applied to wider UK contexts as future research.

Turning attention to the efforts made to challenge the concept of a grey literature crisis, a subsequent review is undertaken of current perceptions regarding the use-value of grey literature. This is achieved in the context of characterising examples of their selection-for-use within nine synthetic projects. The findings indicate how much faith is placed upon the transformative process of synthesis, to educe data of sufficiently comparable format and standard to facilitate a more up-to-date and better informed narrative.

The research then extends the project characterisation by analysing the ways in which the perceived use-value of grey literature is realised. The analysis is able to qualify and quantify how grey literature resources are prioritised within the project narratives, with the findings indicating much variability amongst the projects studied. By establishing a working appreciation of the use of grey literature, as a research-resource, the thesis further considers how an understanding of this use may inform and improve guidance relating to its production, and presents these ideas as a series of working observations and recommendations for further study.

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Chapter 1- Introduction

Grey literature has, in recent decades, become the fastest growing output from archaeological investigations. Given the sheer quantity of commercial work undertaken in the UK (with the focus on England for this thesis), grey literature has unsurprisingly outpaced more traditional forms of excavation reporting. The positioning of grey literature, as a valid archaeological resource, has, over recent years, been the subject of increasing criticism from within the discipline. With critics typically emphasising the unstoppable nature of its generation, the somewhat unreceptiveness of a product seen as fulfilling an archival imperative, the homogeneous implications embodied by grey literature's typically formulaic character, as well as the perceivable limitations of the commodification and commercialisation of the archaeological agenda (see Barrett 2006, 194; Frankel 1993, 876; Fitzpatrick 2012, 151; Harlan 2010, 270; Last 2012; Lock 2008, 37; Roth 2010; Seymour 2010, 228; Wilkins 2012, 58).

As the criticisms of grey literature continued to be recycled and revoiced throughout the 1990s and 2000s, a small number of advocates for the regard and use of these resources emerged – immediately dismissive of the existence of a grey literature crisis. Believing such concerns to be borne from: a lack of familiarity with this particular resource-type; the dogma of academia, where the expectation remains that publications should be subject to rigorous peer-review; and value-judgments, as regards the content and influence of these reports, which remained measured against conventional and inapplicable objectives and outputs (see Darvill and Russell 2002, 58; Fulford and Holbrook 2011; Thomas 2007). This growing body of supporters remained indifferent to repeated claims that grey literature, frequently conceived as a nebulous body of work, was wholly inconvenient, and symptomatic of less-than-adequate sectoral circumstances (see Darvill and Russell 2002, 4; Darvill et. al. 2019; Hills 1993, 222). Their response was not to explore and endorse a fuller study of the conditions of grey literature production, in order to falsify the ardent claims of grey literature detractors, rather they chose to instigate a number of synthetic projects, designed to illustrate the untapped potential and latent value held in grey literature archives.

Attitudes regarding grey literature, thus diverged, and have persisted, defined by two contrasting positions which can be summarised as:

> **1:** contentions which outline the continuing crisis as a procedural matter – whereby the investigative mechanisms, frequently employed in commercial settings, limit the viability of grey literature as a valid archaeological resource (see Chadwick 2000; Scanlon et. al. 2011; Southport 2011).

2: a matter pertaining to our disciplinary perceptions of 'value' – which remain entrenched within somewhat restrictive parameters. Advocates espouse faith in the potential of grey literature, holding firm a belief that demonstrable use, and integration can significantly alter these fixed perceptions (Aitchison 2010; Bradley 2007; Thomas 2013).

The aim of the thesis is to further explore these two divergent, though persisting, threads of discourse. Currently, these two broad claims have been sufficiently established, to allow the opportunity to now explore and critique their viability. The proceeding thesis presents two distinct objectives:

1: to fully conceptualise the grey literature crisis in terms of its ontological and methodological conditions, which are arguably already presupposed within the archaeological discipline, and also importantly shaped by equally significant external (commercial) forces.

2: to explore how contributing 'value' to the grey literature resource is both perceived and realised, within both emerging and established projects which aim to synthesise their content alongside more traditional sources of evidence.

The crisis is sufficiently complex and large that it cannot be expected to be resolved within a single PhD thesis. Rather, the thesis presented here will aim to position the viability of the two opposing discourses within more informed and up-to-date explanations, taking full consideration of both the regulatory changes seen in development-led archaeology since the inception of PPG16, and the summative achievements of a number of projects seeking to utilise evidence derived from grey literature sources.

Chapters 2, 3 & 4 encompass a historiographical review of field methodology, and the advent of planning-guidance, considering how these factors have shaped the construct of grey literature, as an accepted means of communicating the findings of development-funded investigations. Chapter 2 specifically focuses upon the concept of ontology, and seeks to establish a point of convergence in the key objective of the archaeological discipline, as a whole. It seeks to achieve this by reviewing a selection of go-to archaeological literature, to ascertain the language used in defining the archaeological objective. Chapter 3 examines the historical development of field practice, and our theoretical and epistemological assertions, regarding the material past. This review is achieved by focusing upon the key practitioners in the discipline's history, and emphasising their drive to conceive the past as record. Chapter 4 considers the rapid, and evolving commercialisation of the archaeological endeavour, and outlines the perceived limitations of a preservation-by-record objective. The chapter begins with focusing on PPG 16, and MAP2 – the two significant pieces of guidance that have informed the rapid production of grey literature through the 1990s and early 2000s. The

more recent changes of planning guidance are also considered, with reference to the legacy of PPG16 practice and outputs.

Chapters 5, 6 & 7 review the concept of value, imposed upon grey literature, through its use and integration in synthetic discourse. Chapter 5 presents a characterisation of nine projects which aim to realise the potential of grey literature – establishing detail such as the types of publication genres represented, and the structures employed in integrating grey literature. Chapter 6 follows with an in-depth analysis of exactly how grey literature are selected and prioritised for synthetic integration. Utilising both qualitative and quantitative means, the analysis studies the in-text referencing of grey literature, and identifies how evidences are employed in narrative production. Chapter 7 studies a range of current, guidance documents regarding the formation and structure of grey literature sources, and considers how an informed understanding of grey literature's use-value, as established in Chapter 6, could help shape future content and guidance.

The thesis concludes, with an Executive Summary (found in chapter 8), and goes on to suggest a number of areas where further research is needed, as identified throughout the thesis research process (chapter 9).

In addition, the discussions and analysis undertaken in the thesis, presented by the outline above, are intended to be foregrounded with a clear definition of the grey literature resource. This definition is considered an essential conceptual template to inform the reader of the parameters of the focus of this study.

1.1 - Grey Literature: A Pen Portrait

Grey literature refers to a specific type of report, which details the outcomes (or on occasion the interim findings) of developer-funded investigations, as well as other externally funded activities, and can include field evaluations, excavation findings, desk-based assessments, watching briefs and surveys. The reports are produced by the organisation undertaking the investigations, and are presented as a 'client report' – in essence they are a communication of work completed, circulated between an organisation (i.e. archaeologists), and their paying client (e.g. the developer). Thus they are designed to have a specific focus, as they are the principal (and sometimes only) reported representation of the work undertaken: the fulfilment of a project brief (see Aitchison 2010, 295; Fitzpatrick 2012, 144-5).

The format and content of grey literature reports has been shaped by a series of guidance documents, including the Management of Archaeological Projects (MAP2) and its replacement, the Management of Research Projects in the Historic Environment (MoRPHE) (see English Heritage 1991; 2008). These guidance documents have been successively introduced, alongside planning policy guidance changes, to clarify how investigations are best disseminated and to ensure professional reporting standards / benchmarks are maintained (Everill 2009, 37; Hills 1993, 215). It is through the aid of such guidance and the implementation of report-templates by archaeological companies, which have given grey literature their particularly distinctive, technical style.

Crucially, these reports are unpublished (see Connah 2010, 10), and are often authored by project staff. Until they have been received, and effectively signed-off by the paying client, their content remains bound by confidentiality (though this is by no means a characteristic unique to grey literature). Once the report, and the work it details, has been approved by the client (who are often working under the advisement of a Local Government Planning / HER Officer), the grey literature reports are deposited into the archives maintained by the geographically corresponding Historic Environment Record (HER). The contents of these documents are designated by various data-codes, indexes and categories, as well as GIS components (Green 2013, 309). The HERs role is a curatorial one, managing hundreds-of-thousands of similar documents – the administrative outputs of archaeological investigation in the commercial sector, and collectively representative of the heritage asset (Bradley 2012; 2006, 2).

An interesting fact to note, is how one particular archival body, augmenting the curatorial role of the HER - the Archaeology Data Service (or ADS), has reported 'unprecedented demand' for downloading grey literature documents (Barratt, Hardman & Poppy 2008, 38-9). Garnering a better understanding of why, and how these resources are utilised, will be the focus of the chapters 5 and 6 of this thesis. Coupled with the interpretative 'potential' of grey literature documents, which will be the main focus of this thesis, are the specialist material studies which also may draw heavily on particular elements of the reports. Issues arising with utilising grey literature resources (specifically the material reports) for specialist research remain a separate, though significant issue none-the-less.

It is not uncommon for subsequent reports and publications to arise from the commercial sector, as sites of particular interest, or significance may attract further opportunity to share findings, through both technical and non-technical means – such as journal articles and monographs (see Connah 2010; Lawson 1993, 156). However, these alternative, additional forms of written reporting are markedly different from grey literature,

in both their purpose, and persuasion – and therefore, unsurprisingly have not received the same level of scrutiny or consideration in this thesis, nor in any general discourse pertaining to the grey literature crisis.

Chapter 2: Setting out to make History: defining the archaeological ontology

'We should set out to make history' (Barrett 1988, 14).

On the surface this appears to be a gentle and even simple directive. However, closer consideration suggests the statement in fact has deep founded implications for the archaeological agenda. The statement (for me) has significant resonance: almost unperceivably it speaks of the potential and of the possibility of the archaeological endeavour. Barrett, with this very phrase, intimates dissatisfaction with the way things are, and the way things are done. What he then proceeds to advocate is a desire to advance an agenda that in essence is an uncomplicated, intellectual pursuit of historical (archaeological) knowledge and understanding. From the very first time I read this statement as an early student of the archaeological discipline its message has stayed with me: it has become a criterion against which I measure what I understand about my discipline, as well as my own practice and experiences, as both a student and a career archaeologist. Such a short, simple and thought-provoking statement has inspired my research and the proceeding thesis is representative of my pursuit to contemplate (and hopefully shape) an archaeological agenda that is equipped to meet the challenge of 'making history'. As archaeologists, I believe we find ourselves in a unique position, one where we have at our disposal the ability to confront and determine the possibilities of what that history can realistically be (see Jenkins 1991). All of what I have said above suggests that currently I am sceptical that the true pursuit of our discipline is not necessarily one which sets-out to make history. To begin to furnish this scepticism with evidence it will be the intention here to critically examine the existing, most basic disciplinary objective: what does archaeology purport to do?

I must state here and now this chapter is not destined to be a discussion about what archaeology is, but one about what archaeology does, as a means of moving the discussion towards a consideration of what (else) archaeology should be doing. It has become all too common an occurrence in archaeological literature to confuse a definition of archaeology with its main / key objective. I am not even certain at this juncture whether - what is the objective of our discipline? - is even the right topic upon which to frame the ensuing discussion. Perhaps it would be preferable to frame it as thus: what are archaeologists able to realistically confront, considering parameters which are relevant and achievable to a pre-defined ontology? In 1993 Norman Yoffee and Andrew Sherratt edited a volume titled *Archaeological Theory: Who sets the agenda?* The content of that text is, in this particular context, largely immaterial and its scope was arguably similar to other texts appearing at that time. However, the title of the publication speaks volumes about the direction of the archaeological agenda in recent decades, and the question raised resonates aptly with the focus of this thesis. It is fascinating to observe how the philosophical and theoretical posturing of archaeology's prominent personalities, in shaping an epistemological destination for the archaeological discipline continues

to take precedence over any ontological priority. Surely it would be simpler if our endeavour starts with an idea, a clear understanding of what it should be doing, and not, as increasingly has become the case, a particular theoretical perspective. Then that idea could be explored and developed through the ways in which we organise and direct our enquiries. So if we are 'making history', as Barrett (1998, 14) suggested we do, then our task would be to think through the possibilities and realities of that history (in any given context), rather than confirming or dismissing a particular perspective or *a priori* claim. Recent tendencies within the discipline, to prioritise perspective driven enquiry (the epistemology) has meant, in most cases, the underpinning idea (the ontology) has been overlooked and/ or taken for granted. Writing a quarter of a century after the publication of the Yoffee and Sherratt's text, I would like to propose a revision to the question posed in their title: the question now being - *Archaeology: <u>what</u> sets the agenda?* It will be the intention of the first section of this chapter to posit how at the heart of any enquiring, historical discipline should be the strength of an under-pinning ontology. It is my opinion that only through the strength of such an ontology can we truly confirm that we are setting out to make history.

Ontology as a concept, first needs to be clearly defined, before proceeding any further. Barrett and Fewster (2000, 26) establish the notion of an archaeological ontology as being the main objective of the discipline: the what; the thing(s) we should study. Ontology differs from methodology, or epistemology, as these address the theoretical and technical how(s) (Barrett and Fewster 2000). What an ontology should do is frame any methodological and epistemological aspects of the discipline, not define them. Any ontology should represent an underpinning objective, articulating something more meaningful and tangible than a mere statement of aspiration. In an archaeological context, ontological strategies can consider all the possibilities of past human life, all those interwoven threads of history that reside within and between spaces, times, people and things.

At the turn of the millennium Mizoguchi (2000, 19) called for the discipline to consider 'constructing a critical ontology of the discipline'. It is my initial intention, here, to explore whether there exists a consensus to what the archaeological ontology (or true objective) is, or whether indeed any form of considered or concise archaeological ontology exists. There is no capaciousness in my intentions, as it should be realistic to assume that there exists a consensus at the heart of the archaeological discipline; and that surely archaeologists (for the most part) agree on the most fundamental objective of their discipline. As uncomplicated as these statements are, the potential to reveal conflicting and/or misdirected ontologies exists. Whether the archaeological discipline achieves any perceived ontology (or stated objective) remains a totally separate issue, and will be treated thus in the thesis. Any subsequent chapters therefore will furthermore unpick what particular kind of objective(s) the archaeological discipline is presently placed to deliver.

The methodological approach proposed involves a critical study of a selection of texts purporting to introduce the concept of archaeology (at its aims). The selected texts are a representative sample of those considered key reading material for archaeological students and scholars.

Initial observations indicate how in archaeological literature, both past and present, any discussion of the disciplinary objective, surprisingly is frequently accorded with a mere casual reference. With the exception of a limited number of texts, the concept of ontology also receives limited discussion. Does this mean we, as archaeologists believe we are all in consensus about what archaeology does? That our main objective has become something we largely take-for-granted? It is perhaps not too presumptuous to say if you asked an archaeologist what the primary goal of their discipline was, they would undoubtedly refer to *achieving an understanding of the past* as part of their response. Archaeologists, by-in-large, in their day-to-day work remain faithful to their own specific interests, and therefore are likely to outline differing perspectives on how their particular understanding can be achieved, however maintaining a shared goal is seemingly assumed by a discipline that purports to study *the past*.

One would be forgiven for thinking just because a notion of consensus exists, as regards the most fundamental objective of discipline, that this is unchallengeable, and thus should remain unchanged. Also it would be unwise, at this juncture, to assume a consensus exists just because the agenda fails to address the issue in any significant detail. Let us for the moment assert the claim that we are all studying the past, are we not? This is actually a very significant question to pose. Of course archaeology's and archaeologists primary interest is the past, and I would posit few archaeologists would argue with this statement, though many may also agree with Barrett's (2006, 198) observation, that this is, in fact, a rather 'bland claim'. This somewhat nebulous term 'the past', is adopted all too frequently, as a means of defining the scope of our endeavours: its banality often overlooked. What the label 'the past' wholeheartedly omits, are the true intricacies and intimacies of human history: characteristics and stories which archaeology <u>can</u> (and should) help us conceptualise.

(There is an additional layer to this argument, that being the concept of the *archaeological record*, for many, this record offers a tangible and direct route to our understanding of the past. To avoid complicating the discussion here, by following two distinct threads I have chosen to deal with the concept of the archaeological

record separately in chapter 3, whereas here my intention is to prioritise establishing exactly what archaeology claims to do.)

It is not the intention to mislead the reader here, or seemingly close any opposing position down, therefore the discussion will present specific detail from the textual study undertaken in endorsement of the sequence of claims made above. The findings of the full textual study undertaken are summarised in *table 1*, and below is provided a list of the texts accessed to complete this study (chosen as a representative sample of likely go-to 'introductory' literature, present on many university reading lists).

- Archaeology (Bahn)
- The Cambridge Illustrated History of Archaeology (Bahn)
- In Pursuit of the Past (Binford)
- Extracting Meaning from the Past (Bintliff)
- A Companion to Archaeology (Bintliff ed.)
- Making Archaeology Happen (Carver)
- Material Evidence (Chapman & Wylie eds.)
- What Happened in History? (Childe)
- Digging up the past (Collis)
- Archaeology: the basics (Gamble)
- Doing Archaeology (Henson)
- The Archaeological Process (Hodder)
- Archaeology is a Brand! (Holtorf)
- Memory and Material Culture (Jones)
- The Languages of Archaeology (Joyce)
- The Past is a Foreign Country (Lowenthal)
- A Companion to Social Archaeology (Meskell & Preucel)
- Archaeology: theories, methods and practice (Renfrew)
- Archaeology is Rubbish (Robinson & Aston)
- Excavation (Roskams)
- The Archaeological Imagination (Shanks)
- Archaeology and Modernity (Thomas)
- Interpretative Archaeology (Tilley)
- Archaeology from the Earth (Wheeler)

Starting by offering a brief addendum to the ideas previously stated: most of the archaeological texts studied do not simply refer to the disciplinary objective as the *study of the past*. Rather, it has been observed how any reference to *the past* in archaeological texts is commonly preceded with a proliferation of anticipatory or aspirational verbs such as to understand, interpret, unearth, reveal, explain, investigate, evaluate, re-voice, respond, produce, generate, explore, construct, make sense, discover, experience, recover, describe, people. The use of such language is fascinating in itself: with each verb being anticipatory of a particular outcome; each setting up (whether consciously or unconsciously) an expectation of what is perceived as being achievable, and each establishing the role of the archaeologist in achieving the specified objective: albeit fleetingly. Perhaps somewhat regrettably, these statements have become the means of qualifying, and the

measure of quality of our current ambitions, as well as arguably providing unnecessary parameters and limitations (see Holtorf 2007, 103).

Subtle distinctions, noted in the language used, also appear to have direct implications on the resultant methodological and epistemological how, as well as presenting the potential to impinge upon the scope of the ontological what. However subtle the difference in these stated aspirations, when considered as a whole, as this undertaking has sought to do, they in fact represent deep polarisation in the discipline, and inadvertently create a clear divergence in our most fundamental disciplinary goals (Pinsky 1989, 90).

What the analysis further focused upon was a study of the language and inferences pertaining to the archaeological objective, derived from a series of texts, and grouped into a number of key perspectives. For expediency and ease of comparison the findings are presented in tabular form (see *table 1*). The analysis also identified inconsistencies and incompatibilities in the expressed objectives. Which were taken to be indicative of crucial points of difference amongst the archaeology community (from both legacy, and present work). The analysis has also helped highlight the level of awareness and rigour, when considering, or crafting an archaeological ontology.

Verbs used to describe 'objective' (grouped)	Associated school(s)-of-thought	Considered Implications and Inferences	Evidence of wider / established critique of specified objective(s)
to reveal, to discover, to uncover, to recover, to rediscover, to unearth.	Traditionalist Materialist (NB: potential legacy concepts from antiquarianism)	• Suggests the past has tangible, but concealed and/or dormant qualities. Also that the past has an inherent physical value. Artefacts seen as a 'black box' (Garrow 2012, 107). • Methodologically driven perspective, where the act of discovery is given heightened importance. Perpetuates belief that archaeologists fundamentally agree in a 'discoverable past' (Sherratt 1993, 119). • Indicative of a theoretical perspective where evidence = past. Material record represents a direct transcript of past. Disciplinary aim being to 'recover an agreed reality' (Bintliff 1988a, 6). Implies little or no ambiguity to evidence.	• Field observations become historical statements and objects qualifying, historical facts (Binford 2002). • Archaeological process becomes somehow commodified (Holtorf 2007). • Post-processualists later question whether the past is in fact discoverable (Lowenthal 1985). They began to realise materials alone did not constitute a discoverable reality (Johnson 1999). 'Evidence is not waiting in the ground to be revealed' (Roskams 2001, 36). • NB: symmetrical archaeology redefines an archaeological ontology that prioritises an obligation to things (Olsen et. al. 2012).
To explain, to describe, to re-describe, to produce, to generate, to construct, to reconstruct,	Processualism	• Archaeological process inevitably produces 'data that needs explanation' (Walker 1988). • Past becomes a product; a destination; qualified by process and methodology. Data thus serve as both historical statements, and the product of observations (Barrett 2006). • Aim of archaeology 'truthful reconstruction of what and why things happened and how life was' (Bintliff & Pearce 2011, 1). • Past perceived through explanations of analytical procedures. Results in a conceptualisation of the past which is exhaustible, finite and closed. Overall aim to explain 'what happened in history?' (Childe 1942).	• Indicative of a methodologically defined perspective, which establishes evidence as analytical objects (Thomas 2004a). • Through the act of inscription objects 'gain entry into the analytical domain' (Edgeworth 2003). • Past reducible to a series of qualifying statements (Thomas 2004b). • Theorise about the past, through language used to describe evidence (Barrett 1990). • 'Past facts by their very nature cannot be verified' (Lowenthal 1985, 187).
To evaluate,	Processualism	• Implies objectivity of process and measurability and/or testability of outcomes. Aim of archaeology is to 'observe-test-explain-understand' (Courbin 1988).	• Discourages uncertainty, as 'uncertainty makes us more anxious to validate things' (Lowenthal 1985, 191).

to validate, to model.	Systems-Theory Constructivism (Legacy carried over to commercial archaeology)	• Appropriate Q&A enables a model of the reality of the past to be built (Lewthwaite 1988). • Archaeologists generate the 'problem of the past' through creating archaeological data, which then requires validation (Binford 2002, 235).	• Results in restricted and restrictive categorisation of data to enable it to be comparable for testing / modelling. • Objective requires 'technical control over past' (Tilley 1989a).
To experience, to encounter, to respond to, to know about, to translate. to realise.	Phenomenological Theory	• Emphasises validity of a sensory perspective. • Prioritises our present experiences as a means of establishing both interpretation and understanding, as well as implying transferability and applicability of present experience to the past. • Experience provides the interpretative dynamic (Jones 2007). • Use of bodily metaphors as 'generative force' (Fowler 2000, 109), within which interpretations are framed. • No expectation of a 'univocal interpretation' (Staaf 2000, 136).	• Phenomenological theory is just one instance where theory and practice has been used to legitimise specific interests with regards ways of knowing about the past (Joyce 2002). • Led to a tendency to 'exaggerate the characteristics of things that interest us' (McCullagh 2004, 6) – in this instance the physicality of objects and features. • Archaeology has always necessitated 'confrontation with something material' (Joyce 2002, 100). The form that confrontation may take could be intellectual, rather than purely experiential.
To people, to re-voice	Agency Theory Socio-political Theory	• Response to re-integrate something which is deemed absent. Archaeology's role is to give a voice to what is mute (Henson 2012). • Approach suggests we should prioritise qualities of humanness in our perspectives of the past. In this instance archaeology attempts to become a socially perceptive discipline (Johnson 1999). • Enhances capacity and capabilities of archaeological study (and of archaeologists) – to be empathetic.	• Agency is just another means of furnishing a particular model (in this case sociological and ideological) with archaeological data (Bintliff 2011). • Historical narratives (their destiny and circumstances of their creation) are projections of sociological perspectives on a materialised form (Joyce 2002).
To interpret, to give meaning to, to understand, to investigate.	Post-Processualism Interpretative Archaeology Hermeneutics	• Emphasises role of archaeologist in the act of interpretation. Aim of archaeology now to 'obtain valid knowledge about the past' (Shennan 2004, 3). • Success measured by ability to 'fulfil principles of discourse' (Holtorf 2000). • Offers a less definite outcome to archaeological enquiries. Conclusions become more difficult to measure, they appear subjective and potentially diverse.	• The aim to understand the past is no longer wholly adequate (Hodder 1999). • 'Alternative pasts are not the same thing as our provisional and debateable understandings of a complex past. Alternative pasts are just sloppy thinking' (Barrett 2006, 203).

		Understanding is now preferred over explanation, as it is less definitive, with wider scope (Thomas 2004b). • Validates divergence – gives way to multiple pasts and multiples ways of knowing. • Approach can validate internalised as well as externalised processes.	

Table 1: Outline of the various stated objectives of the archaeological discipline, including a summary of the implications and critiques of those objectives.

My earlier claim, that in fact the contemplation and construction of an archaeological objective prioritises theoretical and methodological perspectives is demonstrable in the findings summarised and presented above (see *table 1*). The disciplinary objective(s) appear dislocated: those stated seemingly emphasise and legitimise an epistemological focus. Any given objective becomes both conditioned by, and a product of the expectations of a favoured theoretical perspective (Hamilton 2000) – but what any of the objectives outlined in the above table fail to do is deliver an ontology (agreed, or not). The analysis also revealed how there appears to be a direct causal relationship between operational frameworks, and conceptual frameworks (Pluciennik 2011): where presently operational methodologies set the parameters of any conceptual framework(s). Viewing the archaeological objective(s) this way implies our endeavours are merely an 'empiricist programme' (Barrett 2006, 208), where the success of achieving a stated objective, and resultant knowledge acquired is evaluated by the material contexts alone. In this instance any sense of disciplinary coherence is provided by archaeological methodology, and not the ontology, as it should be: to the extent that methodology becomes foundational to the enterprise of archaeology (McAnany & Hodder 2009). Though arguably the idea that coherence exists at all is potentially false (Pluciennik 2011). Prioritising the practice of fundamentally empiricist, materialist or in the case of post-processualism, sociological responsibilities, can only serve to enforce a particular set of value judgements upon the available evidence.

The processes and objectives outlined in the table above also appear epistemologically reciprocal – in that, how the relationship between materials and people in the past is theorised is made manifest, and subsequently perpetuated in how the relationship between archaeological enquiry and material evidence is perceived. Any underpinning objective establishes a taken-for-granted assumption that knowledge is either inherent in data, or in resultant explanations of that data: explanations set within epistemological parameters. In this instance the sole objective becomes finding a best-fit for data, as well as testing and/or confirming viewpoints or *a priori* claims. The past that we all seem to agree we are seeking to understand exists as explanatory structures (be they functional, structural or socially meaningful), imposed on material evidences. To use Chippendale's (1993) phrasing, sadly the routine of the trade has become our present ambition: and our present ambition, the routine of the trade. This reading implies a current causal link between methodology and epistemology, and the absence of an underpinning ontology. Surely how we frame and direct our enquiry should always be secondary to an ontology? As an ontology defines without imposing limits upon our expectations, desires, knowledge and outcomes: the very opposite to what is currently being espoused and achieved.

It has proven a useful and enlightening task, exploring the many ways archaeologists conceptualise and craft disciplinary objectives. The exercise has achieved an improved understanding as to how these objectives

change through the nuance of language. What has become clear, and what was the original purpose behind the analysis, is how the issue of ontology and any true consensus, as regards a fundamental disciplinary objective, remains markedly absent amongst much of the existing archaeological literature. The crucial transaction, involved in 'making history' as the analysis has shown, is made between how we conceptualise the past, and the present mechanisms of enquiry into that past. Defining a purposeful ontology has the potential to steer the trajectory of the discipline into a revised position. It is essential that we establish a foundational premise, for an archaeology fit for the 21st century. We must ask ourselves what do we hope to achieve? What is our primary objective? Answering these questions should allow us to gain a sense of disciplinary coherence, and enable us to direct our strategies, methodologies, and priorities.

There have been, of late, numerous calls for archaeologists to adopt a coherent (theoretical) framework, in an attempt to reconcile a perceivably fractious discipline (see Bintliff & Pearce 2011). However, this is not what is being advocated here. We should not aspire to seek neither an exclusive nor universal framework (see Pluccienik 2011, 39). It may be acknowledged how generalised or eclectic theoretical perspectives may give an illusion of disciplinary cohesion, but in fact they are more likely to result in the discipline taking a rather banal 'middle-ground'. The aim of this exploration has not been to seek to devise a glossy, aspirational statement lacking in substance or applicability. Rather what has been sought are agreed principles to enable the crafting of an ontology that acknowledges the potential and possibility in the circumstances through which we generate historical knowledge. A philosophised ontology that recognises how archaeology can offer a unique, particular way of understanding the world and the unfolding journeys of human history and the traditions of occupancy of space and time (see Barrett 2006). Ultimately the impetus for crafting an ontology should arise from a desire to clarify the archaeological endeavour, as well as honing both skills and practices in establishing perspectives about the trajectories and textures of human life and human history. Establishing these agreed principles, and crafting a purposeful archaeological ontology, should be achievable without the need to adhere to a particular theoretical or epistemological stance (see Bintliff 2011).

Chapter 3: A historical and critical assessment of the nature of our interventions with the physical and material past.

3.1 - Introduction

To further advance and explore claims that inherent methodological limitations have a causal link with the concept of grey literature, the following two chapters will adopt a critical stance. Aiming to review just how archaeological methodology has been conditioned by particular perspectives and standards. This chapter is critical and controversial in its challenge to accepted disciplinary wisdom.

3.2 - The Idea of Past as Record (an introduction)

The archaeological discipline presents an irreconcilable position: on the one-hand the possibility of exploring the past generates wonder and excitement in anyone daring to imagine what the past was once like, however on the other-hand the pasts we write leave many feeling disappointed, and thus we remain somewhat detached from the histories we so desire to understand. Similar concerns have previously been raised (see Barrett 1995; Jones 2002), but to date have resulted in insufficient responses from the archaeological community. The reasons for these current failings largely centre on inadequacies in the present ontological and consequently on the epistemological focus of our endeavours. Chapter 2 has already demonstrated an absence of ontological rigour, or coherence in the ways archaeologists describe and position their key, disciplinary objectives. To allow an exploration of this rather bold claim in more detail, the intention of this chapter will be to deconstruct what currently serves as the basic tenet of archaeological enquiry, the evidence of **past as a record**. This conceptual framework underpins our investigations, shapes both theory and practice, and has wide-ranging implications to how an understanding of the past is constructed. It will be postulated how our unquestioning acceptance of this basic tenet – past as record - controls and confines the nature of both our investigations and present discourses.

A typical point of agreement amongst practitioners is that the focus of their enquiry is a material record, something physical which is considered to be a product of the past, and therefore representative of what that past was like. This acceptance leads archaeologists to consider that one of their clear goals is to access, characterise and explain this record. The central positioning of this objective has consequently resulted in the extensive refinement in archaeological practice over recent decades. However, establishing just exactly what this record represents (an explanation which is more specific than the rather nebulous notion of 'the past'), is something which practitioners continue to debate. A lengthy review of the nuances and implications of past as record was addressed over thirty years ago by Patrik (1985), and much of her work provides a clear

reference point for this discussion here, as the overall aim of this chapter is to seek to address her closing question: 'is the idea of record appropriate to the evidence at all?' (Patrik 1985, 56).

The idea of the past as a producer of a material record is a concept which is arguably seated firmly in our present, and relates first and foremost to how archaeologists currently conceptualise and justify the nature of their engagement with physical evidence. Loosely established as the **archaeological record** (itself a rather vague model), this device (considered by some as heuristic and/or metaphysical) (see Jones 2002, 11; Patrik 1985, 31) enables physical evidence to span the temporal chasm between the past, the time at which the record was produced, and the present, the time in which the record is being studied. Archaeologists hold largely in consensus the idea that this record contains material by-products, often perceived as statements of and from a past, which record the events that have produced it. The idea of engaging with the **past as a record** has a number of methodological and investigative implications, and a fuller appraisal of practical considerations will follow this initial discussion.

3.3 - Unpicking the Concept of Past as Record

It is necessary first however, to consider the term **record**. The concept of record implies it is a product, which has the potential to represent both an object and a subject. Accepting the record as being a product, suggests we assume it has a **producer** (or an author) a **reader**, and a **reading**.

Principally, the past is acknowledged as the **producer** of the record. The processual concept of a fossil record implies it was produced by the ebb and flow of the different mechanisms in the passing of time, strictly a physical representation of the mechanisms of its production. In contrast the post-processual concept of a textual record implies the record is the result of intentional human authorship (Patrik 1985). There is arguably, however, a third producer, this being the archaeologist, who conceptualises the record, brings it into existence, and imbues it with present-day meaning, through practical engagement. Consequently, current archaeological field investigations involve an additional layer of 'record' authorship, and through a particular reading archaeologists become a producer, transcribing of physical material into data (see Edgeworth 2003; Roskams 2001).

As with the idea of producer(s) of the record, it can be demonstrated that there are multiple **readers** too. If we are to accept the premise of past as textual record (as favoured by many post-processualists), in doing so we acknowledge that the record was initially created within a context of meaning that could be read in the

past. The purpose of the construction of this record was to encode signs and symbols in a material form to enable the creation, maintenance or transformation of particular social and political conditions. However, as archaeologists we also take on the role of a reader. Perceivably there is a dual structure to this role, as we find ourselves being a presently situated reader, disassembling the constituent parts of the archaeological record to undertake a disembodied reading (Edgeworth 2003), then we attempt to situate ourselves as a past reader, reassembling those constituent parts to enable a knowledgeable reading.

The final consequence of perceiving past as record, is that of the **reading** itself. We as archaeologists, currently task ourselves with reading the archaeological record, though disagree about whether the possible reading is passive and static. In the context of a fossil record, typically the present material reality is described and catalogued with the aim of linking it to the processes of its formation. Whereas a reading may be more fluid, context-dependant and open to challenge when derived from the concept of a textual record. In the latter instance, any inference regarding a past reading of the record is believed to be inherent in the material elements of that record. However, both instances rely on information, asserted to be from and of the past, and transmitted via a material, in-ground record to the observer (or reader). With the concept of the fossil record this transmission of information is mechanical, and for the textual record this transmission is open to ambiguity.

As a consequence of subscribing to the concept of past as record, investigations concern themselves with seeking causal explanations of its creation. In essence we seek an answer to the question - what has produced the record? - and thus, have developed and continue to perpetuate our role, as both producer and reader. As a result, archaeologists have become integral to its reading. We believe we can achieve an understanding of the past, through our in-field observations and, any subsequent discussion of the character of the record, in doing so we maintain a conviction that we are observing and discussing the very nature of the past (whether this action produces a final reading or one open to re-interpretation). In current archaeological practice specific categories of evidence, categories that help us characterise the record, have become our principal frames of reference.

This discussion is by no means advocating that we discredit the role of material evidence as a means of accessing particular discourses regarding the nature of the past, rather that we consider alternatives to the concept of a *material record*. The idea of past as record, means that we front-load our investigations with theories of retrieval and characterisation, and our research into, and explanations of the past, are constructed in terms of a production process, and current practices and methodologies are integral to this

process. Ultimately we strive to understand what kinds of past(s) created the record we encounter, believing that a particular reading of the record will reveal these pasts. Subsequently, we then write these pasts with same the language and technique we use to give the record archaeological meaning – mechanised, technical, descriptive (Barrett 1990, 45). Querying the central tenet of past as record, leaves us needing to establish a more appropriate and secure connection between material 'evidence and what it is evidence of' (Patrik 1985, 56). A considered alternative might be to attempt is to front-load our investigations with theories of 'historical enquiry', as advocated by Barrett (1995, 9). This would involve focusing research and explanations on the possibilities derived from inhabiting and constructing life-paths, which had access to particular material conditions, and positioning these within a human temporal scale. As a consequence, rather than subscribing to a past which is recorded and observable, we would subscribe to a past which is created, challenged, constrained and transformed in the contexts of particular kinds of material worlds. Material evidence would in this instance represent 'embodied capabilities', part of the enabling architectures of past lives, rather than the past itself (Stones 2005, 18). As enquirers we would be able to access multiple perspectives regarding what constituted life in the past by re-inhabiting these material worlds, and considering them within frames of reference relevant to past conditions, as opposed to relying upon frames of reference being conditioned by present methodological practices (Stones 2005).

3.4 - How have we built this current paradigm?

In the history of the archaeological discipline, arguably a significant challenge has been to establish objectivity and transparency in the standards of practice within the field. Consensus about the physical and empirical nature of the 'record', the current object of our enquiries, has driven the development of a set of standardised techniques, in order to both access and assess the constitution of this record. Most practitioners working in archaeology today, are likely to accept the following three truths:

1) the aim of the field experience should be to observe and catalogue material residues (which record the remains of a past we seek to understand) and recover these evidences in categories which define their physical character;

2) both observations and recovered evidences have particular characteristics which allow them to be transcribed into data; and

3) the idea of the past is formed out of our subsequent engagement and analysis of these data.

Archaeology today has arguably become a discipline with an inherited pre-occupation for investigating materiality (see Thomas 2004a). Methodological developments seen within the discipline are suggestive of a prioritisation in securing a means of accessing and transcribing the physical record, in an attempt to make sense of it. As a result, the stages of archaeology enquiry (from field experience to transcription to materials

into data, to the interpretation of data as evidence) appear to have been shaped by a reductionist methodology. What is meant by this is, it is clear archaeologists have long sought to reduce the physical record, encountered in the field into a format conductive to their present day considerations. The past as record becomes wholly recognisable as sets of standardised data sets. These standardised representations then become the currency through which ideas about the past are communicated. Leading to suggest how present methodology has had lasting implications for the way we think about the past. For the critics of commercial field programmes, such considerations seem amplified, given the additional constraints imposed by the development sector. What follows here, is an exploration of how the discipline has come to favour such methodologies, by considering what current and legacy concepts have helped shape the ways we experience, understand and communicate the past.

3.5 - A historiographical review of the archaeological field experience

On most archaeological excavations taking place in England today, the field experience will differ very little. This may seem surprising to hear, as most sites have the potential to offer a unique experience of the evidences of, and from the past. However, archaeological fieldwork is structured in a very particular way, in that is adheres to very standardised procedures. The benefit of this standardisation, means procedures are transferable from site to site, employee to employee. Though arguably they somewhat overshadow the expectation of discovery, and may even stifle any potential ambiguity that the encountered record may reveal. Procedural norms are however, important because for many they establish the basis for practiced objectivity. This is due to archaeologists continuing to hold in consensus certain expectations about what can be achieved through excavation, and assumptions about the existence of a discoverable past (Sherratt 1993). Standards of field practice in England and their refinement can be found referenced in any of a number of field manuals published over a period of around 40 years (for example see Barker 1977; MoLAS 1994 and Roskams 2001).

The technique of excavation is guided by a precise methodology, which has been developed through an appreciation of what the record is, and to some extent how it is believed to have been formed. The evolution of field, excavation technique, to craft and achieve such precision, can be attributed to the work of a number of influential scholars, who each built upon the work of those who came before them. A common objective of their work was to observe and recover particular material residues, and through those residues, explore the nature of the material past. The nature and development of archaeological excavation techniques, through the work of Pitt Rivers, Wheeler, Biddle and Harris will form the focus of this section. The discussion presented here is not meant to serve as a full historical account of the evolution of archaeological field technique, nor as a biographical account of the activities of these individuals. Such information can be found

in a range of publications (see, in particular - Bahn (ed.) 1996; Bowden 1991; Daniel 1967; Daniel 1975; Hawkes 1982; Marsden 1984 and Thompson 1977). Rather the intention is to explore the key principles that guided their work and consequently, shaped the value, purpose, and ultimately the practice of archaeological field work, which we continue to largely adhere to today.

3.5.1 - Pitt Rivers at the Wor Barrow

The birth of modern excavation technique, and scientific enquiry has been retrospectively attributed to the work of Pitt Rivers (see Bowden 1991). Though perhaps this accolade is a little too appreciative of his legacy. However, it can be acknowledged how Pitt Rivers (or more accurately his field assistants) established significant objectives in archaeological field technique. The man himself was outspoken in calling for 'greater precision and detail' in field investigations, acknowledging the privileged position of the excavator, in having fleeting access to the discoveries held within relic soils, and therefore recognising the need to record the smallest detail about these discoveries (Pitt Rivers 1898, 28). For Pitt Rivers archaeological excavation had a dual purpose: firstly, it served as a means of thorough examination of relic soils and secondly, it provided opportunities for materials and particular data to be collected and / or recorded. This said, the true nature of his field method is not wholly apparent from a reading his field publications (Bradley 1973), and on-occasion his principles and practice appear less than coherent, to a modern reader. Pitt Rivers seemingly would detail the particulars of his field procedure when they bolstered his interpretations, preferring this approach to presenting a complete picture of his field practices and experiences. Greater detail of the field methodologies employed on Pitt Rivers' sites has been revealed through a more recent study of the Gray notebooks (see Bradley 1973). As these contain diarised reports and field drawings, which were not included in Pitt Rivers' final publication. One feature of Pitt Rivers' technique was the favouring of on-site division of tasks, a format not too dissimilar from modern-day excavations. Where field assistants, draughtsmen and surveyors, worked together with a gang of agricultural labourers who carried out the bulk of the excavations (see Bowden 1991; Bradley 1973). We can infer from this that Pitt Rivers assigned staff to what he considered to be the key on-site tasks: the supervision and undertaking of the excavation, and the compilation of record, through survey and illustration. These field tasks thus formed the framework for what Wheeler (1950, 124) later referred to as Pitt Rivers' 'minimum standard of archaeology'.

In order to explore Pitt Rivers' field methodology in closer detail I have decided to focus on the more familiar investigations of Wor Barrow, on his inherited estate of Cranborne Chase, Dorset. Pitt Rivers and his field team investigated Wor Barrow during 1893 and 1894, choosing to excavate the entirety of the site (Marsden 1984; Wheeler 1954). The decision was made to excavate what was judged to be the two main structural / architectural components of the site separately, starting with the surrounding ditch in 1893, and returning

to examine the barrow mound in 1894 (Pitt Rivers 1898). Interestingly the Gray notebooks reveal how the ditch-fill was completely removed within a month, and the barrow mound excavated within six weeks (Bradley 1973). Despite records which state how the excavations of these two features were approached in different ways, both endeavours similarly concluded in: 1) the total excavation of the structures; 2) the retrieval of any materials encountered, which were recognisable and deemed culturally significant; 3) the compilation of a list of measurements pinpointing the depth of the materials observed and recovered within the structures; and 4) loosely formed descriptions of any depositional changes observed (largely indicated by changes in colour and texture). And although the published findings from the excavations of Wor Barrow make reference to both, a basic depositional sequence and artefact distribution, Pitt Rivers' primary focus in his analysis was clearly the classification of any artefactual assemblages. Pitt Rivers believed that a carefully executed and thorough field investigation could enable him to gather the evidence necessary to establish a complete picture of the evolution of material culture (Bradley 1991). Therefore, the key objective of his field investigations became the sequences of fragmented material culture, seen distributed and subsequently recovered from the ancient soils being examined. Not only did these sequences of artefacts reveal the evolution of material culture, they also came to represent the site's 'temporal succession' (Thomas 2004a, 159-160). The Gray notebooks reveal how accurate records of layers and sections were also made during the excavations (see Bradley 1973), though Pitt Rivers chose to extrapolate from these observations and records, sufficient information to create his Average Sections. Seemingly Pitt Rivers was less interested in attributing material culture to particular depositional contexts. For example, the nature of the physical deposits within the Wor Barrow ditch and their relationship to the materials recovered, were only addressed when Pitt Rivers was faced with the quandary of discovering materials from the same date originating from vastly differing depths within the ditch (Bowden 1991). Then, and only then did Pitt Rivers factor-in the relevance of the natural silting process, and explain how this may have accounted for the distribution of accumulated materials.

It would be all too easy to focus upon the simplicity, and oft misguidedness of Pitt Rivers' field technique, in comparison with advanced, modern field practice, however there are clear areas of significant continuity which require our attention. These are aptly expressed by Adams: who states how the excavator is not only responsible for 'interpreting a fleeting scenario on the spot' but is also responsible for 'creating many of the characteristics of that scenario in the first place' (Adams 2000, 97). Simply put, Pitt Rivers anticipated his excavations would reveal an accumulation of materials, which could in-turn explain, and evidence a protracted cultural sequence. Therefore, priority in the field endeavour was directed towards observing and recording details regarding the nature and position of recovered materials. Only then, when retrieved in tandem, could they collectively provide an explanation of chronologically-attributable change, which Pitt

Rivers sought to establish. Though modern techniques appear more precise and the division of tasks greater, arguably the results of the field endeavour seek to elicit a similar type of explanation.

3.5.2 - Wheeler at Maiden Castle

The expectation of what these distinctive / representative in-ground observations meant, and how field procedure could best encounter, recover and record these distinctions, was further transformed by Mortimer Wheeler. Who famously deployed the concept of stratigraphy (originally derived from Geology) as his key methodological tool in the field (see Chadha 2005). Wheeler (1954, 215) believed 'the grammar of the archaeological subject' was recoverable through precise excavation conditions. The 'grammar' he spoke of was the individual components of the site: separate entities which enabled the site to be understood as a 'matter of sequence' (Thomas 2004a, 160). Consequently, Wheeler spent his field career refining a precise and systematised field methodology, one he believed, was best placed to encounter, observe and acquire the necessary knowledge needed to understand the individual components of a given site. For Wheeler it was also crucial for his excavation technique to be one which could be closely replicated, on any site, of any period (Wheeler 1954). For that he sought inspiration in the key principles originally expressed by Pitt Rivers: to seek precision in technique, in order to secure an explainable sequence for material debris (Wheeler 1954). Where Wheeler clearly differed in approach from Pitt Rivers is the importance he placed upon capturing and understanding depositional sequencing. Quoting Wheeler (1954, 40) directly, he stated the task of any excavator was 'to secure, beyond doubt, the orderly succession of the vestiges with which he deals'. This indicates it was no longer sufficient to rely upon artefacts alone to provide an explanation of a chronological / cultural sequence; the relic soils themselves became equally important evidences, which, when considered according to stratigraphic principles, could permit the establishment of a secure, and potentially datable sequence. Significantly, alongside this methodological development came a crucial conceptual shift: the past was envisaged as a 'chain of acts', which could be evidenced through sequential formation processes, attributed to the fossil record (Thomas 2004a, 161).

Focusing upon the excavations of Maiden Castle, in Dorset, during the 1930s will allow a fuller exploration of Wheeler's values and techniques. Detailed in the publication of his excavations at Maiden Castle, are Wheeler's main objectives for his field investigations:

1) 'to investigate the structural history of the great fortifications (of Maiden Castle) which are now the distinctive feature of the site;

2) to identify and correlate the associate cultures; and

3) to explore the possibility of recovering some part of the town plan' (Wheeler 1943, 3-4).

Although both the language used and the generalised focus of these objectives seem rather antiquated today, it is important to note how Wheeler felt assured that his field experience, and proposed technique would enable him to meet-out these objectives. Even today, investigative endeavours can be undertaken without setting measurable and achievable objectives, and firm assurance in field technique and standardised lines, continue to ensure such objectives can be comfortably met.

Wheeler aimed to excavate Maiden Castle with meticulous detail, and he placed great emphasis on observing the vertical stratigraphic sequences. To enable him to achieve this Wheeler (1954) held the observation and recording of the archaeological section in the highest regard, hence employing a combination of box-grid and trenching excavation strategies. Wheeler paid particular attention to the number and type of deposits evident in the exposed sections, and he expressed these observations, both through descriptions and illustrations of deposits. He also took great pains to note the location of material debris within each individual deposit. Collectively, the stratigraphic and material evidence enabled Wheeler to conceptualise and explain a temporal sequence for the site. For Wheeler, the deposits (or strata) he encountered during the excavation process were treated as discrete units of evidence, which when appreciated in sequence, both described and defined the vertical spatiality and chronology of the site's constructional history. The stratum also represented containers of cultural materials and because of this perception Wheeler found himself able to also articulate a cultural history of the site.

Wheeler was, however, forthright in his decision not to accord everything he encountered with the same value. Rather he believed the value of individual observations was only realised when he could link them directly to the historical explanation he wished to write: an explanation which sat within the unaltered confines of his initial objectives (as described above). Wheeler's logic was to describe an event-based sequence to the site's history, which he was able to define both chronologically and culturally by the discoveries he made in the field. In this achievement, the recovery of evidences, and the representation of those evidences in terms of stratigraphic sequences, permeated beyond the methodologies he employed in the field, and entered the textual (interpretative) domain. Supporting Wheeler's technique was the development of a language of stratigraphy, which he used in the field, but which also provided a direct means of explaining the structural history of the site. Simply put, how Wheeler conceptualised the in-ground record was also how he conceptualised the past: a sequential build-up of deposits. The work of Wheeler established a future for the archaeological discipline, which was firmly set upon the path of framing both understanding and explanation of the past, facilitated through the nature of technical practice. In addition, the premise of a past which produces a recoverable record, and through a detailed characterisation of that record any field

investigator could precisely define the nature of the past which created it, also gained currency, and permanency within archaeological fieldwork.

3.5.3 - Biddle and Harris at Winchester

Though Wheeler drew upon the potential of stratigraphy as a means of making sense of vertically imposed relic soils in exposed sections, a more extensive application of stratigraphic theory can be attributed to the work of Martin Biddle, who excavated at Winchester from the late 1960s, up until the 1980s. Biddle (1984) was one of the first practitioners to recognise how stratigraphy could not only give a comprehensive understanding of the chronological sequence of the material record, but also it could also help contextualise the extent of intra-site relationships (both spatially and chronologically). Working in urban Winchester, under very particular conditions, Biddle sought to establish field procedures that facilitated the creation of a precise replacement data record (Biddle 1984). The field technique he developed at Winchester became known as 'single context excavation'. Biddle believed dissecting an archaeological site, context by context, gave excavators the best opportunity to observe, and more importantly record, the characteristics of the site's constituent parts: namely the stratigraphic units. Stratigraphic units were deemed to be 'free-standing entities', component parts of a discoverable past, to be understood in sequence (Thomas 2004a, 160). Stratigraphic excavation offered an empirical reassurance; strata had certain characteristics and could be distinguished from each other by their visual and textural qualities. These materialised and sequential traces of the past were something which could be efficiently disassembled in the field, translated into detailed written and illustrative records, and reassembled, to form a composite understanding at a much later date.

Biddle believed the nature of encountered, and recorded materials should dictate what strategy was subsequently employed on-site (Biddle & Kjolbye-Biddle 1969). Such flexible field objectives responded to where best, and what, to excavate, but never truly dictated how to excavate. This approach relied heavily upon the intuition of the excavators to react according to whatever was encountered, and was initiated long before the techniques of what is now known as evaluation were perfected. An excavator's skill became their ability to expose and observe individual strata, untangling their interconnecting and overlapping forms, through observing changes in their characteristics. It was also crucial for excavators to aspire to approach their interactions with the material record with a level of objectivity. All aspects of the material record, now conceptualised through stratigraphic theory, were to be acknowledged and treated equally (unlike the approach advocated by Pitt Rivers). The skill required to establish the significance of any individual component parts and formulate any resultant interpretation was deferred to a post-excavation stage, a legacy which remains largely the case today. A pen portrait of Biddle's ideal excavator emerges though the

writing of one of his contemporaries, Barker, as presented in his field manual, published in 1977, and paraphrased below.

> The excavator is seen as a multi-skilled technician, undertaking strategic earth removal, distinguishing the stratigraphic record, retrieving data via numerous (written, pictorial and illustrative) mediums, whilst maintaining neutrality and being able to apply these skills to any site, anywhere and from any period
>
> (Barker 1977).

Upon reflection, however, the field experience of the excavator must have been curtailed, somewhat by the conceptualisation of what the record represented, the technique by which they intervened with that record, the categories and vocabulary they were instructed to apply to their observations, and resultant descriptions. Perhaps limitations not too dissimilar to those associated with present day field work.

Biddle, like his predecessors, saw value in considering the appearance and form of individual archaeological features. Working on an urban site, Biddle was confronted with what we now recognise as robber trench features, and he acknowledged that if observed closely, these materially represented events could resolve questions pertaining to both the constructional and robbing sequence of a site (Biddle & Kjolbye-Biddle 1969). Subsequently, he published a joint paper, with his wife, on how this might be practically achieved - requiring the excavator to visually clarify the relationship between both the inter-cutting and overlapping deposits (Biddle & Kjolbye-Biddle 1969). As argued above, Biddle's priority was to reveal and observe detail pertaining to a temporal sequence, and significantly for the progression and refinement of the archaeological technique, he recognised that the act of creating a structural feature was itself a part of the sequence of the site. This is what today we recognise as the archaeological interface (the cut), and although Biddle observed a number of these interfaces on-site, they were not to be accorded with the same value as the depositional strata, to which he assigned context numbers. It was through Harris' retrospective interrogation of Biddle's stratigraphic sequence from Winchester, that the true value of the archaeological interface was established.

Harris (1975) tasked himself with attempting to re-assemble a relative sequence of individual strata from the records Biddle made on-site. Remember, Biddle unquestioningly expected this to be possible, through the very precise and reconstructable nature of stratigraphic excavation and recording. However, Harris found himself unable to fully achieve an explanatory sequence without according interfaces equal weighting as deposits or layers. Harris recognised the interface as a significant act of production, which had been repeatedly made in the past, and which both predated and contextualised any subsequent depositional sequence (Harris 1975). As a result, Harris assigned the interface a numerical value equal to those Biddle had assigned to deposits and layers. From this more comprehensive appreciation of the stratigraphic ordering of

the site, Harris constructed what he termed his Harris-Winchester Matrix (see Harris 1975). The matrix not only diagrammatically rebuilt the structural sequence of the site, from the strata-defined units, it also clarified more complex temporal dimensions, beyond those represented by a section or plan drawing (Harris 1975).

Archaeological field experience now not only focused upon observing and establishing the descriptive characteristics of individual strata, but also it established causal relationships between strata. The (now titled) Harris matrix not only symbolised a conceptual appreciation of the structure of the in-ground, material record, but it also encapsulated the very structure of the past (Chadwick 1997). The matrix, which Harris initially created as an interpretative tool, was subsequently used to feed-back into archaeological field technique (Chadwick 1997), resulting in the expansion of the capabilities of stratigraphic excavation, in its role of establishing an appreciation of all the discrete units that collectively represented the material record, from which an approximation of the past could then be constructed (Harris 1975). A common framework for standards and expectations of information recovery was subsequently provided by pre-prepared contexts sheet templates, containing universally applicable prompts and a blank matrix-framework (Harris 1989). This secured the position of future field enquiry as a decision-making process, to be based on the empirical characteristics of individual strata (Biddle & Kjolbye-Biddle 1969).

3.5.4 - MoLAS and the Development of Archaeological Standards

Rescue archaeology and commercially-funded field excavations have also had a direct impact on the nature of archaeological field practice. Many have argued how field enquiry today is as much a product of the pressures of project management and the desire for professional standards, as it is of stratigraphic methodology (see McAdam 1996; Spence 1993). A rapid refinement of standards in field technique followed the work of Biddle and Harris, with the publication of the first edition of the MoLAS field manual in 1980. MoLAS (1994) championed a tried-and-tested set of formulae, and defined how the encountered remains should be recovered in the sequence by which excavators perceived it had been produced. This technique kept the stratigraphic sequence as the central focus of the field experience. The archaeology encountered was easily and simply reduced down to an ordered sequence of data that could be described, quantified and categorized, through the use of the checklist of universal descriptors and conventions included in the manual. Excavation became largely focused upon making records: collecting sufficient data from a site to be able to preserve it in a recorded form, and it seemed how the implication of interpretation taking a backseat became of secondary consequence. The tasks of the excavator became defined as:

1) establishing the position and relationship of strata to each other and to archaeological features;

2) establishing how a feature and / or strata had been deposited / formed;

3) forming a suitable interpretation (fit into accepted categories of form / nature) and;

4) extracting datable evidence

(MoLAS 1994).

By ensuring field enquiries were restricted to instructive processes such as those espoused by MoLAS, any understanding of the past arguably also remained constrained by the spatial, material and chronological attributes of a site. Confirming the view of **past as record** was now achieved through a carefully enacted sequence of methodological undertakings. Field work conceptualised past as record as a series of material entities, which could be pulled-apart and stripped back to their component parts, effectively 'exploded' (Jones 2002, 42). The multitude of entities that formed the record became objects with a dual significance, on the one hand they became objects which reflected our present day investigative capabilities, and on the other hand, if handled objectively they retained the integrity, and thus the essence of the past(s) from which they originated.

The legacy of such practice implies that practitioners now accept how the point of discovery (the point at which they intervene with the material record) is NOT the point at which we construct the past. Rather it is the point at which we establish a link to the past through our present terms. The development of the field experience as described above, appears to have gradually become less about encounters with a unique past, and more about the performance of observation, intervention, recovery and recording of material / data / evidence. When we excavate we make pre-determined judgements on the character and structure of data, and its relevance. Arguably these judgements have affected the very nature of the tasks undertaken during field enquiry, the way we report upon and interpret the findings of excavations and inevitably the way we think about the past. It is misguided to think that field methodology does not dictate the kinds of past archaeologists are capable of constructing. Field methodologies largely remain guided by theories that pertain to the formation and structure of the material record (see Schiffer 1987; Harris 1989) and these are not necessarily adequate, nor commensurate theories about the past. Roskams argues that 'discoveries do not take place with the trowel in hand … but afterwards' (2001, 270). It is possible to challenge this claim, if we reconsider how the past may have the potential to be created out of our field experiences, and perhaps by allowing our investigative and interpretative agenda to start and end with the decisions made in the field.

3.6 - The Conversion of In-Ground Record to Textual Transcription

Previously, the focus of this chapter has been the material record, and defining the circumstances as to how it has become the object of our field enquiry and a body of evidence to be encountered, taken to constitute physical evidences produced in, and therefore believed to be recording particular aspects of, the past. And how out of our encounters with this material, in-ground record we create a transcribed record, something which serves as a replacement, and thus the new focus of our studies. To be more direct, how we conceptualise and access the in-ground record sets-up an agenda where the formation of a transcribed record becomes a necessary objective. Archaeologists have developed a secure means of capturing patterns observed and experienced from the in-ground record, in a representative record form, and this has served to assist in explaining how these patterns have been produced. The majority of time spent in the field is spent compiling this representative, transcribed record, and the necessity of record production has consequently shaped the very nature of our field interventions. The implications of the importance placed on the creation of such as record has led some to argue that practical archaeological enquiry has become little more than 'recording procedure' (Andrews, Barrett & Lewis 2000, 527).

Excavators working in the field today, would be easily able to explain the inherent value of the formation of a transcribed record, and such explanations would likely to explore concepts pertaining to a commitment to preservation-by-record, the replacement of a physical record with one comprising of data. However, field practitioners perhaps may be able to explain the value in the complexities of detail documented. Please do not consider this statement as a slur on the capabilities nor professionalism of current field technicians. It is plausible, that the requirement to create a descriptive record is so deep-seated within archaeological practice, that it is rarely open to challenge: it is routinized practice, often undertaken without question, or necessarily thought (see Andrews, Barrett & Lewis 2000; Carver 2011). If this is indeed the case how can we begin to approach a critical assessment of something which has become so central to our practice and enquiry? What are the implications if our field enquiry remains preoccupied with the authorship of a record, through our reading of another record?

This last section of chapter 3 serves to evaluate the purpose and adequacy of the transcribed record. By considering the implications of viewing and constructing the past through this representative record. The discussion will seek to explore the reasons why archaeologists have sought to develop ways of formally transcribing the information, and materials encountered and observed in the in-ground record. It will also consider how the nature and content of this transcribed record impacts upon how we construct our views of the past. Supporting the claim that the current scope of archaeological enquiry, remains both defined and constrained by the parameters of the transcribed record.

In the preceding discussion, it has already been outlined how many practitioners subscribe to the notion that excavation gives them fleeting access to an in-ground record, a record that is directly attributed to the past, and one which is considered to be a resource finite in its character, and therefore potentially at risk. Barker was one of a number of archaeologists who openly acknowledged how field enquiry was, in his words, the 'unrepeatable experiment' (Barker 1977, 12). Therefore, not only did field strategies require purposeful actions, and secure field observations, but also a replacement / representative record had to be generated, one which objectively recorded the results of field enquiries. The rise of commercially funded archaeology in recent decades has contributed further to our reliance on the formation of an archival record. PPG16 established guidance on how if the archaeological resource (the fossil record) is unable to be preserved *in-situ* it should take an alternative archival form (ODPM 1990). Thus, the transcribed record has become a means by which we can adequately mitigate against the potential loss of the heritage resource and effectively manage our heritage assets. This is possible because many practitioners subscribe to the belief that the transcribed record stands as a representation of the site, albeit in an alternative format (Jones 2002). NB: further exploration of the responses to heritage threats will be covered in chapter 4.

Barker (1977) believed the descriptive record preserved the very fabric of the site and from this record the site could effectively be reconstructed. Such a philosophy has impacted hugely upon technical standards, as well as experiences in the field: the task of archaeologists is viewed, by many, as characterising and formally recording the in-ground record. In order to unpick this claim further the following considerations will be made:

1) exactly what do archaeologists believe the transcribed record represents?

2) exactly how it is produced?

3) what does it consist of?

4) how has the nature of archaeological enquiry today has become reliant upon the existence of the transcribed record?

If we are to accept the findings of the earlier presented historiography – which demonstrated increasing concern with developing and perfecting methodologies which maximised the potential of securing an understanding of the in-ground record, then it would not seem as step too far to believe how field practitioners are also largely in consensus about what the in-ground record constitutes. As explored earlier in the chapter, the theory of stratigraphy has shaped, and continues to shape the ways excavators are able to deconstruct sequences evident in the in-ground record. Specifically, the theory enables them to conceptualise the in-ground record as a series of superimposed, discrete units, each having particular

characteristics which are both empirical and definable. The introduction of standardised context recording has further facilitated the translation of encountered and observed physical entities into detailed descriptions and illustrations, serving to define them in terms of their material, spatial and chronological forms. Roskams (2001) claims the transcribed record is produced through processes of negotiation and active transformation. Rather than being an objective replacement of the in-ground record, as claimed by Barker (1977), the transcribed record is now seen to represent a transformation of empirical facts into data. Only made possible by technical field strategies which recognise and adhere to pre-arranged structures and codes (Roskams 2001). This implies that the parameters of the transcribed record are 'defined before they are experienced' (Carver 1990, 47). These parameters – or codes and categories – inform practitioners as to how best to annotate the physical and empirical realities of the in-ground record (Andrews, Barrett & Lewis 2000). Another observation to make is how these parameters have comparative characteristics, allowing both the process of transcription to be compatible and applicable to other evidence from other sites (Roskams 2001). And for any resultant record to be compared with those from other sites (something deemed necessary for a professionally evolving discipline) (see Binford 1964).

There are three clear of implications associated with adhering to a model of a transcribed record.

1) It suggests that the past has particular characteristics which enables it to be represented as data, namely it is the producer of those data (a theory explored here, in depth, in chapter 1).
2) It places emphasis on the deferral of interpretation to a post-excavation stage.
3) It suggests that the past can exist as a data archive waiting for someone to come along and interpret or re-interpret it.

The very act of producing a transcribed record relies upon the excavator deconstructing and disassembling physical evidences, and accumulating collections of descriptions, illustrations and material residues. This is a direct result of practitioners acknowledging the significance of each individual material component, conceptualising their inherent value as disassociated entities and recognising how even when transformed into data, they retain that value (see Hodder 1999; Roskams 2001). Though others would argue that by transforming evidence into data it becomes stripped of the presence of humanity (see Andrews, Barrett & Lewis, 2000; Chadwick 1997; Jones 2002) and thus, disassociated from any 'historical reference' (Gero 1995, 195). Taking these critical viewpoints through to their conclusion, any resulting explanations would only be defined by the scope and characteristics of the acquired data-sets, and thus it would be the transcribed record that becomes the medium through which we understand and communicate the past (Carman 1995). Current field methodology thus conditions and limits archaeologists to write histories of the material components of a site, and of the perceived mechanisms that have produced that site.

We structure our archaeological enquiries in such a way, that interpretation is, for the most part, something that takes place at the end of a protracted sequence of investigations with analysis often occurring in conditions and locations significantly displaced from an archaeological site (Thomas 2004a). The procedure dictates how the in-ground record should be excavated, deconstructed and transcribed, with the resulting transcribed record needing to be interrogated and reassembled before most interpretation occurs (Chadwick 1997). The stage of post-excavation often involves specialists studying isolated categories of data and materials, and perhaps it is here where the true scope of the transcribed record becomes apparent, as it suits specialised, post-excavation activities perfectly (Adams 2000). Is it possible to enquire why has this become the case? Why has the field experience been all but denounced as the best (or only true) opportunity to interrogate and interpret the conditions of the past? Perhaps archaeologists have become over cautious, as a result of the real possibility that mistakes can be made in the field? Just think back to what Barker said about archaeology being the 'unrepeatable experiment' … (1977, 12). It is plausible to consider how imposed readings and interpretations of primary evidence could result in a particular understanding, that might be open to question in the future, but because of loss of the evidence reinterpretation would not to be possible. By justifying such concerns, they continue to reinforce the importance of the creation of a transcribed record. The existence of this transcribed record offers assurance: it is perceived as being effective in its role as standing for the site, something which can always be re-visited, re-interrogated and re-interpreted. However, it remains of lesser importance in most investigative agendas, for any reassessment to take place (see Reynolds & Barber 1984).

In summary, the importance placed on the transcribed record, and its centrality to archaeological enquiry, has created a particular disciplinary paradigm, which arguably has far-reaching implications on how we understand the nature of the past, and the types of past we write about. Critically, current circumstances enable a focus of enquiry that puts the physical materials at the very centre. Leaving us to conceptualise the past through the patterns and actions that are believed to have produced those materials. And we explore that past, through our present capacity to represent this material record in description and image. Furthermore, by according the transcribed record with inherent archaeological value and relevance, there have occurred instances in the field where practitioners are able justify the retrieval of a bare minimum of data to effectively characterise the nature of the site (Chadwick 1999). In order to move this critical assessment forward, it is to be postulated here that the transcribed record can only ever be an ahistorical archive: at best a representation of the ways we currently view and manage our heritage resource (Spence 1993); and at worst an inherently flawed model that perpetuates wholly inadequate, and misdirected discourse about the nature of the past.

Chapter 4: Threats and Crises: perceptions, practices and products shaped by the commercial endeavour.

4.1 - Introduction

What I have attempted to demonstrate so far is how current field experience and recording strategies are designed to expose, characterise and transcribe material residues which archaeologists currently conceptualise as a record, a direct product of the past. Chapter 3 covered in detail the ways in which the discipline has sought to improve field technique, in order to establish the most appropriate and secure ways of undertaking these crucial tasks, and in doing so upholding the study of a material record as the overarching objective of our enquiries. The chapter concluded with the claim that despite the present position of methodological confidence archaeology continues to fail to respond to the possibilities of the material evidence, as part of an ongoing programme of historically-framed enquiry. In fact, it is plausible that practical fieldwork does have the potential to set the agenda for the types of past we are capable of constructing, but just not in its current format.

As implied previously, current archaeological practice leads us to attempt to answer a particular historical question: how have the contemporary residues, we study as a material record of the past, been produced (see Barrett 1995)? The ability to define and explain the extent of this realm of **past as producer** is shaped by the categories and conventions we use to conceptualise and write past as record. Any narrative that is created emphasises an ahistorical view of materials, and remains ill-placed to explore what it might have been like to inhabit particular conditions of history. The structured field technique, built around a stratigraphical appreciation of past materials (as critiqued in the previous chapter), and the absence of a conditioning ontology (as identified in chapter 2) – could both be seen as the causes of this current situation.

It is the intention here to widen this discussion to encompass the ways archaeological data are managed, how findings are presented and how past narratives are generated. It is in this textual arena where I believe the problems of past as record are most amplified, and have a direct, causal relationship with current criticisms of grey literature (which emphasise both its format, and the mechanisms of its production). The proceeding discussion will aim to bring the focus back to the development-led spheres of operation.

4.2 - The Archaeological Report: styles, standards, values and limitations

Reportage is traditionally seen as an adequate end-point to an archaeological investigation (Watson 2000, 151). A report is where the results of investigations are presented, often with chronological order, spatial

configurations and causal explanations brought to bear upon the various threads of retrieved, transcribed and analysed material evidences. A final report, which signifies the completion of work undertaken and the fulfilment of contractual obligations, particularly in developer-funded contexts, presents data, selected at the editing stage, which can effectively stand for the site (Jones 2002, 44). These client reports or **grey literature** represent an ever increasing body of work, which typically remain unpublished, rather destined for archive in various Historic Environment Records (HERs) nationwide, and at present are deemed by many to continue to have little or no impact upon the expansion of disciplinary knowledge (see Chadwick 2000; Darvill & Russell 2002; Darvill et. al. 2019). Arguably, they serve the interests of a particular facet / sector of the discipline, rather than the interests of the wider archaeological community, and other interested audiences (Council for British Archaeology 2001). What I intend to demonstrate through the following discourse is how the production of Grey Literature represents and perpetuates a particular way of writing about the past. Also claiming that the traditions of archaeological reportage have the potential to curtail the creation alternative narratives. Consequently, implying that archaeology often fails to capitalise upon opportunities to engage and inform a wider audience about the significance and importance of their work, the latter point increasingly becoming a necessity. Against a back-drop of long-standing and severe, economic austerity measures, where archaeologists have found themselves having to justify the significance of both their work and the value of heritage to the public, the engagement of a wider audience is viewed as increasingly important. As aptly expressed by Smith (2007, 7), 'the past cannot simply be reduced to archaeological data... it is always someone's heritage'.

4.2.1 - MAP / MAP2 Guidance and the Research Design

The exponential growth of developer-funded projects since the 1970s has itself created a particular set of problems, requiring practical response and adaptation. The discipline has had to find ways to manage vast quantities of data collated in the field, and also has had to address concerns regarding the paucity of professional standards relating to the obligations for reporting (and publishing) findings from archaeological excavations (Council for British Archaeology 2001). Standards and guidance relating to data management and reporting were first proposed in a document known as MAP (Management of Archaeological Projects), and subsequently replaced two years later by MAP2 (see English Heritage 1989 & 1991). These documents were originally designed as guidance templates, but their timely appearance led to their extensive adoption throughout the commercial sector. The impact of MAP2 on archaeological practice was two-fold: firstly, it suggested data sets should be assessed according to their potential, even going further to suggest this potential should be defined by an initial research design, and, secondly, it suggested a particular structure for the writing up of excavation reports, suggesting both a format and particular articles for inclusion. Each element is to be discussed separately, below, as a means of exploring the consequences of both directives, particularly focusing on their implications for developer-funded outputs.

MAP2 suggested that a programme of field intervention should operate within certain research objects, outlined as a **Research Design** (English Heritage 1991). This research design would enable particular questions to be answered through fieldwork, and would negate the somewhat arbitrary nature of site selection, being itself constrained by the intended programme of development. The research design not only allowed Project Managers to endorse particular excavation and sampling strategies in the field, it also enabled them to select particular data sets, retrieved and transcribed in the field, for analysis and interpretation, based on a judgement of their potential value. Very simply, data were of significance if their contribution to the research aims of the project outlined in the research design was demonstrable. The now direct correlation between data and research aims, also fitted succinctly within the present regime of **past as record.** In these instances, data were selected and used as statements pertaining to a material past; not only commensurate with the mechanisms that were perceived to have produced the in-ground record, but also with a past which is specific to the parameters of a particular research design. The potential of future field interventions, and even regional research agendas became merely a means of filling perceived gaps within the material record (Last 2012, 135). The success of field interventions, especially developer-funded ones, could arguably be seen as being judged on their ability to complete an understanding of the nature of the material record, in respect to particular sites and regions across England. The HER archive, can be viewed as a measure of how much of this understanding has already been achieved.

MAP2 also attempted to address the issue of archaeological reporting, and did this by establishing a clear distinction between what should be contained in the archive report, i.e. the grey literature (an output originating with PPG16, and known more widely as a client report) and what elements, if any should be selected and edited for wider publication (Council for British Archaeology 2001). As with the creation of the transcribed record in the field, the standard structure and content of the grey literature report was to assure intra- and inter-site, technical comparability (MacLeod & Svensson 2000). This made it easier to assess what was known about the material record in a wider, geographical context and aided the writing of future research designs. Through the integration of MAP2 guidance, it became commonplace for projects to allocate time, resources and finances to ensure excavation reports were completed in a timely fashion. So, it would appear on the surface that MAP2 had been successful in addressing the issue of managing the data explosion attributed to the growth of developer-funded archaeology (see Darvill & Russell 2002; Darvill et. al. 2019; Wylie 1993). Conversely, however, it is plausible to postulate that the problem has merely been shifted from one of managing and making available archaeological data, to one pertaining to the value, content and destiny of the textual resources that contain those data.

4.2.2 - Grey literature as an archaeological resource

A pen portrait of grey literature was provided in the introduction to this thesis. Here the discussion will explore how grey literature presently communicates archaeological discoveries, and will assess its effectiveness it this vein. Grey literature as a textual medium has undoubtedly come about as a consequence of current archaeological epistemology and methodology, as outlined in chapters 2&3 here, and is very much a representation of an 'archaeological present' (Pluciennik 1999, 673). As archaeological knowledge is currently gained from an assessment and characterisation of a material in-ground record, recovered as categories of disassociated facts (see Roskams 2001), it remains analysed and presented as such (see Edgeworth 2003; Jones 2002). Critics argue how grey literature displaces any commitment to a discourse about the past, choosing rather to merely give meaning to the material record (see Barrett 1988; Tilley 1993a). The current constitution of a grey literature report remains faithful to a long-standing tradition of separating fact from interpretation (see Council for British Archaeology 2001; Roskams 2001). The original field experience of the site is effectively 'exploded' into compartmentalised fragments of evidence, or seemingly static facts (Chadwick 1997; Jones 2002, 46). These fragmented evidences become the medium, through which the past is communicated, or more accurately through which the results of investigations are communicated: and it must be emphasised here, how these are in fact two distinctly difference achievements (although currently they appear inseparable). Traditions of reportage also embody current staffing hierarchies, and are representative of the common structure of field projects (see Everill 2009; Jones 2002). Report authorship is often viewed as an activity undertaken by individuals who hold positions of authority, as the relevance of the textual domain becomes increasingly significant at the end of field investigations. Whereas fieldwork is undertaken by those holding lesser positions, as the practical domain remains acknowledged as an opportunity to merely observe and gather (Edgeworth 2003). Often there is little connectivity expressed between original field experience and the latter post-excavation stages, with only the representative of transcribed record being the constant in both domains.

4.2.3 - Separating data from discourse (the format of grey literature)

The typical format and content of grey literature allows the first half of the report to preserve the appearance of Jones' (2002, 42) 'exploded' site. Often data are presented as stand-alone, 'factual statements' (Barrett 1995, 4), which have filtered down through a series of analytical procedures, gathering momentum as anchor-points which are arguably more representative of our present day analytical capacities than any conceivable past. Current post-excavation strategy favours dispatching isolated categories of materials to their respective specialists, who first assesses their potential, then undertakes a thorough analysis of the assemblage. Any appreciation of the original field encounter, and context of the in-ground discovery of materials is not considered a pre-requisite to assemblage analysis. This can result in both the materials and the specialist being completely disembodied from the contexts of discovery, and almost always separate

from experience of discovery. Specialists are employed purely as interrogators of an autonomous material category (Thomas 2004a) and often their work results in the production of knowledge of the material category alone, with little or no reference made to any connectivity with other material categories (Hodder 1989). The specialist reports contained within grey literature are often themselves distilled versions of the original. The report author / editor cherry-picks elements from the original reports on their ability to reflect any findings back into the broader site narrative (see Jones 2002; Watson 2000).

Within the grey literature report the stratigraphic data are frequently treated, and presented separately and differently to that of the artefactual and environmental materials. And it appears the stratigraphic evidence is that which undergoes the most significant transformations throughout the various 'intervention processes': from how it is experienced by the excavator as in-ground evidence, to how it is transcribed, through to how it is presented in the report. Much data retrieved on-site will remain unused, and not included in the final report – either dismissed perhaps as irrelevant in contributing to any desired explanation; re-written, in light of post-excavation examination; or reconsidered in the context of a broader contextual appreciation (see Hammer 2000). These transformations can make it increasingly difficult to trace reported facts back to the original in-ground experience of the evidence (*ibid*.), and may also impinge upon any attempt at reinterpretation at a later date. Within a grey literature report the individual stratigraphic unit, so carefully exposed and recorded in micro-scale in the field, only becomes relevant through multi-context groupings and phasing – undergoing multiple stages of data intervention. This could be indicative of a preference for defining and presenting material transformations and constructional histories of the stratigraphic record at a macro-scale, with the grey literature report. Prioritising this scale of presentation focuses the discussion upon chronologically and/or structurally relevant groupings (English Heritage 1991), rather than on exploring historically contingent and significant transformations of place (Clark 2000). Appearing largely absent from the consideration of the stratigraphic data is any appreciation of the longevity of inhabitation of particular strata (see Carver 1990).

It is commonplace that after the analysis of the individual feature and artefact categories, these once dislocated evidences are then drawn back together to formulate general conclusions about the nature of the past represented by the site (Hammer 2000). And often interpretations and/or conclusions made regarding the nature of the past are written in the same language used for describing the archaeological data (Barrett 1990). The resulting, closing narrative chronicles a perspective of the past, constructed through the material and transcribed record, which is ordered within relative space and time, and with explanations being dominated by linear sequencing and functional reasoning. It is at this juncture where grey literature can disappoint. Arguably, explanations of the past are merely reduced down to a description of material

interventions at a particular site, or when studied in synthesis, as a body of knowledge held in a HER archive, representative of a series of material interventions undertaken within particular regions. New 'knowledge' remains inextricably linked new material discoveries. Consequently, and as stated previously regional research strategies / agendas concern themselves with filling perceived gaps in the record (Last 2012, 315). Many critics believe an inability to conceptualise and formulate meaningful historical narratives is one of the major failings of commercial archaeology, and of grey literature.

A caveat to what has been explored above is an awareness that the primary purpose of grey literature is as a client report, presented as an archival resource, and this primary purpose has already been identified in chapter 1 of this thesis. However, a deferral of interpretative responsibilities, has created a major problem for the archaeological discipline (Barrett 1995). Choosing to focus upon presenting findings rather than writing histories remains an unsatisfactory outcome of archaeological endeavour, whether that is commercial-derived or not. Therefore perhaps we need to ask ourselves whether grey literature should remain the accepted output of developer-funded field interventions, in its present form? Chapters 5&6, which follow, will test the value of grey literature, as they are used in projects seeking to synthesis these developer-funded reports, alongside more traditional sources. In those discussions the structure, content and original purpose of grey literature will undoubtedly be brought to the fore. For the remainder of this chapter, the discussion will focus on the overarching concept of 'risk', within the planning process, and how that too has impacted upon both practice and products within the commercial sector.

4.3 - Commercial Archaeologists: A portrait of risk takers or risk managers?

Archaeologists were once mindful, but not necessarily averse to taking risks: risks enabled the discipline to advance. Arguably, risks taken in relation to ideas and practice have often enabled archaeologists to challenge what has come before, and this has proved crucial to a discipline operating in a scholarly arena. Conversely, risks in the commercial arena are considered potentially detrimental – they frequently relate to loss - and thus are treated very differently: they have become something to respond to, and militate against. It could be argued how we choose to rise to the challenge that 'risk' brings, defines and unites a profession, but divides a discipline. The introduction of a raft of professional standards has allowed us to protect our discipline against internal risks, such as subjectivity and unprofessionalism, and the perfecting and enactment of such standards has become a significant driving force for innovative practice. However, some of the foremost 'risks' in archaeology today, risks which relate directly to the loss of in-ground, archaeological remains, are largely caused by external factors, and thus, have become the responsibilities of those external to the profession / discipline.

The methodological response to 'risk' from the archaeological profession, operating within those external conditions, has sought an 'archaeology of no surprises' – with archaeologists now fulfilling contractual obligations, on behalf of the developer and planning authority, evaluating, quantifying and recording the physical remains (frequently termed the archaeological resource and/or heritage asset), minimising loss by means of mechanised extraction, and delivering all this under pre-defined procedures, terms and costs. Arguably, archaeologists are no longer in the business of risk taking, but rather one of risk management. Leading us to become overly sensitive to particular types of risk. Risk is equated not only with loss of the physical, in-ground resource, but also with the loss of potential knowledge derived from that resource: culminating in the loss of the benefit of understanding the past. To adapt to this situation, archaeologists have been driven to devise an identikit response to risk. Consequently, this has set up a disciplinary trajectory that favours swift and direct methodologies, where predictable outcomes are commonplace - and experimentation and innovation – things which once advanced the discipline – remain geared towards practical considerations. This section will explore the limitations of this postulated risk adverse response further, using an uncompromising, and oft critical lens to achieve a full appreciation.

This section begins with a claim that risk management has led the archaeological profession to its present position. As an adequate response to risk archaeologists working in the commercial sector began to define an optimised response, which required a particular set of skills, staffing roles and hierarchies, as well as particular operating knowledge - these in turn have arguably come to define the sector. It may not be too bold to state how 'doing archaeology' has become synonymous with risk management, risk minimisation and risk mitigation. With success, in the commercial sector being measured by an ability to effectively mitigate and respond to risk. Why has this become the case? Archaeology, operating within planning controls, has become part of a much larger commercialised marketplace, and practitioners are first, and foremost expected to operate within parameters imposed by planning and development. Through a competitive tendering process, archaeologists are engaged by developers to evaluate and take action to minimise risk, and in doing so, fulfil their contractual obligations, by swiftly and efficiently removing a potential cause of planning delay. This situation can be seen as being at odds with wider disciplinary objectives, shifting the focus of both investigations and outputs. These differences have arguably caused much misunderstanding and division within the discipline.

The commercial sector seems to have found itself locked in a perpetuating cycle of threat of loss and required response – forcing actions founded largely on principles of risk management, and not necessarily ideal for heritage management. Taking further risks – either through innovative field practice or community

engagement, tasks which steer the objective away from a strict risk management approach are limited. Often any innovation that is developed (such as advanced geomatics and imaging), does so to enable swifter, more efficient practice in both recovery and recording, and elevates the skills-set and specialist services that are valued in a competitive marketplace. These are drivers that whilst beneficial in practical sense, fail to support the development of any coherent archaeological ontology. Anything that has the potential to erode the position of authority the profession has taken as a result of the formation of the commercial sector is treated with caution, and sometimes abject suspicion. This reading paints a picture of a sector which is, in some respects, unreceptive to change. Is this perhaps due to inherent insecurities existing within the commercial sector?

Has the drive to minimise and manage risks within the planning framework made the sector oblivious to the real risks this current situation engenders? It is possible to critically revise the main risk(s) faced today, and bring the focus back to a disciplinary objective? One postulated risk, is where the sector, in its current guise may become irrelevant or at the very least, marginalised (Skeates 2000, 124). Is it now the time to consider how the commercial sector could reassert the value of what they can potentially do, to redefine the scope of the archaeological agenda, and perhaps take more risks in order to manage those imposed upon them more effectively? Is such a scenario at all possible? Given the present circumstances where the planning agenda and the guided output of development-led archaeology are both concerns originating from outside the discipline.

4.4 - An Archaeological Profession Defined by Agenda and Policy: the PPG16 years

The following section will study, in more detail the development of the commercial sector, its activities, and its legacy. These are to be considered against a back-drop of planning policy changes seen over the last three decades. It will also serve to emphasise any perceived threats / risks posed to the continued evolution of the profession, should the sector fail to address the limitations of current practice. The discussion will include a critical appraisal of the management practices which have characterised the commercial sector in the late 20th and early 21st centuries. Tracing the conditions posed by PPG16, the short-lived PPS5 and the subsequent National Planning Policy Framework (NPPF), and considering what implications current planning policy, and the development-agenda, in general has for the future direction of the commercial sector. The logical starting point for this section is the introduction of PPG16, and evaluating how archaeology was initially considered within planning process, and the profession's reaction to becoming fully, and swiftly immersed within a commercial arena. It will in turn reflect upon the legacy of a PPG16 defined sector, as it now strives to meet the more far-reaching implications presented by the National Planning Policy Framework.

Whether it was entirely welcomed or not, in 1990 the archaeological profession was thrust (some would argue largely unprepared) squarely into the planning process, and thus became subject to the inertia and broader economic considerations of that greater force (see Darvill & Russell 2002, 51; Grenville 1993, 130). The profession steeled itself to enter this unfamiliar arena, replete with its own language, practices, rules and agendas. Undoubtedly operating within a commercial sphere gave rise to an emergent archaeological 'profession', resulting in an increase in jobs and a diversity of roles within the sector. The position also vastly increased the quantity of data that existed about the archaeological resource; data that the sector believed would have been lost to the destructive force of development without mitigative intervention. With the introduction of PPG16 the profession was now defined by less-than ideal situation and though considerations had been made for their timely intervention, the sector was still dictated to by the mechanisms of development (Darvill & Russell 2002, 28; Darvill et. al. 2019). The profession tightened and enforced their standards, refined and optimised their practice(s), and they held true to a steadfast and unwavering 'preservation' ethos. Some scholars would argue how these reactions to a somewhat enforced transformation of the profession, resulted in a sector that appeared, on the surface to be uninteresting, mechanistic and insular (Grenville 1993, 132; Scanlon et, al. 2011, 60). The previously stated considerations made regarding the implications a particular and/or dominant conceptualisation and methodology had on practice and investigative outputs – explored here in chapters 2&3, will now be extended to also consider the impact of government policy, professional infrastructure and archaeological resource-management strategies.

4.4.1 - PPG16 and the attention paid to archaeology within planning

The Planning Policy Guidance Note 16 was established in 1990. The guidance note gave direct consideration for archaeological activity within the planning process, and for many it represented a long-overdue government endorsement of archaeology and the historic environment (see Breeze 1993, 54; Darvill & Russell 2002, 3; Everill 2009, 2). Development had increasingly been viewed as the greatest threat to archaeological sites, and without timely intervention, development also threatened the knowledge those sites represented. The introduction of PPG16 was perhaps symptomatic of the wider and longer-standing angst over the loss of our physical heritage, felt by a generation of professionals, many of whom had already been actively engaged in 'rescue' work (Darvill & Russell 2002, 3). The full commercialisation of the sector inherited a particular impetus from this pre-existing 'rescue' culture seen in the 1970s and 1980s (Darvill & Russell 2002; Darvill et. al. 2019; Everill 2009). With it saw a significant increase in the scale of archaeological activity, far greater than seen previously (Darvill et. al. 2019). It was to prove fortunate that during the preceding decades professional archaeologists had already begun to consider, and formulate a mitigative

response to the loss of the archaeological resource. In addition, the technical and methodological developments emerging from the rescue-era of the 1970's and 1980's eased the profession's immersion into the still largely unfamiliar arena of planning and development. In many respects the content and focus of PPG16 suited emergent thinking and the general developments seen in the discipline, coming about as a result of this 'rescue' legacy.

PPG16 openly acknowledged the fragile and finite nature of the archaeological resource. The Policy document served to raise awareness, amongst the developer community and within local government, of the value of archaeological assets and risks to current and future generations if the in-ground resource (and by association - archaeological knowledge) were to be lost. PPG16 accorded the archaeological resource with having a clear existence value, i.e. its physicality gave it an inherent, irreplaceable value (Scanlon et. al. 2011, 57), and this value openly endorsed what was seen as a **preservation agenda**. PPG16 placed emphasis on establishing means within the planning process to preserve the archaeological resource, and wherever possible the process was to favour in-situ preservation. This position suggested the physical remains themselves held greater value than the data and descriptions those remains would become as a result of a rescue excavation. It also implied how rescue excavation was not the optimum choice of archaeological intervention, and the deferral of excavation to a future time when investigations would not be subject to time / resource restrictions would be a preferable outcome. Furthermore, excavating under 'restrictive' conditions meant the imposition of any ideas and principles may inevitably prove incompatible to the future potential of the data and their interpretation. What emerged shortly after the introduction of PPG16 was not only a type of archaeological practice which regulated and mitigated against threat and perceived loss, but also one which utilised a refined and optimised methodology that further emphasised the (pseudo) objective classification, description and recording of data sets.

4.4.2 - Adaptations to practice with the advent of PPG16

With the introduction of PPG16 saw a profession quick to adapt to its place within the commercial realm. There was a clear desire amongst professionals working within the commercial sector to be taken seriously by fellow professionals, and as a result they placed significance and confidence in being able to justify the nature of their response both within, and outside of the discipline. Operating within development meant becoming adept at competitive tendering, and developing a best-fit response within the parameters of their contractual obligations – the 'best-fit' encompassing tasks, costs and time. Arguably this resulted in evaluative modelling, optimised project designs and the consolidation of best practice (Darvill & Russell 2002, 3). A simplistic account of a typical project design was to propose a set of standardised mechanisms devised primarily to define (rather than interpret or understand) the nature of the in-ground resource,

(conceptualised as a physical asset), bound invariably by the terms and conditions of development mitigation, including its arbitrary geographical limits, project timescales and finances and the expected outcome, as a client report. Also out of PPG16 came the development of additional techniques such as the field evaluation and desk top studies (Darvill & Russell 2002, 35; Everill 2009, 32). Alongside a suite of new methodological tools, emerged standards pertaining to project management, the structure and content of project designs and even the format of grey literature (the technical output of commercial endeavours) – some of which has already been discussed previously within this chapter (see also Hills 1993; Lawson 1993; Southport Group 2011). Archaeologists espouse a mixed appreciation of this practical, but varied tool-kit, with many finding it impertinent to criticise a response, so evidently grounded in pre-existing conceptual and methodological models, where data retrieval and description takes precedence over theoretical construction of knowledge (Hodder 1993). What is clear is how the practical and management decisions made via PPG16-guided investigations facilitated an assessment of the worth of the archaeological resource (albeit judged as a standardised tick-box exercise), but a practice that for many has none-the-less proven invaluable within the commercial arena (Darvill & Russell 2002, 35; Startin 1993, 185-6). Any subsequent enhancements and improvements to practice, observed in the 1990s were aimed at making field practice more efficient, and more able to respond effectively to the somewhat artificial situations created by development pressures (Scanlon et. al. 2011, 58-9).

Underpinning all of what has been outlined above, was the implicit control of the developers, who continued to set the conditions, the timescales and the purse strings, as well as the expectations of any archaeological activity and its outputs (see Baker 1993, 113; Skeates 2000, 75-7). It is hard, but still necessary to acknowledge how the archaeologists' role become focused merely upon delivering the objectives of a brief, with any wider 'benefits' only considered if the costs allowed (Southport Group 2011, 63). It is clear most developers saw archaeological activity as a necessary evil (Chadwick 2000): a route to securing planning permission and required nothing more than a mere compliance with regulation (Southport Group 2011). Practice was suited to maximising archaeologists' ability to recover data, whilst allowing them to operate within the limitations imposed by developers. And perhaps it would be plausible to argue what the sector developed was an insular response to a particular threat. Commercial Archaeology was undoubtedly operating within an arena which sought to serve limited stakeholders, and which was orchestrated by specific role players, who rarely prioritised archaeological objectives over their own. This rather stark reading of the situation faced by commercial archaeologists, sadly appears to have only served to perpetuate current criticisms regarding the limited scope of commercial undertakings.

What the introduction of PGG16 brought with it was a whole new set of imperatives and dictates, which subsequently have been criticised as being incompatible to wider, perceived disciplinary objectives, as outlined in chapter 2 of this thesis. The archaeological outcome and advancement of knowledge was lower down the overall agenda, than many archaeologists were comfortable with. Arguably the sector unwittingly became blinkered to the wider benefits and opportunities of their endeavour, above all their work had to sit squarely within a PPG16 remit. Practice in the commercial sector continued to evolve in this somewhat insular manner in-spite of progress in other areas of the discipline – leading to the divergence many still acknowledge exists today. The reissue of planning policy guidance has tested whether the sector has inherited a legacy of reluctance to envisage a transformation of perception and practice, and this will be explored in the next main section. Any impetus for change in those post PPG16 years, largely came from outside the sector. However, this critique should to be considered in the context of active confidentiality clauses, which are now commonplace in the contracts archaeologists have with developers, as these can severely inhibit debate and opportunities for wider collaboration (Chadwick 2000, 9; Everill 2009).

To recap, at this point, critics of commercial practice argue how it merely represents a mechanised set of disassociated tasks (Everill 2009, 1 & 8; Scanlon et. al 2011, 60), which are confined by parameters dictated by developers (Skeates 2000), and defined within inflexible project specifications, written as part of a competitive tendering process (Lawson 1993), and fuelled by an archival 'preservation-by-record' imperative (Chadwick 2000). Others go further and also claim these mechanised tasks are exacted by a workforce (comprising graduate field technicians) who are judged more on their efficiency than their ability to critically engage with the demands of historical enquiry (Everill 2009, 4 & 8). In one respect it is difficult to reconcile such a criticism, as the profession has seemingly perpetuated a position of its own making – it cannot, as Everill claims, respond to the demands of historical enquiry, because that was never its intention (2009, 33).

As alluded to earlier the growth of the commercial sector resulted in a growth of opportunities for staff, with a diversity of skilled roles emerging within the sector (Southport Group 2011). Interestingly there exists conflicting views regarding the staffing structure and hierarchy, the skills-base necessary for developer-led project management, and relationship between the professionalization of the discipline and the perceived obligations of the work undertaken. A cynical perspective would be to argue that the commercial sector has sought to engender personnel who can operate as service providers (see Cumberpatch 2001, 4; Everill 2009, 36; Scanlon et. al. 2011, 58; Southport Group 2011): where employment is favoured towards individuals who can fulfil contractual obligations, and who can tolerate the somewhat bureaucratic expectations of the local authorities (Everill 2009, 203). In this instance the favoured skills-set would undoubtedly serve to perpetuate the mechanised and somewhat curtailed nature of the investigative agenda, and vice versa. It would be

misguided not to stress here, how though staff working within the sector have developed skills in contract negotiation, project management, arbitration and self-regulation, which undoubtedly serve them well within their spheres of operation and engagement (see Collcutt 1993; Darvill 1993; Lawson 1993, 152). Schofield, in a paper presented at the 2013 IFA Annual Conference, spoke of the inherent psychological traits of the staff currently working in the commercial sector. Typically, the sector favours what Schofield terms as 'thinkers', who respond to the task at hand without emotion, and he goes further to suggest this may have contributed to the isolation and limited scope of the current perceived value of commercial undertakings (Schofield 2013; see also Fowler 1993). The curiosity of enquiry into the past, which undoubtedly inspired alumni from universities across England to enter the archaeological profession sadly seems to have 'little measurable or financial value' in the commercial sector (Everill 2009, 4). Employment within the sector does not bring with forth the means of inheriting the 'disciplinary legacy' (Everill 2009, 42), instead it secures membership to an exclusive club that promotes what Chadwick refers to as 'an anti-intellectual atmosphere' (2000, 3). As a result of the exclusion of personality, free-thought and emotion from the investigative process, the profession has moulded a passive work-force, albeit efficient and productive, they could not be further disconnected from the past they should be investigating (Everill 2009, 8; Hodder 1993, 12; Parker-Pearson 1993, 226; Southport Group 2011, 14).

4.4.3 - Measuring the success of PPG16-guided interventions

Before moving the discussion on to study more recent changes in planning policy, it is necessary to complete the discussion here by exploring how the value and success of developer-funded work (through PPG16) was judged and measured. And outline what contributions the sector made in revealing the potential of the archaeological resource and in gaining a wider understanding of the past. In order to complete this task it is necessary to consider the outputs of commercial undertakings, and collate opinions expressed from those working within the sector, alongside opinions of those from the wider archaeological discipline. Positioning the discussion around two key questions.

1. How much more do we know since PPG16?
2. What is the basis of this knowledge?

It is clear opinion is divided. In the last three decades the commercial sector has been responsible for generating an enormity of data: in quantities (and arguably also of a quality) both the sector and the discipline as a whole has found difficult to cope with (see Everill 2009, 2; Scanlon et. al. 2012, 67). Grenville accuses the commercial sector of producing mere 'dead knowledge' (1993, 132): resulting from contractual obligations, and restricted methodological choices that are invariably geared towards meeting the objectives of the developers (Baker 1993). The purpose of the technical publication / client report known as grey

literature serves to inform future planning decisions, and some would argue was never created to advance the frontiers of disciplinary knowledge (Southport Group 2011, 14).

There exists widespread recognition concerning the issue of data accumulated via PPG16 led projects being underused, undervalued and perhaps even unusable (Cumberpatch 2001, 11). However, few are mobilising to address the issue of the interpretation of this data, even fewer perhaps are critically engaging with the data amassed over the decades since the introduction of PPG16. Various theories have been postulated to why this may be the case. Perhaps it is the perceived inaccessibility of the format? If this is the case, should we be asking if current recording procedure is in-fact incompatible with the mechanisms of interpretation? A further reason is the limited circulation of grey literature which implies the sector generally fails to make wider dissemination a priority output of their work (see Bradley 2007; Harlan 2010, 270; Hills 1993, 219; Southport Group 2011). Everill reasons how this is because PPG16 was 'never designed to generate a research output' (2009, 33). More recently developer-funded work has begun to make reference to, and use of regional research agendas, though some discount a research agenda as merely a crude adjunct to the mechanised process of data collection (Hunter & Ralston 1993, 36). However, others refuse to dismiss the value of grey literature, and believe commercial archaeology is now the main producer of research-relevant information (see Bradley 2007; Darvill & Russell 2002, 65). Bradley (2007) was one of the first scholars to advance this claim and proceeded with producing a countrywide synthesis of current evidence, satisfied that much of the new knowledge was derived from developer-funded reports. And although Bradley (2007, xvi) admitted the task of synthesis required the specialist skills of two post-doctoral researchers to distil all the relevant information, he remains a steadfast exponent of the wider potential of grey literature. Everill supports Bradley's show of faith, by suggesting the underuse of data contained within grey literature has merely come about because of sense of general ignorance from the wider profession (2009, 33). Darvill and Russell take this idea a step further and argue that the value of commercial work continues to be mistakenly judged against traditional expectations of what constitutes a viable investigative output (2002, 58). The arguments in favour of according a particular value, research-focused or otherwise, to grey literature cannot obviously disregard the somewhat inconvenient truth pertaining to the underuse of vast quantity of data and material generated by the commercial sector (see Cumberpatch 2001; Southport Group 2011). The proceeding section will further explore the potential reasons why this data remains significantly underused, by focusing on the perceived failings of the sector to conceive and foster the interests, desires and values of alternate user groups.

4.4.4 - PPG16 and the wider public interest

A final common criticism of PPG16-guided practice was its failure to establish wider interest, or to develop mechanisms for inclusion and/or participation from communities, vested interest-groups, amateurs and grass-roots non-specialists (see Cumberpatch 2001, 10; Everill 2009, 36; Parker-Pearson 1993, 225). Certainly, throughout the 1990s there were piecemeal and positively received attempts to engage and inform, within the remit of commercial projects, however these were the exception rather than the norm. It is clear the infrastructure of commercial activity, in its current form, cannot consistently achieve a remit of wider engagement. One of the reasons argued has been because the sector has failed to adequately demonstrate how wider engagement can add value to development (Southport Group 2011, 4). Some Managers may worry that with engagement comes the risk of diverting precious (and limited) funding, and time away from technical aspects of commercial endeavour (Cumberpatch 2001, 12). Health and safety considerations and restrictions arising from contractual obligations / confidentiality clauses, as discussed previously, are also frequently used excuses for omitting the public, amateurs and even volunteers from commercial sites. In addition, it could be argued that the commercial sector has found solace operating with specialist knowledge, which can serve to further ostracise non-specialists. It has been previously stated how the sector measures the significance of the in-ground resource through specialist and optimised operating knowledge, and the purpose and value of this remains poorly communicated, poorly conceptualised, and thus largely invisible and intangible to those outside the profession (Startin 1993, 185). This further fuels claims that the sector has alienated itself from much wider perspectives pertaining to archaeological value and the transformative power of the knowledge of our past (Fowler 1993, 6; Skeates 2000, 124).

Cumberpatch (2001, 10) specifically decries the absence of any mechanisms to feed non-specialist participants into project designs, and warns the commercial sector that they neglect the pre-existing local knowledge base at their peril. Not only is there a clear absence of mechanisms for participation in fieldwork, but following on from previous discussions relating to the underuse and inaccessible format of grey literature, there is a failure to capitalise upon the wider educational value of archaeological archives and commercial outputs (Hills 1993, 222; Southport Group 2011, 11). Frequently the sector defers the role of wider engagement to the Historic Environment Record (HER) staff however, they struggle to prioritise this, amidst ongoing funding cuts and staffing reductions, and thus an inconsistent picture emerges across the piece (Baker 1993, 110-111; Scanlon et. al. 2011, 67). In-spite of the isolation of the commercial sector, wider public interest in archaeology over the last three to four decades has flourished. The desire to experience, to learn and to participate has been met by archaeology in popular media, and more recently through a reprise in amateur 'community' led projects. Archaeological investigations, whether research, community or commercially driven require archaeologists to temporarily affect local people and local places (Skeates 2000, 86), and the legacy of their work has the potential to transform those people and those places.

Therefore, to continue to omit the interests and needs of a wider audience is a grave misjudgement. This topic shall be revisited and further reflected upon, in the next section.

In summary, it has been shown how the introduction of PPG16-guidance corresponded with the archaeological profession entering into a competitive and commercial marketplace. Positioned as such, the sector had to consider alternate factors, to allow it to operate within this distinct arena, subsequently leading to criticisms that it had become somewhat isolated in its endeavour. The consideration of archaeology within the planning process meant the sector optimised and mechanised the practice of archaeological intervention. The sector defined the value of its endeavour, through a recognition of the **existence value** of the archaeological asset; this placed focus squarely on the loss of archaeological resource, above any subsequent loss of knowledge and understanding. Did this reaction only serve to off-set one potential loss, with another? Did the sector's PPG16-guided responses fall short in clarifying and positioning a disciplinary-led objective for the archaeological endeavour; one existing beyond mitigation and preservation (Everill 2009)?

Without doubt the critical assessment presented here will likely raise a few eyebrows, and may even paint a picture of a sector, for which many who work in (or have worked in) will fail to recognise, or at the very least will be unwilling to acknowledge. The sector has spent over three decades investing in improving standards and practice, founded on a premise that placed confidence and value in the technical outputs of the commercial endeavour. Of course it would prove uncomfortable for many to be asked to question the founding principles of the work achieved so far. However, as the sector enters a new era, defined by a revised relationship between archaeology and planning, it must be prepared to confront and address some of the issues and criticisms raised here. Does the more recent revisions to planning guidance amount to a second chance? Is it plausible to view these revisions as an opportunity to re-shape a sector that can serve a discipline and the wider public more successfully than it has done up-until now? Is there now an impetus to implement wider conceptual and methodological transformations? Perhaps in order to achieve this, it would be necessary to promote a wider discussion (which is not the intention to undertake here), addressing questions such as:

- What can the sector learn from its current position?
- How can the sector engender change where it is needed?
- What are the limitations to change?
- Can we justify continuing to apply the same methodological response?
- If the sector is to change, what should the future response look like?
- Who will take responsibility?

What the review so far has made clear is the necessity to off-set our current perceptions of loss (of data) with a recognition of potential gains (of knowledge and experience). Leading to advocating a sector which takes more risks – one that is creative, self-critical, and is able to respect and account for the needs and interests of the wider public. The opportunity to initiate such a revision may be offered by the National Planning Policy Framework. This, therefore will form the focus of the proceeding section.

4.5 - Planning Policy Statement 5 and National Planning Policy Framework

In the last decade, a quick succession of revisions were made to planning policy, which conversely have impacted upon archaeology's position within the planning process – firstly, the Planning Policy Statement 5: Planning for the Historic Environment, published in 2010, and its subsequent replacement, the National Planning Policy Framework, published in 2012. It is the aim, from this point forward to consider how the sector has been able to respond to the changes represented by these policy revisions. The discussion will address the capacity and capability of the sector (post PPG16) to respond to what are viewed as significant changes in planning guidance: and consider what limitations or potential issues may arise? The discussion will also establish how the revised consideration of archaeology, and heritage value, within the planning framework could prove to be the most advantageous position, from which to initiate a transformation of archaeological practice and product. The proceeding discussions will include establishing ideas regarding how such transformation could be realised within commercial working frameworks.

In 2010, the commercial sector braced itself for the adoption of new planning policy guidance with the introduction of the Planning Policy Statement 5: Planning for the Historic Environment (PPS5), which replaced the pre-existing Planning Policy Guidance Note 16 (PPG16). PPS5 was rather swiftly succeeded by its replacement, in 2012 with the National Planning Policy Framework (NPPF), which remains in use at the time of writing. For a second time (and subsequently, a third time) professional archaeologists working in the commercial sector found themselves in the position where the circumstances of their work, and their approach were to be defined by policy guidance. This said, allowances were made, in both instances for a period of sector consultation prior to these policies going live. The focus here will favour the content of the NPPF, as this has superseded the content of PPS5, however both policy documents share many similarities and a direct comparison of both policy documents has been usefully prepared by English Heritage (see English Heritage 2012a).

The questions to be raised and addressed here, in light of these revised circumstances for the sector include:

- Is the profession at risk of repeating their historical response, a reactive one resulting from a perceived loss of control?
- Could the new challenges defined by PPS5, and subsequently NPPF, be met without a critical appraisal of what has happened before and a consideration of how perhaps could we react differently?
- Who and what will define the emergent profession resulting from this period of change?
- Could the sector, in fact see the emergence of revised planning policy as an opportunity to shape a new profession, redefining the core principles of their endeavour?

It has been made clear previously, how the commercial sector operates within a broader market forces. However, it has also been acknowledged how the sector must also strive to seek to achieve outcomes that fit within wider disciplinary objectives. Presented here is an attempt to establish potential mechanisms for transformation, with particular emphasis on how the sector can reclaim some semblance of control. Considering what the commercial sector could become. However, prior to addressing these wider questions, let us take a step back and look more in-depth at the shift of focus which NPPF places upon the **value** and **potential** of the in-ground resource and upon archaeological intervention, and consider what is required, from the sector, to be able to adequately respond to these changed definitions.

On first reading you would be forgiven for thinking little has actually changed between the planning policy guidance outlined in PPG16, and the instructive detail contained with the National Planning Policy Framework (Southport Group 2011, 26). Core tasks and outputs as defined within the NPPF when taken at face value, seem surprisingly similar to those enacted through PPG16-guided regimes. A simple précis of those tasks follows. (Arguably, however, such a superficial first-reading would be misguided and somewhat dismissive of any opportunity to make significant (and long overdue) transformations within sectoral practice(s)).

Task 1: Undertake an assessment of the nature of the archaeological resource and/or heritage asset at risk. To be completed and made relative to known / previously characterised resources / assets of comparative nature, by utilising existing archival material in the HER, and relevant specialists to do this.

Task 2: To make judgements in order to apportion 'value' and 'significance' to the resource and/or asset at risk. And again, these must be made relative to known / previously characterised resources / assets of comparative value. Value is to be measured in the information the resource / asset holds, and its significance demonstrable by the understanding that can be conveyed by its interpretation.

Task 3: To establish a strategy to recover and record information and data appropriate to the nature of the resource and/or asset.

Task 4: To archive investigative results with the HER, to enable them to be accessed by a wider network of users (including the general public).

(after Department for Communities and Local Government 2012).

The intention, moving forward is to sample a selection of these tasks, and compare in more detail both their existing and future practical implications, as well as summarising any limitations arising from applying PPG16-derived methodology. The aim is to identify any potential changes required to fully meet the expectations outlined in the NPPF. The intention being to map-out an envisaged response to the demands of NPPF, from the current mechanisms and thinking existing within the commercial sector.

4.5.1 - Assessment of the nature of the resource / asset at risk

At the time of PPG16, the sector developed a suite of evaluative tools to enable an assessment of the in-ground resource to be completed effectively and as comprehensively as the methodology allowed (see Everill 2009; Darvill & Russell 2002). The format and scope of the assessment would be tailored to the perceived value and significance of the resource. The NPPF suggests such evaluative tools should continue to be used to similar effect, as the quote below demonstrates.

> Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.
>
> (Department for Communities and Local Government 2012, 30)

Earlier in the thesis, it was asserted how it had become commonplace to conceptualise the in-ground resource / asset as a physical record: comprising distinct component parts (features), which are comparable with pre-existing recorded data (held by the HER). The NPPF requires archaeologists to make judgements regarding: the likelihood of discovery of in-ground remains; the composition and 'value' of those physical remains; and the potential impact development may have on the integrity of the asset. It is intended that these judgements will be based on existing data acquired for the most part through previous commercial investigations, documented in grey literature, and held within the HER, as asserted by the quote below.

> As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary.
>
> (Department for Communities and Local Government 2012, 30).

It can be foreseen that such judgements are likely to be formulised in a similar way to how they were under PPG16-guidance. What is important to note is how judgments made at this evaluative stage can influence any and all proceeding stages of the investigative process: including the field methodology adopted; the timescales and finances secured through the tender process; the scope and content of the research design; and subsequently, any conclusions / interpretations generated.

Taking the discussion aside momentarily, to consider how the NPPF requires **future** judgements to be based on **legacy** regimes (including commercial infrastructure, practice and any generated outputs). It is plausible to posit how these may prove to be a caveat to potential change within the sector. Under the revised planning guidelines brought about by the NPPF, and as quoted above, the archived data (comprising grey literature content) held by the HER would need to continue its role as the main point of reference for advising and influencing future developer-funded work. The NPPF requires the sector to continue to consult these archived resources, as a means of:

1) predicting the likelihood of the discovery of heritage assets;

2) assessing the significance of the heritage asset at risk;

3) defining the impact of development on the significance and potential value of the asset;

4) developing local plans: agendas which will inherently affect planning and archaeological mitigation decisions and;

5) initiating a pre-planning phase of wider public consultation

(Department for Communities and Local Government 2012).

Given this conceived connectivity, what are the potential risks of utilising a resource that many have decried as being unusable, or at the very least inaccessible in its current format? Are the apparent limitations of the grey literature resource at risk of being recycled by the NPPF emphasising the somewhat necessitous value of the archaeological archive, as it currently exists? As previously stated the grey literature archive has come to represent 'dead knowledge' (Grenville 1993, 132), and serves as a mere minimal response output of developer funded investigations delivered under PPG16-guidance (Chadwick 2000, 3). The archive has largely proved impossible to process beyond classification and description, and has become a burden to the HER, who is tasked with its curation (see Chadwick 2000, 9; Hills 1993, 217). The archive currently represents the distinct operating knowledge of the commercial sector, and any potential beyond that role has yet to be established.

Darvill and Russell (2002, 66) believe the challenge is to merely begin to 'make good use of the data'. This suggests some wider value is inherent in the data, and what is needed is no more than a little imagination to make it into a resource with wider reaching potential, especially in relation to dissemination to garner wider public interest and engagement. One would assume Darvill and Russell expect the wider discipline (or at the very least specified individuals working within the commercial sector) to take up this challenge. Over the years since Darvill and Russell issued this directive, there have been limited opportunities to do just what they advocate. And one suspects it is not because of disciplinary lethargy or lack of opportunity, but rather it is due to the structure of the archive, and an inherent and widespread inability to conceptualise archaeological material beyond the traits that make it a candidate suitable for archiving. The archive first and foremost fulfils its role as a means for assessment, and the communication of contractual results – it critically represents the codified system of current archaeological field methodology, and thus its value or potential beyond that is, for many stifled by the original circumstances of its creation. Therefore, continuing to utilise the archive as a means for assessment under the guidance of the NPPF will undoubtedly place limitations on any judgments made from it. It is plausible to foresee building future commercial endeavours upon the technical and poorly conceptualised 'knowledge-base' contained within the HER, and surely such actions would place unquestionable limitations upon the scope of any future work. Herein lies what could present a considerable problem for the commercial sector, and a problem it must seek to address.

4.5.2 - Judgments to apportion 'value' and 'significance' to the resource / asset

Coupled with an assessment of the physical nature of the asset (as outlined above), is has become a requirement to apportion value and/or significance to the asset at risk. The apportionment of value had had relevance to PPG16-guided activity, though arguably the sector had perceived this more as an emotive measure of the potential loss of the in-ground resource – a legacy of the rescue-era. As previously outlined PPG16-guided interventions emphasised the existence value of the in-ground resource above other possible values, and thus the sector focused its resources and methodologies on producing a technical, replacement record of that resource. In essence the sector chose to off-set the perceived loss caused by development, with a tangible and manageable gain. The existence value of the in-ground resource was preserved in the copy or record produced. Any academic, research or wider use value of the archaeological resource was frequently deferred: these values belonged to those somewhat elusive 'future generations', and therefore rarely impacted upon present sectoral practice. Because of these beliefs investment was made in optimising methodologies; methodologies designed to quantify, qualify and determine the physical make-up of a site. As a result, these methodologies became the mainstay of commercial practice, remaining largely unchallenged. The limitation of such methodologies has already been addressed earlier in this thesis, and will therefore not form part of the discussion here. One of the key messages emerging from PPS5, and

subsequently the NPPF are the judgements made regarding the **significance** of the archaeological resource. It has become clear how significance is now to be judged beyond its conceived existence value, as was determined under PPG16-guidance. The quote below is used to emphasise this redirected focus.

> In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance.
>
> (Department for Communities and Local Government 2012, 30)

Potentially, a new opportunity has been afforded to the sector, by the changing emphasis made in PPS5 and subsequently, the NPPF. In both documents the archaeological resource (or heritage asset, as it is referred to) has evidently been accorded with a greater significance, as it now has a value that is not merely defined by the asset's physicality, but also by the understanding that can be conveyed through the potential mechanisms of intervention and interpretation. The expectation is also that both value and significance judgements are made relevant to audiences wider than the sector, or even the discipline. And in addition, the perceived threat is not one confined by a physical loss, but extended to an intellectual loss also. It is now the responsibility of the sector to create a greater use-value for data and evidences: a use-value that can be directly linked to the **potential** a heritage asset embodies (Forster 2012, 6; Southport Group 2011). Also, it is deemed significant, as the quote included below indicates, to maintain an awareness of how a heritage asset has the potential to serve a greater, transformative role within local communities; as well as delivering positive and sustainable benefits to wider economic, social, environmental and cultural developments.

> Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In doing so, they should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance. In developing this strategy, local planning authorities should take into account:
>
> - the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
> - the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
> - the desirability of new development making a positive contribution to local character and distinctiveness; and

- opportunities to draw on the contribution made by the historic environment to the character of a place.

(Department for Communities and Local Government 2012, 30)

Do the requirements laid-out above, allow us to now envisage an alternate potential of commercial investigations? Do they place impetus on the sector being able to construct meaningful narratives about the past? Is there recognition that the impact such narratives affect the present, as much as our ideas about the past? If this is the case, can this be achieved by placing emphasis on enacting a process historical enquiry rather than on generating a technical product? And would an 'inclusive' programme of archaeological exploration help enhance, both audience experience and the inherent value of place (Southport Group 2012, 4).

The terms **value** and **significance**, already referred to in this section, do require some further consideration, for they potentially have far-reaching implications. And at present the NPPF has only provided rather nebulous definitions. In the NPPF, **significance** is defined as:

> 'the value of a heritage asset to this, and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting'
>
> (Department for Communities and Local Government 2012, 56).

This suggests judgements of value and significance are now defined by the current knowledge and experience of archaeological remains, and an awareness of the contribution their 'investigation' can make to our lives and the places we inhabit. It would be plausible to assume that those working in the commercial sector would be responsible for defining the significance of individual sites. However, it is evident that the planning guidance expects these value judgements to consider and account for the opinions of others outside the sector, and this is likely to be achieved through instances of public consultation and the drafting of Local Plans.

> Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible.
>
> (Department for Communities and Local Government 2012, 32)

What these policy changes imply is how the sector, and its activities, needs to consider a range of stakeholder groups. Historically, in the planning process the stakeholders have been the archaeologists and the developer,

and many would argue this relationship has at times seemed rather imbalanced. The NPPF requires archaeologists to not only consider, but also to openly engage with, wider stakeholder groups, including the general public. This raises a number of issues worthy of consideration here, especially if we are to acknowledge the limited capacity (both financial and time-wise) within the sector to move to address these changes within their current capacity. In the following section these concerns will be raised, part in relation to a case study from the commercial sector, where wider stakeholder involvement has thrown up a series of additional considerations that invariably risked the advancement of the concept of archaeology for public benefit.

4.5.3 Developing publically accessible activity and outputs

PPS5 and subsequently, the NPPF both emphasise the importance of the mechanisms of enquiry (including archaeological decision-making, value-judgements and outputs) being publically accessible, and inferred how this was perhaps best achieved by engendering a collective exploration of the past, through the engagement of a range of stakeholders. As outlined in the previous section, the National Planning Policy Framework places emphasis on archaeological endeavour serving a greater purpose. A worthy response to this, would be a sector willing to rediscover, secure and capitalise upon exactly why it does archaeology – and be in a position to clearly define and promote the benefits of its work. It is possible that considering wider stakeholder groups could help the sector redefine its core principles and its key objective(s), as advocated for, across the discipline, and explored in chapter 2 of this thesis. Inclusive practice has the potential to add value to development, as well adding cachet to the commercial sector (Scanlon et. al. 2011, 66; Southport Group 2011, 23). The NPPF makes it clear that the archaeological endeavour, as a result of local, agenda-driven development, must account for, and respect the views of local people (Department for Communities and Local Government 2012, 30). Therefore, the sector is required to consider how meeting needs and expectations of different stakeholder groups can be adequately achieved. Raising the questions:

- What adaptations and/or accommodations to practice need to be made?
- Will such added considerations merely lead to a further position of disempowerment?
- Will, and should archaeologists ever ultimately drive the commercial archaeological agenda?

The English Heritage publication - *Power of Place* - quite correctly identified that the general public is not a homogenous group, but a diverse blend of people who have particular, and frequently divergent, opinions, ideals and experiences regarding the matter of heritage (English Heritage 2000, taken from Cumberpatch 2001, 2). Not only should practitioners recognise that public audiences vary widely, having potentially diverse concepts of the value of archaeological knowledge and heritage. And who may wish to engage with archaeological evidences and narratives through a network of routes, experiences and levels of appreciation.

But practice should also strive to incorporate those members of society who are most disadvantaged. Is it possible to aspire to reach out to those who traditionally do not access their heritage? Can any mechanisms of consultation and engagement ever aspire to be fully inclusive? Points to consider, moving forward, include:

- Who will decide what format public consultation or engagement would take?
- Who would be responsible for leading the consultation?
- What information will be utilised, and how will it be presented to the public?
- How will public views be collated, and how will they be accounted for, and evidenced within archaeological projects?

There is a real risk of wider public consultation and engagement becoming a mere add-on to existing operating frameworks, in which professionals automatically adopt a position of authority and the significance and value of the archaeological endeavour are simply defined and communicated (Fowler 1993, 8; Startin 1993, 185). There is also the potential for public consultation and engagement to become 'a battle for hearts and minds' (Grenville 1993, 132) – only engendering responses from those most emotionally affected by any proposed development or the archaeology, and simply overlooking those who perhaps seem indifferent. A further implication is that the sector will struggle to serve multiple masters – resulting in a situation where they further lose sight of the true purpose of their endeavour(s). Further questions to raise, as a consequence of these identified risks include:

- Whose values and interests will be respected and whose will be overlooked?
- What will be done about opinions that conflict with those of archaeologists and/or developers?
- How will they be reconciled? Or will they be merely 'airbrushed' out of the archaeological story?

Cumberpatch (2001, 7) warned that with public engagement comes a real risk of the sector becoming increasingly 'bland and uncontroversial', retreating back into comfortable models practice and convention unless such concerns are addressed. It seems above all the NPPF has presented the sector with the difficult task of managing a network of potentially conflicting expectations (from archaeologists, developers and vested-interest groups and individuals), whilst expecting them also to undertake projects which achieve outcomes that are of benefit to the discipline, as a whole. This suggests there is much ground-work still to be done to prepare and equip the sector for meeting the challenges set-out by the NPPF.

4.5.4 – Heslington East: A Case Study

It was deemed appropriate here to substantiate some of the concerns raised in the previous section, by using a case study example. Heslington East was a project led by the University of York. The development was the siting of a new University campus on green-field land (see Neal & Roskams 2013b). The project timescales straddled the transition period from PPG16, to PPS5 and then the NPPF, and alongside developer-funding, the project acquired monies from the Heritage Lottery Fund to undertake wider public participation (Neal & Roskams 2013b). It was decided the project would follow two strands: a commercial strand, conducted under the accepted methodological considerations of the sector, and a research strand, which adopted a wider community-focused methodology (see Neal 2012). Public participation involved the engagement of volunteers from the local community, who had informed the archaeologists about the things they wanted to learn about their local area (Neal & Roskams 2013b). However, for the most part public engagement took the form of local society talks, open days and site tours (see Neal 2012, 16).

The Heslington East project was quite unusual, in that the University of York represented both the developer, and the lead, commercial archaeologists. As a result, three separate communities (comprising the local residents, the University and the archaeologists) found themselves thrown together in what was viewed as a less-than-ideal situation. However, this situation did not appear to pose a problem for the archaeologists, as they felt their dual role could be easily separated-out, and as a consequence would not impact upon the success of the project (Roskams 2013, pers. comm.). However, it proved more of a challenge for local people to make the distinction between the developers and the archaeologists, and this became a significant problem when it came to the matter of their engagement (Roskams 2013, pers. comm.). Roskams, in a paper presented at the 2013 IFA conference, acknowledged how the Heslington East project effectively skirted-over conflicting public opinions, such as resistance to the development of a new University campus, on previously undeveloped green-field land (Neal & Roskams 2013a). Resistance was voiced through a number of terms: the loss of a special view over green fields from a kitchen window; the loss of a specific tree in the landscape; the unwelcome remodelling of a country lane leading to the local church yard (Roskams 2013, pers. comm.). All of these things, for local people, constituted the significance of place; and evidently this was a familiar place where local people had made their lives; it was a place local people had inherited; and a place they were expecting would be there forever. Through the archaeological investigations existed the potential to offer local people was a more intricate insight into what things, activities and people constructed and defined that particular place across history, and the archaeologists felt this enlightened, and in-depth appreciation would somehow mitigate against the loss local people felt, and had frequently vocalised. However, this was a somewhat misplaced assumption on the part of the archaeologists. It left the strength of resistance to the development remaining unacknowledged, nor addressed by the project, or project staff out-right. Consequently, local people felt the investigations and the archaeologists were in fact ignorant to

the strength of feeling over their perceived loss: ultimately they were left feeling overlooked. It became evident from talking to one of the Project's lead archaeologists that many opportunities for a truly successful and beneficial public engagement strategy had not been sufficiently capitalised upon (Roskams 2013, pers. comm.). What could be viewed as a final insult for the local community was when a glossy pamphlet (paid for by the HLF monies, but undoubtedly serving as a PR exercise for the University), failed to acknowledge the value of the landscape lost through development. Choosing rather to emphasise the ecological gains brought to the area by the extensive planting of indigenous woodland species around the new campus (see Neal & Roskams 2013b).

Issues such as those outlined above are not isolated to this case study. And archaeologists (particularly, but not exclusively, those working in the commercial sector) are at real risk of continuing to mismanage any efforts of public engagement. It is important to remember that archaeologists come into a community and a landscape as the outsiders, they temporarily occupy that landscape, with the intention of transforming their knowledge of it (Skeates 2000, 86). Sometimes what they overlook is how their actions also have the potential to transform the resident community, and their perceptions of the place in which they live. The developers also adopt a similar role: they too irreparably transform the present landscape and as a consequence, the community. To overlook the impact of such actions is truly misguided. Conversely, however archaeologists do not necessarily anticipate requiring skills in conflict management, when they agree to undertake developer-funded investigations. That said, with an increased emphasis on public consultation, engagement and participation, the archaeological endeavour should always consider how it can positively impact upon a community and/or individuals, particularly those who are against any proposed development. Mitigating archaeological loss and mitigating public loss are frequently seen as conflicting objectives. The public perceive a loss of the current value they attach to a place, which is part-and-parcel of their inhabitation of that place in the here and now. The archaeologists perceive a loss of potential knowledge of the past, and all too frequently anesthetise themselves against justifiable, but conflicting perceptions of loss from those outside the discipline. Archaeological investigations should be utilised to their maximum potential whilst maintaining realistic aspirations. They should prioritise cohesion in engagement, and in doing so acknowledge differing perspectives: present conflict over an area under development is as much a part of the historicity of a place, as the in-ground archaeology.

It is plausible to consider how the sector finds itself at real risk of entering into a 'value lottery'. Where it becomes unfeasible to account for the extensive and diverse attributions of value, represented by the innumerable vested-interest groups. Though this does not mean they should not stop aspiring to do so. Can a life with archaeological knowledge, but without what made a place significant in the present be a

commensurate pay-off? The East Heslington case study has shown how there is a need to tread ever more carefully when contemplating a future of archaeology with public benefits. What those working in the sector must consider is when they have finished their interventions, and ended their temporary occupancy of a place, what legacy have they left the community who remains? Participation in excavations, open days and site tours each have their benefits, but they are somewhat temporary, and are likely to benefit a small portion of any local community. In fact, research undertaken by HLF, at the advent of the NPPF, failed to quantify or qualify the value and benefits of heritage participation to communities (see Maeer et. al. 2012). As the requirements of the NPPF are reconciled with existing sectoral practice it will be interesting to discover the ways it defines public benefits, who within the sector will set such agendas, and who will define the criteria against which the terms **value**, **significance** and **benefit** are measured? There have been repeated warnings from the wider discipline suggesting mismanaged strategies of public engagement may risk merely engendering passive audiences (Parker Pearson 1993, 226): audiences who are simply informed as to what the value, significance and benefits are (Startin 1993, 185). If an active, participatory role was adopted in demonstrating the value and benefits of their endeavour to local people (Forster 2012, 6), then it would be possible to create **users**, and not just **audiences**. And the transformative benefits of historical enquiry should be the legacy we can bestow upon present communities.

4.6 – Concluding Remarks

In light of the shifted focus represented by the NPPF, and outlined above, the deferral of understanding and interpretation (as arguably was the case under PPG16 regimes) is no longer viable. It should no longer be assumed how knowledge can be quantified and/or qualified by a mere technical appreciation of a heritage asset. In practical terms this implies the production of knowledge should supersede the production of record (Southport Group 2011, 9). This reversal of emphasis has huge implications for the nature of investigative practice in the commercial sector. To quote directly from the NPPF 'the ability to record evidence of our past should not be a factor in deciding whether such a loss should be permitted' (Department for Communities and Local Government 2012, 32). The challenge now is to transform the mechanisms of knowledge production through archaeological interventions, as well as audience participation – by making the best use of the opportunities afforded by development to explore the past. The sector should always be able to continue to make adequate provision against the threat of development, as undoubtedly a mitigative imperative still exists. However, the role of archaeology within the planning process should now place clear importance on exploring, enhancing and sharing the value and significance of the heritage asset, regardless of whether or not the asset is to be adversely affected by development.

The key questions arising from the discussion have been:

1. What would a revised emphasis on the greater significance of archaeological knowledge, both its production and the subsequent transformative role it can play for societies, mean for pre-existing strategy and practice within the sector?
2. How can we make sufficient provision for the public benefits of archaeology, within developer-funded interventions, whilst also advancing disciplinary research objectives?

It would be foolhardy to assume little has changed since the PPG16-era, with the introduction of PPS5 and subsequently the NPPF. What has been demonstrated above is how there is a genuine need to re-establish the key objectives of developed-funded investigations, as well as a need to define new and realistic expectations. What has been concluded is that it is necessary for the sector to re-establish the relationship between the in-ground resource, and the investigator, as well as redefining the means of investigation. Presently the relationship between in-ground resource and investigator came about as result of a particular set of circumstances, principally controlled by the inertia of development, and not by any fundamental disciplinary objective. It is possible to reduce this relationship down to the somewhat restrictive and inflexible operating knowledge currently in play. At present data and knowledge can be shown as merely further informing future planning decisions. It has never been construed as having the potential to produce histories, nor to transform people and places in the present. To continue along this path will invariably lead the sector to be at the mercy of developers, and the development process. The emergence of revised planning policy guidance, first through PPS5 and subsequently the NPPF, has provided the impetus for a clear and broad commitment to change. As emphasised previously, it has been increasingly important to recognise the revisions to planning guidance as a second chance for the sector (and the discipline as a whole). Presenting an opportunity to redefine the purpose to the work undertaken, to learn from new opportunities, and to generate understanding through the act of enquiry. This would allow the sector to recapture the importance of discovery, as a means of critical engagement with people, places and narratives, past, present and future. If carefully orchestrated, the investigative process has the potential to advance disciplinary understanding, and also engender a greater wellbeing for communities and places, through the shared discovery and creation of historical knowledge.

Chapter 5: Characterising Projects which aim to realise the Utility-Value of Grey Literature

5.1 - Introduction

The preceding chapters of this thesis have served to present, and deconstruct a particular problem. These remaining chapters will further explore, and test the issues defined previously. Wherein, by accepting the limitations of current field methodology and acknowledging the limited utility of both the data and resultant grey literature, derived from such methodologies, then it may be plausible to assume any interpretative narratives generated also may be potentially curtailed. The format, the content and the conditions of creation, imposed by such methodologies upon data sets, as outlined previously, in chapters 3&4, could prove to be the cause this interpretative curtailment. In this chapter it is the intention to focus upon, and characterise a number of projects that have sought to create interpretative narratives and/or research frameworks through the use of the grey literature resource, and commercially derived data-sets.

It has already been briefly noted how over the last two decades increased attention has been given to the use and integration of grey literature into emergent interpretative projects. There are possibly a number of reasons for this and these are to be explored here. Some of these projects (including a number of those I have chosen to focus upon in this chapter) are a clear response to a grey literature crisis; as such they attempt to tackle the ever-increasing volumes of grey literature produced by developer-led archaeology. An implication with many of these projects is that their value and measure for success is inextricably linked to the volume of data available – i.e. a greater volume of data equates to better opportunities for synthesis and/or interpretation (see Cooper & Green 2016; Fulford & Holbrook eds. 2015; Green 2013; Ten Harkel 2014). Other projects have been developed to address concerns regarding the questioned use-value of grey literature (for example Bradley 2007). Whether the responses themselves are commensurate to the 'explosion of data', felt as a result of increased developer-led activities is not necessarily of central importance to this chapter. What is more important is how an analysis and characterisation of these projects can provide a snapshot of the current methodologies employed, and resultant narratives produced when consideration is given to the inherent value of grey literature. Therefore, it is necessary to explore whether these projects do indeed orientate the discipline towards a more positive outlook, where interpretative 'weight' is apportioned equally to developer-led findings as well as to those generated through more tradition research activities.

It is important to acknowledge at this juncture that the piecemeal integration of grey literature and the results of developer-led archaeology into new interpretative schema and synthesis publications has been commonplace for a number of decades. And although these uses of grey literature should not be downplayed,

nor discounted it will not plausible here to characterise every possible example of the use of grey literature in interpretative projects, as this would undoubtedly prove to be an impractical endeavour for a single PhD thesis. It was felt necessary here to rather choose to highlight a number of key projects that have emerged either as specific responses to the grey literature crisis, or those that have definitively set-out to extensively integrate newly sourced data, including that reported upon in grey literature resources into re-interpretations or re-imaginings of specific geographies or time periods in England.

The characterisation exercise, and subsequent analysis proposed here, and presented in the following two chapters, will explore the depth of engagement with, and influential role of, grey literature within a selection of projects, whose inception (for the most part) is primarily driven by the aim of integrating grey literature into wider, synthetic narratives. The purpose of undertaking an analysis of these projects, is to question whether the level of engagement with grey literature adopted by the project authors is conditioned solely by the objectives of the individual project – or whether it is conditioned by the nature of the grey literature resources utilised – or indeed whether both have a potential effect on the level of engagement? The chapters will present ideas as to what extent the content, format, and organising principles applied to data in grey literature is readily accepted by these users / researchers, when aiming to incorporate the data into new interpretative schema. What is also of interest to this study is the extent to which, as Wylie and Chapman (2015, 15) argue should be the case, any re-engagement with data from resources such as grey literature includes a critical historiography of the conditions of that data's production. By using grey literature sources do the projects expose any differences in the perceived- or realised-value of data derived from differing contexts: i.e. research vs commercial? Do the authors of the projects perceive and espouse similar utility-values for grey literature?

As a brief aside, I would like to tease apart the concept of **value**, and begin to define the terms I have used above, as well as others which have bearing upon the following study. These include: perceived-value, realised-value, use / utility-value, relative value and intrinsic value. A generic definition of the term **value** is a judgement or regard held pertaining to importance, worth or usefulness based on certain principles or standards. Value can be a laden term, used within the archaeological discipline as a measure of significance. In chapter 4 I explored how value judgements are being instigated in the management of the heritage resource, through the implementation of the National Planning Policy Framework in England. Value, it seems is inherently intertwined within the practical and interpretational aspects of archaeological undertakings. In order to further this study and discussion into the use and integration of the grey literature resource, it is necessary to establish how these resources are currently valued, and consider the nuances between the differing value concepts listed above.

Perceived value – implies a belief held in the mind of the user, and includes perceptions which frame the things potential use. For this study perceived value is articulated by the user, often prior to the act of use – and is expressed in terms of expectations regarding the outcome of such use.

Realised-value - is a judgement grounded in use, which is measured against a particular outcome. For this study the realised value materialises from how grey literature is used and what is produced and/or achieved through its use.

Use / utility-value – denotes some form of application in order to realise a things value. For this study use/utility value relates to the application of data in the grey literature resource.

Relative value – denotes a subjective judgement based on comparative indicators and is dependent upon the conditions of use. i.e. use achieves a comparative appreciation, and value is understood when judged in the binary framework of similarity / difference.

Cumulative value – denotes a subjective judgement based on successive / aggregated indicators and again is dependent upon the conditions of use. i.e. value is accumulated and realised when use transforms evidence from partial (individual) to a whole (cumulative).

Intrinsic / inherent value – a judgement or truth that value is inherent in the object or fact itself. This judgement can be held independently of any subsequent use.

Considering how, and why the grey literature resource is valued in the various projects intended to be studied here is crucial to understanding the mechanisms by which the projects are conceived, undertaken and realised. The various expressions of value, as outlined above, may help explain why projects choose to use grey literature, how they approach using grey literature and in what ways this use influences the project outputs. These value concepts will be revisited and explored further throughout the following two chapters.

5.2 - Methodology

In order to address one of the research questions posed in the introduction to this thesis, I will characterise the types of projects that have sought to utilise grey literature in order to formulate interpretative / synthetic narratives of a given geography, or chronological period. What follows this characterisation chapter is a more in-depth analytical and technical commentary of a select number of those projects (in chapter 6). The whole methodology comprises:

1) Project Selection (inclusive of all projects selected)

   This is given in table 2 and shows the project titles, authors, dates, funding information, periods and geographies covered, publication status and a summary of the key bibliographic sources.

2) Project Characterisation (inclusive of all projects selected)

Providing a discursive and comparative summary of the key features each of the projects, and including an assessment of the:

a. *Publication genres represented*.

Aim: To test whether it is possible to establish consensus definitions for the differing publication outputs (based on Connah 2010) and whether the authors have 'traditional' expectations regarding their approach and potential output (see Darvill & Russell 2002).

b. *Stated reasons for the project's inception*.

Aim: To establish how each project emerged, whether as a consequence of a particular fieldwork project, or influenced by a particular research aim, or as a direct result of an increased data-set? Thus is the project a direct response to the grey literature crisis?

c. *Project structure and organising principles* - focusing on the chapter structure and themes adopted.

Aim*:* To establish which categories of evidence inform the interpretative schema of the project, and thus how the author intends the narrative to unfold. Further to this question whether the structures employed are contingent upon those derived from field methodology, as proposed by Thorpe 2012 & Bradley 2006.

d. *Project aims* – the analysis of the methodological approach and language used in the introductory sections of the texts.

Aim: To establish how the authors have chosen to situate their project, and assess whether the aims for the project are commensurate to its genre.

e. *Quantification of grey literature sources used in projects*, examines the ratio between commercially derived data / reports and academic publications.

Aim: to establish a broad appreciation of the level of engagement with (and potential influencing role of) grey literature in each project.

3) Focused Project Analysis (three selected projects)

In order to define and analyse the use and subsequent influencing role of grey literature chapter 6 will seek to build on the information gleaned from the project characterisation, and further pose the following questions:

1) How are data selected for inclusion, and subsequently used?

2) How much priority is given to grey literature?

3) Which interpretative invention level typifies the author's main access point to the archaeological record?

The scope of this methodology allows a rounded appreciation of the use of grey literature to be gained, for a range of project contexts. The approach has been appropriately 'scaled' to enable a greater depth of analysis into the mechanisms employed and decisions made, with the use of grey literature, and assess the impact and viability of its subsequent usage.

5.3 - Project Selection Choices

The following nine projects were selected for further study.

- The Archaeology of Wallingford
- Thames through Time: The Archaeology of the Gravel Terraces of the Upper & Middle Thames (Later Prehistory)
- Bronze Age Field Systems in Southern England
- The Prehistory of Britain and Ireland
- The Towns of Roman Britain
- EngLAID: English Landscapes and Identities Project
- Upper Thames Valley Pilot Project
- The Archaeology of Chesterfield
- ScARF: Scottish Archaeological Research Framework

(NB: Key bibliographic references consulted for each project are provided in *table 2*.)

This selection represents a broad range of project types, which not only have the potential to offer a diverse range of insights into the use of grey literature, but which also may shed light on the influential role grey literature can have within differing interpretative contexts. The narrative form and scope is likely to differ between the chosen projects, as will the circumstances of the projects' inception. Also of consideration are the domains in which the projects' results gain credibility, and the audiences who are likely to engage with the publications. These projects are at various stages of inception and/or completion at the time of writing. The decision to include incomplete projects allows an evaluation (both benefits and limitations) of not only the final publication of completed projects, but also the 'working', interim documents generated by ongoing projects. This gives access to both the project outputs, as well as the methodological processes employed, to enable sufficient breadth of characterisation. Jonathan Last, of Historic England assisted with the process of project selection, by suggesting key projects that provided the best-fit for the research requirements (J. Last, 2014, pers. comm., 12th Nov). The information contained in *table 2* includes basic information about each project, such as: the project titles, main authors, project duration dates, funding information, periods and geographies covered, publication status and a summary of the key bibliographic sources. I will draw upon this summary information throughout the remainder of the chapter.

Project Title	Key Author(s)	Summary Information	Project Duration and Publication Date	Periods / Geographies Covered	Funding Source	Key Bibliographic References	Current Project Status (as of 2016)
The Prehistory of Britain & Ireland	Richard Bradley Facilitated by Research Assistant: Tim Philips	Academic Research Project, with emphasis on published output (popular textbook). Project involved the synthesis and distillation of commercial outputs to supplement and/or challenge traditional perspectives. Aims to present a revised broad landscape narrative, with focus on case study detail.	Published 2007 Project duration (2004 – 2006)	Prehistory (Palaeolithic / Mesolithic – Iron Age) Covers Britain and Ireland	Funding from AHRC, English Heritage, Historic Scotland and University of Reading	**Main:** (Bradley 2007) **Supplementary references:** (Bradley 2006a); (Bradley 2006b); (Bradley, Haselgrove, Vander Linden & Webley 2016); (Webley, Vander Linden, Haselgrove & Bradley 2012)	Completed and published
Thames Through Time (Later Prehistory)	George Lambrick Supported by Mark Robinson Tim Allen	One of a series, comprising a set of three archaeological monograph publications, whose focus is on chronological and thematic, geographically specific synthesis as output. Individual publications aims to complement others in series.	Published 2009	Series covers 3 period groupings – Early Prehistory, Later Prehistory & Historical Period. (NB: analysis focused on Later Prehistory publication). Covers Upper and Middle Thames Valley Gravel Terraces (primarily results of work undertaken through aggregates extraction)	Funded by Aggregates Levy Sustainability Fund	**Main:** (Lambrick & Robinson 2009) **Supplementary references:** (Morigi, Hey & Lucas 2011); (Morigi, Schreve & White 2011)	Completed and published
The Archaeology of Chesterfield	Chris Cumberpatch Reuben Thorpe	'Grey' Pilot Study Report (not formally published). Project involved assessment of potential of a localised geography. Ultimate value of project measures in terms of concluding proposals. Anticipated	Pilot Completed in 2002	Evidence considered extends from Iron Age to post-Med, however primarily focus on Roman.	Study Commissioned by English Heritage.	**Main:** (Cumberpatch & Thorpe 2002) **Supplementary:** (Thorpe & Cumberpatch 2005); (Thorpe 2012)	Completed and published

		limited circulation outside of specialist field.		Covers Town of Chesterfield (North Derbyshire).			
English Landscapes and Identities Project (EngLAID)	Chris Gosden (lead) Tyler Franconi Letty ten Harkel Anwen Cooper Chris Green Miranda Creswell Dan Stansbie Sarah Mallet Victoria Donnelly John Pybus Xin Xiong Laura Morley	Project aspires to present a broad temporal and geographical synthesis of English landscape. Project activities currently recorded via website and numerous published journal articles. Expected output to be publication presenting a Long term historical narrative of landscape development, characterised by a series of case studies. Further anticipated output: create an interrogative tool for researchers	Project Inception 2011 (expected to finish 2016)	Multi-period (inclusive of Prehistoric and Historical periods) England-wide	Funded by European Research Council Funding	**Main: URL:** https://englaid.com/ **Supplementary:** (Stansbie & Mallet 2015); (Gosden, Cooper, Creswell, Green, ten Harkel, Kamash, Morley, Pybus & Xiong 2012); (Cooper & Green 2015a); (Cooper & Green 2015b); (Kamash, Cooper, Green, ten Harkel & Morley 2014); (Green 2013); (ten Harkel, Gosden, Cooper, Creswell, Green & Morley. 2012)	Ongoing, part-published.
The Archaeology of Wallingford	Neil Christie Oliver Creighton Matt Edgeworth & Helena Hamerow	Archaeological Monograph Publication. Project narrative focuses on synthesis of new research activities, together with existing archival material. Aim to presents a first 'biography' of the Wallingford townscape.	Published 2013 Project Duration 2001 - 2011	Predominately Medieval AD800 – AD1400, with inclusion of Late Iron Age to Saxon (pre-town activity). Covers Wallingford Town (South Oxfordshire)	Pilot Work funded by British Academy, Medieval Settlement Research Group and Royal Archaeological Institute. Core Project funded by AHRC.	**Main:** (Christie, Creighton, Edgeworth & Hamerow 2013). **Supplementary:** various – including (Creighton, Christie, Hamerow & Edgeworth 2009)	Completed and published
The Towns of Roman Britain	Michael Fulford and Neil Holbrook (eds.) Plus, contributions by Paul	Monograph of Conference Proceedings Period specific national synthesis project (resulting from a conference) on towns of Roman Britain. Part of a large assessment on the contribution of GL to Roman	Project Duration 2010-15	Britain-wide. Roman Period.	Funded by English Heritage	**Main: (**Fulford & Holbrook 2015) **Supplementary:** (Fulford & Holbrook 2011); (Fulford, Holbrook, Morton & Hardman	Complete and published.

	Birdwell, Stewart Bryant, Mark Malby, Patrick Ottaway, John Pearce, Dominic Perring, Mark Robinson & Roger Thomas	Archaeology in England (links to Roman Rural Settlement Project). Area / thematic specialisms and contributing articles provided by both academic and commercial archaeologists.				2012); (Holbrook & Morton 2011)	
Upper Thames Valley Pilot Project	Wendy Morrison Chris Gosden & Roger Thomas	Project represents a spatially defined landscape synthesis. Focus on the generation of a landscape narrative – derived from a synthesis of sites. Presently only a series journal articles have been published.	(Project Duration 2012 – 2014)	All periods (study inclusive of all interventions, regardless of chronology) Covers Upper Thames Valley.	Funded by John Fell Trust	**Main:** TBC **Supplementary:** (Morrison, Thomas, & Gosden 2014), (Thomas, Morrison & Gosden 2015); (Thomas 2013).	Completed, numerous discursive papers published.
Bronze Age Field Systems in Southern England	David Yates	Research synthesis, focusing on specific chronological, geographical and evidential categories. Published as an academic publication (book)	Published in 2007.	Bronze Age Lowland England	Based on PhD research (University of Reading) – publication supported by English Heritage funding	**Main:** (Yates 2007) **Supplementary:** (Yates 2012);	Completed and published
Scottish Archaeological Research Framework (ScARF)	Jane Downes (ed.) Plus, a panel of various authors	ScARF – encapsulates the current state of knowledge of Scotland. A 'datum of achievement'. Serves as a Research Framework, multi-disciplinary, multi-authored and peer reviewed. Intended to steer research activities and funding.	Published in 2012 (but document 'live' and constantly revised)	Various chronologies covered in separate reports (NB: analysis focuses on BA – Roman Period). Scotland-wide	Funded by ScARF (Including Society for Antiquaries of Scotland, Historic Environment Scotland and National Museums Scotland).	**Main (URL)** http://www.scottishheritagehub.com/ **Supplementary:** (ScARF 2012b)	Completed and published online.

Table 2: Project Summary Information

5.4 - Project Characterisation

The project characterisation was completed by analysing the explanatory and introductory statements for each of the projects, which established an understanding of the intentions of the authors and their overall aims. Of particular interest was how the projects and the approaches taken by the authors differ, as well as whether it was possible to identify any fundamental similarities. For these reasons it was decided not to group the projects from the start. This would have undoubtedly introduced potential bias, and may have disguised certain cross-grouping similarities and differences. The characterisation exercise revealed the opinions expressed by the authors, their expectations and adopted principles which in turn shaped the nature of the projects. The exercise also exposed the proposed mechanisms by which the projects were coordinated and defined. Any interesting and revealing literary and methodological features that may have direct relevance to the more in-depth analysis of a small sample of projects have been identified, although they are explored in further detail in chapter 6.

The study which follows begins with discussing breadth of **publication genres** represented by the sample, this enables an evaluation of the general expectations of each genre. The study then establishes the key principles which shape the **project's inception**. This is followed by an identification of the differing **organising principles** employed to structure the project publications. The **aims and expectations** for each project are then characterised by studying and categorising the use of explanatory and/or methodological language in the introductory and methodological chapters. And finally, a quantification exercise was performed and the results tabulated, which identified the number of **grey literature sources referenced** within each project bibliography. This task establishes how the authors began to mobilise and prioritise the inclusion of grey literature sources within their overall project schema.

5.5 – Assigning Publication Genres

Just as with any subject or discipline which generates literary outputs, the archaeological discipline adheres to a number of recognised and accepted publication genres. These genres are categories of publication type, categorised according to how disciplinary consensus dictates the expected format (and often also the content) of such publications. Using publication genre categories derived from Connah (2010), the projects (as outlined in table 2) can be grouped as follows:

The Archaeology of Wallingford and Thames through Time are both *synthesis monographs*.

Bronze Age Field Systems in Southern England can be characterised as a *research monograph*.

The Prehistory of Britain and Ireland is a *scholarly synthesis*, published in the form of a popular textbook.

The Towns of Roman Britain is a *conference monograph* – containing a series of edited papers originating from conference proceedings, published as part of a monograph series.

English Landscapes and Identities Project (EngLAID) is, at the time of writing, represented by a series of *journal articles*, however its final publication is anticipated to take a number of formats. The methodological approach for the Upper Thames Valley Pilot Project is reported upon via an *online journal article*. As yet, there is no full publication of the project results.

The Archaeology of Chesterfield is a *research report*.

ScARF does not fit within the categories, as defined by Connah (2010). However, it can be categorised as a *research framework*, a publication type whose purpose is to benchmark the current state of knowledge of a particular geographical area.

(NB: Key bibliographic references for each project listed here are provided in full in *table 2*.)

As the exercise above has shown, the nine projects represent a diverse range of literary genres, with their inception, and any objectives imposed by their funders (see *table 2*) potentially posing distinct expectations. Why are distinctions between literary genres important? The nature of the literary genre (as deployed in archaeology specifically) is influenced by the intended readership and perceived influential role of the narrative. The chosen genre may itself influence not only the project scope, but also the methodologies adopted, as well as any proposed outcome. It could be argued that both the author and the reader hold certain expectations relating to the purpose and product attributed to particular genre forms (see Connah 2010). Such expectations imply, for example, that readers anticipate a *scholarly synthesis* to present new knowledge, or at least make a positive contribution to disciplinary advancement, whereas a *research monograph*, although seeking to advance disciplinary research, is likely to be the result of the handling vast quantities of data, possibly adopting a structure which mirrors its source material, with its content attending to the interests of a more specialist audience. A *conference monograph*, comprising a series of edited papers typically has a unifying theme, and can often serve to present up-to-date knowledge. A *journal article* (particularly those addressing archaeology as a humanity, as opposed to a science) can be viewed as a useful way of affirming originating authority over new or emergent ideas (Connah 2010, 48 - 54). It has been further implied how particular literary genres by their very nature are inherently formulaic; produced and thus required to operate within certain socio-political contexts; employing specific emplotment devices or rules to maintain their particular status; and structured in order to craft a particular outcome (Connah 2010, 62; Pluciennik 1999, 654; Tilley 1989b, 40 - 46). Understanding fully how particular genres, through the

expectations of the product and anticipated readership, accommodates grey literature is of particular interest to this study. What Connah's (2010) definitions have provided this characterisation exercise with, are a series of 'benchmark' expectations. These benchmarks will enable a further exploration as to whether each of the nine projects espouse and maintain traditional expectations associated with their genre-type. The discussion is framed around a basic analysis of the language used in the introductory texts – and is explored later in section 5.8.

5.5.1 – Positioning 'Synthesis' as a Publication Genre

The intention here is to further unpick the term **synthesis –** and in the spirit of Connah's work, create a comparable 'benchmark' relating to the broader concept and genre of synthesis in archaeological writing. This brief exercise will outline a definition and formulate benchmark expectations, which will be tested, later in the chapter. The purpose of exploring the term synthesis, is to test an assertion that it can serve as an umbrella term, relevant to each of the nine projects studied (regardless of their assigned literary genre). Distinctly offering the opportunity to attain an overarching consensus of expectation, approach and potentially of output. A framework is used to enable an exploration of the judgements and conventions attributed to a synthetic process. Judgments and conventions which have the potential to predetermine the use of grey literature in the nine projects studied.

In the Oxford English Dictionary, the given definition for the noun **synthesis** is a 'combination of components (or ideas) … to form a connected whole'. The concept of synthesis refers directly to an anticipated output (i.e. the whole), as well as any proposed approach (i.e. to combine components and/or ideas). Synthesis is arguably itself a recognised literary genre in archaeology and it transcends the more specific genres highlighted above. This is because each specific genre can also in fact be a work of synthesis. It is plausible to classify each of the nine selected projects under a synthesis genre. However, the details pertaining to exactly how a work of synthesis engages with fragmentary sources of evidence is not necessarily clear cut and thus, potentially open to debate. A work of synthesis expects to assemble a range of source materials and seek comparator evidences to validate a narrative framework. Essentially synthesis constitutes a connective and integrative study. Synthesis also aims to review evidence, based on predetermined expectations. Arguably, a work of synthesis work seeks coherence, and achieves this by assigning a comparative status to chosen evidence (see Bradley 2012; Connah 2010; Hicks 2008). To date however, beyond the broader expectations outlined here, there exists little reference to, or examination of, the efficacy of archaeological synthesis as a process, nor any definitive critique of the synthetic process or the resulting product. Hick (2008) argues that the skills of synthesis remain both untaught and undervalued in the archaeological discipline.

Following Connah's (2010) categorisation of literary genres, the task of formulating a set of expectations relating to a work of synthesis is perhaps not as clear-cut as first anticipated. Although this discussion began with the aim of formulating a definition and benchmark expectations for a work of synthesis, this aim remains only partially complete. This is due to the absence of a consensus definition for the concept of synthesis in the archaeological discipline. It would be all too easy to utilise the earlier statement - *a work of synthesis is expected to assemble a range of source materials and seek comparator evidences to validate a narrative framework* – however, this falls short of explaining both the what and how of the synthetic process. It also fails to provide an adequate benchmark statement against which to measure the expectations of works of synthesis. Halpern (2003) and Krathwohl (2002) both suggest the process of synthesis incorporates a utilisation of higher order skills: skills of the cognitive domain, as well as those of critical thinking.

In order to continue this discussion, it will be necessary to explore the methodological expectations of a work of synthesis, which is undertaken later within this chapter and also in chapter six. The studies will question: to what extent evidences are analysed (as opposed to merely replicated) within a work of synthesis? Whether it is a necessary part of the synthetic process to investigate the original conditions of production / inscription of selected evidences? Answers to these questions should allow for a fuller appreciation of the concept of, and processes involved in authoring a work of synthesis.

In summary it has been identified that the projects studied represent 7 specific types of publication genres (as categorised according to Connah 2010). Though it has also been postulated how all could be categorised under the umbrella genre of **synthesis**. The nuances and tensions which undoubtedly exist between the influence of the publication genre, the deployment of grey literature sources, the intentionality of the author and the resultant narrative(s) produced will only make sense in the context of a fuller characterisation. How the genre influences other aspects of a project will be explored further, in the concluding sections of this chapter. Furthermore, as discussed above, the implication of the concept of synthesis and any associated methodological expectations will remain foregrounded throughout. The next section aims to characterise the stated reasons for the projects' inception. This task will seek to establish how each of the projects emerged, and will identify and classify any underlying principles at play.

5.6 - Establishing the Reasons for the Project's Inception

There are many factors which may influence the inception of a project seeking to utilise grey literature resources. The following exercise identifies the stated reasons for inception for each of the nine projects

selected, through studying and distilling the authors' statements, as well as acknowledging the associations and implications of their respective funding sources (as identified in *table 2*). The study has sought to draw-together projects with recognisable commonalities in declared influencing factors, in order to classify the projects and enable a broader discussion of the findings.

5.6.1 - Projects Influenced by Practical Considerations

> *The Archaeology of Chesterfield* - influenced by emerging policies regarding the access to archival data, and a recognition of the untapped potential (and poor accessibility) of a growing body of commercially-derived evidence relating to an area's heritage resource, highlighted by recently compiled Research Frameworks (Cumberpatch & Thorpe 2002, 8).
>
> *ScARF* - influenced by a coordinated, nationwide endeavour to define the current state-of-knowledge regarding the archaeological resource in Scotland and its potential (seeking to provide a 'datum of achievement'), as well as prioritising methodologies to address perceived gaps in that knowledge and ensuring such research methodologies are 'appropriately and economically directed' (ScARF 2012a; Last 2012, 133).

The above statements indicate how both The Archaeology of Chesterfield and ScARF have been influenced by the emergence of policies and/or practices, directed at enhancing the domains within which commercially-derived data-sets gain their use-value. The underlying need expressed by the projects' respective authors stems from essentially **practical and / or logistical considerations** (see Pearson and Shanks 2001, 32). This claim is supported by the funding secured by each project – The Archaeology of Chesterfield was a pilot project funded by English Heritage (Cumberpatch & Thorpe 2002) and ScARF was jointly funded by Historic Environment: Scotland and Museums Galleries Scotland (ScARF 2012a). These are all national heritage sector organisations. For both projects the potential value of the data held within grey literature is seemingly never in question and only serves to validate the project's endeavours.

5.6.2 - Projects Influenced by Obligation

> *The Towns of Roman Britain* - influenced by the perceived absence of a 'research dividend' in developer-funded investigations and highlighting the distinction between value-for-money and academic rigour – the former an inevitable consequence of the commercialisation of the archaeological process, though the latter lacking in most developer-funded outputs. A view maintained and reinforced by a belief that a synthesis of grey literature reports, can expose the latent research value of commercially-derived data and allow archaeologists to continually review and revise their research aims – in this particular instance those relating to Roman Towns (see Fulford & Holbrook 2011, 342; Fulford et. al. 2012, 2-3; Fulford & Holbrook eds. 2015).

Upper Thames Valley Pilot Project - influenced by the perceived absence of responsibility to continue to synthesis and integrate new data (such as those derived from developer-funded investigations) into wider archaeological narratives (Morrison, Thomas and Gosden 2014).

Both The Towns Roman Britain and The Upper Thames Valley Pilot Project prioritise discourse pertaining to threat and loss (see Shanks 2012). In this instance, the diktat of threat and loss relates directly to the perceived shortcomings of the interpretative and/or research components of commercially-derived data-sets. The authors align the reasoning behind their projects inception to a transactional process - what Wallace terms 'substitute compensation' (Wallace 2004, 24). Both projects construct a **sense of obligation** to validate their use of grey literature (Aitchson 2010, 295), and by doing so reinforce the foundational principles of developer-led archaeology. For these projects this sense of obligation is directly related to a desire to legitimise the use-value of grey literature (see Roth 2010, 337). The Upper Thames Valley Pilot Project attracted Trust funding – designed to further research activities in the humanities. The Towns of Roman Britain Project secured funding from English Heritage – to enable further testing of the contribution of commercial undertakings to the knowledge and understanding of the nation's heritage resource. It is interesting to note how this sense of obligation, to further enhance commercially-derived data-sets is driven primarily by cross-sectoral collaboration – through both the broader academic domain (both Fulford, Gosden and Morrison are university staff) and the heritage sector (both Thomas and Holbrook work in this sector). Does this approach go some way towards ameliorating the perceived divide between the tasks of archive production (a commercial output) and narrative creation (the research dividend)?

5.6.3 - Projects Influenced by the Concept of Precedence

The Prehistory of Britain and Ireland - influenced by an increase in 'new data' generated by developer-funded investigations; a legacy of reliance upon over-cited case studies; and a perceived 'failure' in the integration of new knowledge into regional and national narratives (Bradley 2007, xv – xvi)

Thames through Time - influenced by the quantity, quality and breadth of evidence available (much generated through investigations carried-out prior to aggregate extraction) to enable the authors to undertake a major review of later Prehistoric societal development and change, to integrate discrete bodies of evidence, to challenge traditional definitions and to achieve a finer chronological narrative (Lambrick & Robinson 2009, xiii). *NB: the methodology is mirrored by and continued from the previous publications in the Thames through Time series. See Morigi, Hey & Lucas 2011; Morigi, Schreve & White 2011.*

EnglaID - influenced by the exponential increase in commercially-derived data-sets and their potential to contribute to broader, research-driven nationwide chronological narratives, and as a consequence raise the academic profile of such data-sets (Cooper & Green 2016, 277; Ten Harkel 2014).

Bronze Age Field Systems in Southern England - influenced by the potential realised through research undertaken for a doctoral thesis – which sought to address the inequalities in understanding between low- and upland Bronze Age field systems, and the potential to achieve this revised perspective by capitalising upon grey literature reports (Yates 2007, 13).

This assessment has indicated the most common influencing factor on a project's reasons for inception is the **concept of precedence**. This is evidenced by the stated reasons for The Prehistory of Britain and Ireland, Thames through Time, EngLAID and Bronze Age Field Systems in Southern England, as outlined above. Each project aims are weighted heavily towards a concept of precedence. Characteristics identified as being common to each of the four projects identified above are 1) perceptions regarding the inequality of the current position (i.e. importance placed on one particular type of data-set over another), 2) the prominence given to 'new data' to legitimize the revision of a concept or a narrative, and 3) the emphasis on a 'break with tradition' to assert status, and steer the trajectory of the revised or emerging narrative (see Pluciennik 1999, 654). Tilley states that the concept of precedence (and also to a lesser extent the concept of legacy as discussed below), are both literary devices, employed by authors define their position and affirm their authority over the creation of an archaeological narrative (Tilley 1989b, 52). In these instances, the grey literature sources are perceived to have transactional properties (see Edgeworth 2006, 3) which play a fundamental role in reworking knowledge.

5.6.4 -Projects Influenced by the Concept of Legacy

The Archaeology of Wallingford - influenced by the potential of Wallingford (where much of the data remained unpublished) to provide an illustrative case study, not only regarding the growth and development of an unusually well-preserved and well-researched urban centre, but also one of effective and sustainable collaborative research (Christie & Creighton 2013, xii – 2).

The reasons for the inception of Archaeology of Wallingford evidently differ from the other 8 projects studied. Although the project aims to generate a robust and comprehensive narrative of a particular locale: aims clearly influenced by the increase in data made available through developer-funded investigations (as does many of the other projects studied) – where The Archaeology of Wallingford differs is how the authors relate their intentions to certain underlying principles (see Tilley 1989b, 47). The Archaeology of Wallingford project is driven by a **concept of legacy**, and the project's endeavours (i.e. not just the published narrative, but the collaborative process involved and the relationships forged) are framed arguably solely with this concept in mind. The perceived uniqueness of Wallingford – outstanding archaeological preservation, a wealth of archival material, and an active and locally influential research team – make the idea of constructing a legacy

possible. The unfamiliarity of the unpublished data (much of which is held in grey literature), and its perceived influential role seems almost coincidental.

In summary, it is clear that there are varying influences for a project's inception. In addition, the significance and perceived role of grey literature also varies across the projects. It has been demonstrated how grey literature can be seen as having a perceived practical or transactional role, through its use aims to validate broader principles which ultimately help guide the construction, management and consumption of knowledge (see Strathern 2006, 195). For example, in instances of policy adherence or legacy creation. All the projects emphasise the benefits of using grey literature resources, whether this use fulfils an obligation, or allows access to new (and unfamiliar) evidences. Furthermore, each project clearly intends to explore the use of commercially-derived data, and to inspire continued future use. There is little reference to any project directly responding to a grey literature crisis however, there are numerous references acknowledging current views on limitations of grey literature, and claims to seek to address such concerns – whether they relate to accessibility and presentation (see Cumberpatch & Thorpe 2012), interpretative inadequacies (see Fulford & Holbrook (eds.) 2015), or the lack of integration (see Bradley 2007). Later in this chapter any correlation between the reasons for the projects inception and the stated aims of the project will be identified, and a further discussion of significance of the relationships explored. The next section characterises how each project is structured with the aim being to understand the mechanisms by which how each author creates linkages and relationality within their projects.

5.7 - Defining the Project Structure

In order to characterise how the projects begin to craft their narrative perspective, this section will focus upon the language employed in the explanatory sections of each project. It will also consider the overall structure of the texts, in an attempt to understand the organising principles adopted by each of the authors. What also will be identified are any implications these differing perspectives have on the research and synthesis processes implemented. This approach emphasises whether a particular publication genre affords a particular type of structure. Simply, it will ask how do the authors propose to construct their topics? And do the authors aim to synthesise the available evidence by seeking similarities and patterns within the data-sets they study? Is their aim to stock-take knowledge? Do the authors favour a linear process of explanation (see Lucas 2015)? For example, do the projects use themes, periods or categories as the main structure? Or, do they favour a mosaic approach? And if so, what type of emplotment devices are employed in order to achieve a sense of relationality?

How each author chose to structure their project, can help establish not only how they intended their narrative to unfold, but also how the role of evidence and data is both regarded and utilised. These literary devices are what Pearson and Shanks identify and term as 'linkages' (2001, 52-3). One would expect to see a project adopting and maintaining a particular structure, throughout, and that structure contributing to an overall schema (or emplotment, as defined Shanks & Pearson 2001, 52-3)). These devices are what the authors employ in order to meet the stated objectives of their project.

Using information gleaned from the contents pages, and the opening sections of each project, it is possible to define their structures within the following groupings:

- **Chronological Ordering**

  EngLAID, The Prehistory of Britain and Ireland

- **Thematic Grouping**

  Thames through Time, The Archaeology of Wallingford, ScARF

- **Geographical Association**

  EngLaID (proposed), Bronze Age Field Systems in Southern England, The Archaeology of Chesterfield, The Towns of Roman Britain.

- **Key Messages**

  The Upper Thames Valley Pilot Project

There are a number of different ways an author can approach the structuring of their publication, and arguably one of the most common and traditional structures for an archaeological project is **chronological ordering**, with each chapter or section dedicated to exploring discrete time-periods, and through this a sense of narrative progression is achieved by moving from the earliest point in time, to the most recent (see Lucas 2015). Dependent upon the 'scope' of the project, such chapters or sections could deal with a few centuries increasing to millennia, regardless of the overall aim. This structure delivers a sense of linearity (see Lucas 2005). ScARF chooses overall to publish its research frameworks in separately defined chronological reports, though there is evidently a distinct sub-structure to the individual reports, one that is based on themes (ScARF 2012a). EngLAID use chronologically distinguishable 'data packages' as one of the main structuring principles of their nation-wide mapping project (the other key structure proposed is evidential categories) (see Green 2013; Ten Harkel 2014). Even in publications where the chapter titles indicate a move away from this traditional form of publication structure, such as in The Prehistory of Britain and Ireland (Bradley 2007), on closer inspection the underlying structure is evidently chronological.

Another familiar structure associated with a work of synthesis is **thematic grouping**, where chapters and sections are dedicated to pursuing a different kind of relationality, one that defines perceived similarities (and differences) in narrative expression (see Pluccienik 1999). Achieving a project structure through thematic grouping requires the author to assign a hierarchy to particular topics, potentially foregoing certain foci in favour of others. Evidence and data become the commodities, which are then mobilised in relation to the favoured 'themes' with the aim of creating an integrative study (see Fitzpatrick 2012; Hicks 2008). The Thames through Time volume (Lambrick 2009) adopts a thematic structure, whereas The Transforming Townscapes (Wallingford) Project combines chronological development with thematic sub-structures (Christie & Creighton 2013).

A further grouping identified by this characterisation exercise is **geographical association**. What is achieved through such a structure is a fuller representation of a defined geographical location. With evidence being collated through physical proximity, and assessed, in the first instance, by spatial association. Though it is often also subdivided into a mosaic of categories to enable further comparability. Yates (2007) uses geographically defined areas for the basis of his chapter structures, but within these chapters he utilises emergent 'themes' – creating further points of discussion to draw together comparable evidences. The EngLAID project authors have stated how their final publication will highlight a select number of regional case studies (see Gosden et. al. 2012; Ten Harkel 2014). It is intended through these regional case studies, to explore topics such as identity, agency and mobility. These topics should complement the broader spatial and temporal perspectives achieved by additional mapping work (Green 2013; Ten Harkel 2014). The Archaeology of Chesterfield (Cumberpatch and Thorpe 2002) report is structured according to the spatial confines of particular archaeological interventions, and this structure clearly lends itself to the systematic examination and evaluation of archival records. The Towns of Roman Britain (Fulford & Holbrook eds. 2015) contains a series of conference papers, which focus on specific geographical locations, with later chapters integrating separate geographies through thematic discussions. The structure enables contributions from separate authors, as well as allowing for some unification and comparability.

The Upper Thames Valley Pilot Project (see Morrison, Thomas, & Gosden 2014) publication emphasises **key messages** intended to be imparted to the reader. Presenting a simplified structure enables a more discursive, reflective account of the methodological processes and key learning taken from the project. This approach foregrounds, and gives equal weight to the researchers' experiences, alongside the research undertaken. (Though it should be acknowledged how the publication studied and referenced here is not likely to be the final published account of this project.)

At this juncture the focus will briefly consider how the residual organising principles from development-led projects, as well as the technical structure of grey literature compare to these projects (themselves aiming to integrate such resources). Asking whether the project structure choices identified above, bear any similarities or differences to those that structure a commercially-derived archive? (See Bradley 2012; Shanks 2012). As explored earlier in this thesis grey literature reports are typically structured by prioritising discrete categories of evidence (what Chadwick (2003, 106-7) refers to as a process of 'reductive categorisation' - a direct consequence of commercial field methodology). These categories of evidence are drawn together through similarities in type and age, and only afterwards are they reassembled in a chronologically structured summary narrative. It is not possible at this point in the characterisation to say whether the structure of grey literature provides a direct influence on the decisions made regarding the structure each project, with the exception of the Archaeology of Chesterfield and The Towns of Roman Britain. The Archaeology of Chesterfield (Cumberpatch and Thorpe 2002), evidently utilises a structure, and subsequent sub-structures which are directly derived from the archival format. The Towns of Roman Britain (Fulford & Holbrook eds. 2015) allows for some variability of format and reporting of commercial investigations across England; in the respect any given regional study will draw-upon sources held within single HER, and which were likely produced by a smaller number of commercial organisations, far fewer than those accessed for a national study. In reference to the remaining seven projects, it is plausible to say that chronological ordering, thematic structuring and geographical association are all structures which are in some way compatible to how data are presented in grey literature, and evidently each structure format lends itself to such integrative and synthetic projects, albeit with potentially varying degrees of engagement and success. An interesting point to note is the selection does not include a project, structured such that it subverts the format and categorised nature of grey literature, in order to fully test their integrative potential.

To summarise, the projects studied can be grouped into four key structures: *chronological ordering*, *thematic structuring, geographical association* and *key messages*. Each structure allows the authors to draw-upon a particular set of operational linkages, which are in some way influenced by the relationality, or definition and categorisation of evidences. Therefore, the narratives are expected to address discussions focused upon chronological periods, geographical areas, interpretative themes, general discursive reflections on process and learning, or in the case of Cumberpatch and Thorpe (2002), archaeological interventions. How the authors move from their chosen structures (as identified above) to defining the organising principles of the project's narrative, and how data is prioritised in the narrative assembly will be explored in chapter 6. The next section will focus on identifying the purposes and aims of each project. Achieving this by undertaking an analysis of the language used to define the project scope, the chosen methodological approach, as well as the authors' statements of expectation – all detail present in the introductory chapters of the selected projects.

5.8 - Analysing the Projects' Purposes & Aims

Pluciennik (1999, 653) advises against ignoring the potentially hybrid nature of an author's stated aims, if one is to evaluate their text for its explanatory value. In consideration of his cautionary words, the aims of this section are to formulate a broad appreciation, and comparative characterisation of the authors' intentions, in respect to all nine projects chosen. This exercise, coupled with the narrative structure choices outlined above, will allow and understanding of the principles by which the authors expect to undertake their assessment and synthesis of development-led projects. It will also reveal how each author anticipates grey literature data to inform their project outputs. In order to achieve these aims the initial statements each author makes, have been studied, specifically looking at the prefaces, introductions or methodologies. Tilley (1989b, 46) argues that the defined 'genre' of a text, allows the author to set the rules of the ensuing discussion, and therefore one would anticipate consensus amongst each similar publication genre being identifiable in those introductory sections.

Firstly, there will be a study of the types of words and phrases used by the authors to define their intentions and methodologies. Secondly, the study will explore the similarities or differences between the stated approaches, and a simple analysis of the language used in the framing of these intentions across the nine projects. The types of words and phrases highlighted will be those which explore or define the authors' expectations of the project outputs. They should also serve to set up the role of the authors and/or evidence in terms of crafting a narrative potential. The types of explanations anticipated have been grouped for ease of comparability. They comprise:

Group 1: Identifiable references defining the authors' expectations pertaining to the overall project outcome.

Group 2: Identifiable references defining perceptions of the data and its capacity, with particular emphasis on grey literature sources and commercially derived data, where distinguishable.

Group 3: Identifiable references relating to the proposed methodological organisation of the data.

Group 4: Identifiable references relating to the proposed means of engagement with the data.

Group 5: Identifiable references relating to the author's perception regarding the transformative process of authorship and synthesis, and indications as to how the data are to be 'transformed'.

Collectively these groupings create a simple taxonomy: broadly representative of the methodological processes of a work of synthesis, and they help to facilitate a textual analysis of the stated aims and objectives of the projects. *Table 3* collates the specific phraseology attributed to each group, for each project.

Project Title	Key Sources Consulted	Sections of Text Analysed (Including no. of pages)	Words / Phrases assoc. with Group 1 – expectations regarding the Project Outputs	Words / Phrases assoc. with Group 2 – perceptions regarding data and its capacity	Words / Phrases assoc. with Group 3 – proposed methodology relating to the organisation of data	Words / Phrases assoc. with Group 4 – proposed methodology relating to the engagement with data	Words / Phrases assoc. with Group 5 – opinions regarding the transformative process of authorship & synthesis
The Archaeology of Wallingford	(Christie & Creighton 2013, viii – 40)	Preface & Acknowledgements, Foreword, Summary, Chapters 1&2. 50 pages of text	Produce a full story, a first biography. Create a case study. Make a major contribution to knowledge.	Available data has both value and strengths, as well as inadequacies. Has tangible facets, and is ample in scale to help understand historical processes. The value of unpublished data not fully realised.	Sequence evidence and produce a chronology of the urban context. Frame within a landscape perspective.	Compare and contrast with other sites. Trace and analyse physical and social evolution. Contextualise within wider debates. Present results from various sources using a broad suite of methodologies to create an integrated narrative.	Interpretations will give a voice to both structures and people. Comparative study can make up for inadequacies within data-sets, and rectify incompatibilities in style of reporting. Enables the re-writing of history.
The Prehistory of Britain and Ireland	(Bradley 2007, xv – 26)	Preface, Chapter 1 29 pages of text	Write a fresh narrative. Contribute to debates. Produce an equal, rounded account.	Data is unfamiliar and relates to new geographies. Data unbiased by old orthodoxies. Data within grey literature parallels the rigour of analysis seen in research archaeology. Unprecedented in scale.	Adopt distinct themes. Avoid the conventional chronological framework. Combine the familiar with the new.	Undertake a wider contextualisation. Investigate the distinct character of evidences. Distil sources to produce a fresh narrative.	Potential to undermine received wisdom and liberate research focus. Extend the current work of archaeologists. Produce an interpretation, rather than emphasising descriptive detail.
The Towns of Roman Britain	(Fulford & Holbrook eds. 2015, xiii) (Bryant & Thomas 2015) (Fulford 2015)	Summary, Introduction, Chapter 2 and Chapter 11 34 pages of text	Undertake a synthesis of evidence of principal towns in Roman Britain. Review the 'state-of-knowledge' 25 years on from PPG16.	Data from small scale interventions individually unimpressive. Data regionally biased. Tendency for inaccurate classification – can result in false positives. Not always reported upon in appropriate scale. Character and quality of data affected by conditions of discovery.	Outline a biography. Refine phases of chronology. Accumulate detail relating to biological, artefactual and architectural evidences. Select evidence through key-word searches. Filter occupation and burial references from databases	Aggregate and accrue evidences of small scale interventions. Compare trajectories of the development of sites – through comparing like-for-like evidences.	Assess the contribution of knowledge – via accumulated knowledge and measured against pre-existing benchmark studies. A collective appreciation of aggregated evidences can produce information and understanding of great importance – likely to take decades of the accrual of evidence.

Thames through Time	(Lambrick & Robinson 2009, xii – 11)	Preface, Chapter 1 16 pages of text	Achieve an improved understanding, through a long-term perspective. Undertake a major review which challenges current explanations.	Freshness to data, distinct from older, familiar results. Potential for geographical and chronological bias. Necessary to relate evidence to means of discovery. Detailed data from excavations must be tempered with broader data from survey.	Adopt a thematic point-of-view. Achieved through geographical and chronological frameworks. Map change as trajectories. Create broad chronologies. Produce descriptions and sequences.	Compile and review. Explore and define both drives and inhibitors of change. Disentangle physical evidence, to create explanations.	Enable one to challenge traditional, pigeon-holed evidence. Craft social lenses – through which to interpret evidences and generate narratives. Synthesis allows one to build upon existing ideas.
The Archaeology of Chesterfield	(Cumberpatch & Thorpe 2002, 8 – 10, 91 - 92)	Summary, Introduction and Summary & Conclusions 4 pages of text.	Produce a synthesis. Present an overview to explore the potential of improved accessibility and future use.	Data has the potential to make significant contribution. It is valuable, but underused – its condition must be investigated prior to use.	Catalogue & sort. To create an Inventory.	Review and Assess. Describe, define and explain extant archives. Contextualise sites / evidences within a broader schema.	Potential to transform format and presentation of data. Facilitate accessibility for future use by a range of new audiences.
Bronze Age Field Systems in Southern England	(Yates 2007, 1 – 13)	Abstract & Chapter 1 15 pages of text	Produce a study of lowland, Bronze Age rectilinear field systems, within a broad geographical area. Create a synthesis drawing upon a substantial body of commercial reports.	Commercial data presents a highly effective research tool – counterpart evidence to the better studied up-land field systems. Not up-to-date, constantly being added to. Potential attributed to scale and distribution. Data can provide effective overviews. Narrow classification can create bias.	Classify based on pre-defined criteria. Compile a gazetteer. Sequence.	Establish interpretative potential of both positive and negative evidences. Examine variation and distribution. Make judgments based on whether evidence is deemed 'secure'.	Allows one to determine / extrapolate interpretative boundaries. Causes one to reassess existing models. Allows for an enhanced understanding.
EngLAID: English Landscapes and Identities Project	(Gosden et. al. 2012) (Cooper & Green 2016, 271 – 304)	Whole Articles 37 pages of text	Investigate and present a long-term history of the English landscape. Produce a nation-wide synthesis (by conducting a broad-brush analysis), Produce a series of case studies.	Data-sets extraordinarily rich, important and unique, with huge potential. Grey literature constitutes the greatest chronological resolution and easily cross-	Establish national patterns of classifications for land-use and deposition. Achieve a long-term chronological focus	Combine evidence on landscape features, with distribution models. Develop theory to provide a model of value Explore the character and interpretative	Synthesis on an unprecedented scale – to gain a full and nuanced picture of broad trends as well as local variety.

	(Ten Harkel 2014)			comparable. Challenges posed by size and complexity of data. Key-word categorisation / classification of data can introduce inaccuracies for data-handling.		capacity of data-sets. Use a variety of scales and levels of resolution to explore data, from broad-brush to very fine-grained.	Placed to identify and address broad trends of continuity and change. Increase academic prominence of data-sets.
Upper Thames Valley Pilot Project	(Morrison, Thomas, & Gosden 2014)	Summary, Introduction & Methodology 3 (web) pages of text	Undertake an extensive landscape study. Produce a synthesis of commercial data.	Data represents considerable portions of the landscape. Digital format makes it easier to combine and manipulate diverse sources of information. Few sites have GIS-ready data available in a useful format. Data frequently classified by non-standard language. Limited attempts to integrate data.	Coordinate data held in different formats and by separate HERs. Assemble data and standardise terminology and data classification.	Integrative study – using spatial data at varying scales of resolution. Undertake analysis at a landscape level – rather than an individual site level. Analysis of results, in terms of spatial and chronological patterning. Draw conclusions from negative spaces.	Produce a narrative of human history. Achieve a more nuanced understanding of the character and significance of archaeological resource. Engender a collaborative ethos – between commercial / academic data-sets and between different authorities.
ScARF: Scottish Archaeological Research Framework	(ScARF 2012a; ScARF 2012b)	Executive Summary Chairman's Introduction 4 pages of (web) text	Undertake a critical review of state-of-knowledge. Produce a working resource. Write an account of where we are and where we'd like to be - a fully accessible progress review.	Uniquely, strong data-set.	Produce a topic based outline / framework. Adopt a Scottish chronological framework	Account for regional trends.	Contribute to broader questions. Achieve an improved understanding. Present a coherent regionalised perspective. Provide best practice for future initiatives. Identify and prioritise areas for research.

Table 3: Specific words and phrasing defining the aims, objectives and methodologies of nine projects, listed according to the five taxonomic groups.

The detail contained in *table 3* is discussed here, and references to the individual projects can be linked back to the bibliographic sources as listed in the table. Emphasis is placed upon highlighting the commonalities and differences of both the expectations and methodological approaches between the nine projects. The discussion attends to the characterisation findings associated with each group in turn, beginning with group 1 – **the stated expectations regarding the project outputs**.

As suggested to earlier in this chapter (see section 5.5.1), all nine projects to make reference to producing work of synthesis. Five projects (the Towns of Roman Britain, the Archaeology of Chesterfield, Bronze Age Field Systems in Southern England, the Upper Thames Valley Pilot Project and EngLAID) directly use the term synthesis to describe their expectations regarding the project output. If they are not referring to the term synthesis directly – the authors are using comparable terms – such as review (Thames through Time), aggregation (the Towns of Roman Britain), a comparative study (the Archaeology of Wallingford), an overview (the Archaeology of Chesterfield) and/or a 'rounded' account (Prehistory of Britain and Ireland). The expectations regarding the project outputs are expressed in terms of the presentational format of that output, the perceived reception of the undertaking, as well as the use of language that alludes to the proposed processes involved. For example, in relation to presentational format, common language used by the authors includes: a study, story, case study, an account – all seemingly generic terms, qualified further by an expression of value. These expressions of value are intended to demonstrate how the project results intend to gain currency, and how they are likely viewed from the reader's perspective (or by the discipline as a whole) - i.e. a reader will be exposed to new knowledge, given a fresh perspective, provided with accessible information or be presented with a complete story. At this juncture it is possible to start to make connections between these stated expectations of the project output (particularly those expressed in value terms), the benchmark attributes of the chosen publication genre, and the reasons for the project inception. Below is an aggregation of these specific characteristics for two projects: The Archaeology of Chesterfield and Bronze Age Field Systems in Southern England.

The Archaeology of Chesterfield - publication genre: a research report, defined by clear research criteria (in this instance the use and accessibility of archival data) → funded by: English Heritage and influenced by practical and technical considerations → expectations regarding the project output: expressed in terms of potential use value and accessibility – aiming to create a useable resource, and present an overview.

Bronze Age Field Systems in Southern England – publication genre: a research monograph, emphasis on role of data and research focus → funded by: English Heritage and influenced by the concept of precedence → expectations regarding the project output: expressed in terms of value of newly available commercial data, and potential to pursue a new research focus.

Perhaps unsurprisingly these two examples demonstrate how the stated expectations of the project output, the attributes of the chosen publication genre, and the reasons for the project inception are each constructed and employed to emphasise and reinforce a particular project outcome – commensurate it seems to the approach adopted by each author. The study will now turn to consider how the authors make reference to data: studying and comparing their *perceptions regarding the capacity and value of that data*, with particular emphasis on data from grey literature.

It is possible to identify three key commonalities across the projects studied and these are:

1) how data capacity is linked to data format (including volume and scale).

2) How capacity is linked to perceptions of use value – and this is typically expressed in generalised terms.

3) How data capacity is inextricably linked to conditions of retrieval and / or organisation.

The project authors choose to establish both generalised and specific perspectives, with regards to their perceptions of the use value of commercially derived data-sets. And both sets of perspectives touch upon discussions around the quality and quantity of available evidence, as well as generating comments regarding its availability and accessibility. Let me expand upon this claim by using some specific examples. Many of projects' introductory sections proliferate rhetoric pertaining to both the 'potential' and volume of commercially derived data-sets. It is also common for the authors favour the use of qualifying language often without specificity – potential, strong, wealth, fresh. Bradley (2007, xv - 26) talks of unfamiliar and unbiased data unprecedented in scale. Yates (2007, 1-13) expresses similar perceptions of value – where the potential of data can be attributed to both its scale and newness. Gosden et. al. (2012) talk of extraordinarily rich, unique data with huge potential. It is a common attribute of the projects studied to claim how the importance of the available evidence increases exponentially when considering their accumulated value (refer to the concept of cumulative value as defined earlier in the chapter). For example, Lambrick and Robinson (2009, xii-11) talk of tempering the detail of grey literature with broader survey data. The EngLAID and the Upper Thames Valley Pilot Study authors suggest that the importance of site-based evidence can be amplified when incorporated into broader 'landscape' syntheses. Why such approaches are valued appears to be reinforced through their expectations regarding the project output (as discussed above). Whether the authors establish the mechanisms for how this incorporation is achieved will be explored in the following section. Three of the projects manage to achieve a more specific perspective, with regards to their perceptions of the potential use and value of commercially derived evidence, and they elucidate at the precise qualities inherent in such resources, which pertain to its value. The EngLAID authors identify how the extent of chronological resolution afforded by grey literature, and the comparability of the detail contained

therein (see Cooper & Green 2016, 297). Lambrick and Robinson (2009) and Yates (2007) both make reference to the alternative variability in locale created by development-led investigations, and the relative 'unfamiliarity' of the site types represented. Both also highlight the distributional potential of data to achieve a broader landscape resolution. It is also common for the authors to create and emphasise dichotomies to reinforce value perceptions – such as old/new, familiar / unfamiliar, extensive / limited, biased / unbiased, published / unpublished. For example, Yates (2007) and Fulford & Holbrook (2011) both emphasise the distinctions between unpublished client reports (the grey literature) and those which are published – discussing issues of accessibility or data value judgements.

Generalised caveats to the use and value of grey literature often refer to the lack of attention paid to grey literature and a limited acknowledgment of its potential value, leading to the current perceived state of under-utilisation. For example, Christie and Creighton (2013, viii-40) talk of the unrealised value of unpublished (grey literature) data. Cumberpatch and Thorpe (2002, 8-10) refer to grey literature as valuable: having the capacity to make a significant contribution, but being underused. The absence of reciprocal directionality, where information and influence flows between the research and commercial sectors is lamented by both Bradley (2007, xv-26) and Morrison, Thomas and Gosden (2014). Some authors also explore how the conditions of discovery (especially in a commercial setting) can impact upon the quality and character of data (see Fulford & Holbrook 2015; Lambrick & Robinson 2009). Specific 'issues' pertaining to the limitations of grey literature data are explored by a number of authors. For example, there are numerous perspectives offered with regards to the criteria used for site designation, in a commercial setting. EngLAID (see Cooper & Green 2016), Yates (2007) and Fulford and Holbrook (2015) are each of the opinion that narrow site designation / classification (common in a commercial setting and used with grey literature reports, and by HER's who are digitising regional data-sets), can limit the potential for accurate selection of project appropriate data. It has been demonstrated how the authors are able to explore, sometimes at length ideas regarding the capacity and perceived value of data intended to be used in their projects. The discussion has shown how they are able, and willing to express both generalised and specific viewpoints in relation to this topic, as they begin to craft their methodological approach to using and synthesising grey literature. Now the focus will turn to how the authors propose to use data - studying and comparing the stated methodological approaches to **data organisation and engagement**.

The purpose of separating out processes of *data organisation* and *data engagement* is in accordance with accepted theories of how knowledge enters the cognitive domain – with organisation being a lower order skill, progressing to synthesis (the ultimate aim of the projects studied) being the highest order skill (see Krathwohl 2002). By studying the proposed methodological approaches to both data organisation and

engagement it was possible to reveal how the authors anticipate being able to use data within their projects. It also helped to identify a potential hierarchy of engagement, which in turn helped understand the cognitive processes employed. The discussion begins by outlining the proposed organisational methods used – and comparing these to the project structures, as identified in section 5.7 of this chapter.

Data organisation – this aspect relates specifically to how an author proposes to categorise and/or sequence data. Coupled with the overall structure of a project, this organisational strategy can create the frameworks through which further engagement is made possible. Authors refer to patterns, classifications, sequences, frameworks and phases as ways to describing the types of organisational strategies employed. Which has led the study to question: what exactly is being organised? And how does this differ between projects? The Archaeology of Wallingford and EngLAID prioritise chronological sequencing in their organisational methodology – for the Archaeology of Wallingford, data is being organised according to an urban sequence, whereas EngLAID is seeking a broad-term chronological narrative. The Prehistory of Britain and Ireland, ScARF and Thames through Time emphasise a thematic framework – for the Prehistory of Britain and Ireland there is a desire to avoid conventional chronological frameworks (Bradley 2007), although the separate regional frameworks produced by ScARF are dedicated to discrete chronological periods, each individual report aims to organise data via topics and with Thames through Time the thematic structure enables a sub-structure organised by both chronology and geography. The Towns of Roman Britain, The Archaeology of Chesterfield, Bronze Age Field Systems in Southern England and the Upper Thames Valley all favour particular types of classification – a biography, an inventory, a gazetteer. How do these methodological approaches compare to the overall publication structures? As one would expect for most of the projects the overall publication structures correspond directly to the proposed methodological approach to data organisation. The only example where this is not the case is The Prehistory of Britain and Ireland. Bradley clearly states his desire to adopt a distinct thematic treatment to his narrative, and arguably his subversion of periodization is his way of avoiding a 'conventional chronological framework' (Bradley 2007, 26). This said he does clearly utilise a chronological framework to structure his publication, however loose and unconventional this may be.

Data engagement: clearly differs from data organisation - and the difference relates directly to the role of the author, and the tasks employed. Data organisation involves making links, formulating combinations, achieving order – tasks which require a level of engagement based on specific data characterisations – arguably achieving a superficial level of knowledge and understanding. Here, engagement was chosen as an umbrella term: one which implies the author has a different role, in which they directly intervene with data. The methodological statements for each project were characterised in order to identify the techniques (both

analytical and theoretical) proposed in order to realise the full value of the data being used. The verbs used by the authors to explore their engagement methodology include – to compare, to combine, to define, to make judgements, to explain and to contextualise. A number of projects make reference to integrative techniques of engagement – techniques designed to realise the cumulative or relative value of data. For example, the Archaeology of Wallingford, Bronze Age Field Systems in Southern England and The Towns of Roman Britain refer to comparing and contrasting like-for-like data – seeking similarities and variations. EngLAID and the Upper Thames Valley Pilot propose integrating and combining data at varying scales of resolution. Another methodological aim common to the Archaeology of Wallingford, the Prehistory of Britain and Ireland and the Archaeology of Chesterfield is to contextualise data into wider interpretative schemes. This aim is mirrored by references made in relation to both defining the individualised character of data, and reframing data within wider perspectives, as seen in Thames through Time, EngLAID and the Upper Thames Valley Project. A further proposed method of engagement, which can be linked directly to the reasons for the projects inception, as defined in section 5.6 of this chapter, is the formulation of judgements based on the nature, interpretative capacity and security of the data. These proposals are outlined in Bronze Age Field Systems in Southern England and EngLAID – interestingly both projects influenced by the concept of precedence.

To summarise, statements regarding proposed engagement techniques indicate some clear similarities in approach and scope, such as those which emphasise the cumulative or relative value of data, or which aim to affect the data's interpretational scope, through a contextualised or individualised perspective. Other proposals relate directly to the factors which have influenced the project, such as the reasons for its inception or the expectations of its genre. It has been possible, from the characterisation findings, as shown in *table 3* and discussed above, to establish a hierarchy of engagement techniques that define an approach associated with a work of synthesis, and in doing so also benchmark the level of data engagement proposed by each project. It is interesting to note, is how similar hierarchies are applied to the development of cognitive functions in learning.

→ **Tier 6** – Theorise and Model

→ **Tier 5** – Explain and Interpret

→ **Tier 4** – Individualise and Define

→ **Tier 3** – Contextualise

→ **Tier 2** – Compare and Contrast

Tier 1: Organise and Combine

The final aspect of this characterisation of the aims and expectations of the projects focuses upon *perceptions regarding the transformative nature of synthesis.* What is meant by the transformative nature is how data is transformed from one format or perspective to another – i.e. how value is added or realised by the act of synthesis. The characterisation findings, as shown in table 3, suggest that each author(s) hold clear views on this matter. Arguably these views influence and craft the ultimate nature and status of the project outcome. Here are examples of how this consideration is expressed. The concept of a work of synthesis presenting a complete picture is commonly expressed – and this complete picture is endowed with an (potential) elevated disciplinary status. Words and phrases such as liberate, reassess existing models, re-write history, undermine wisdom, challenge traditional ideas, great importance and significance, enhanced understanding, unprecedented are used to emphasise the transformative nature of the endeavour. Some projects relate their proposed undertaking directly to practical outcomes – discussing best practice (ScARF), engendering a collaborative ethos (Upper Thames Valley Pilot Project), facilitating future use (the Archaeology of Chesterfield), rectifying data inadequacies and incompatibilities (the Archaeology of Wallingford). In the Archaeology of Wallingford, the Prehistory of Britain and Ireland, Thames through Time and EngLAID the synthesis process is expressed as having the potential to counteract some of the limitations of grey literature – proposals to present an interpretative (rather than descriptive) account, and study data through specific interpretative or theoretical lenses, all add to the transformative effect. It is clear how a considerable amount of confidence and importance is placed upon the process of synthesis, for each and every project. The logical next step would be to test the proposals and initial claims against the actual processes employed and make judgements regarding their success at delivering what has been claimed – and this will form part of the analysis in the next chapter. The following, and final section of characterisation aims to quantify the use of grey literature, and commercially-derived publications more generally, in the nine projects.

5.9 - Quantifying the Use of Grey Literature

In order to complete this assessment of the baseline characteristics of projects which have sought to utilise grey literature and to begin to develop a discussion pertaining to the contribution of grey literature to these projects it has been necessary to simply quantify this use. This process involved identifying and quantifying the following detail from the projects' bibliographies:

- Total number of references (including %s)
- The number of (unpublished) grey literature, client and specialist reports referenced (including %s).
- The number of published sources (in the form of proceedings, bulletins, special reports and transactions) which are derived from commercial undertakings (including %s).

- The number of monograph publications referenced (selected those derived from commercial undertakings, and those published by commercial units) (including %s).
- The number of research frameworks referenced (including %s).

These resource-type groupings have been distinguished specifically because although they may have been derived through developer-funded activities they will undoubtedly have varying traits and accessibility constraints.

The results of this quantification exercise are shown in *table 4* and are discussed in further detail below. It is important to note that the quantification exercise was only possible for seven out of the nine projects, due to the absence of the final publication for both the Upper Thames Valley Project and EngLAID.

Project Title	Key Reference(s)	TOTAL number of bibliographic references	Number of unpublished grey literature, client or specialist reports referenced	% of total	Number of published reports & articles referenced	% of total	Number of Monographs and Atlases referenced	% of total	Number of Research Agendas / Frameworks referenced	% of total
The Archaeology of Wallingford	(Christie & Creighton 2013)	989	55	6%	13	1%	40	4%	5	0.5%
The Prehistory of Britain & Ireland	(Bradley 2007)	787	Not referenced	0%	Not referenced	0%	13	2%	Not referenced	0%
Thames Through Time	(Lambrick & Robinson 2009)	891	30	3%	224	25%	40	4%	7	0.8%
The Archaeology of Chesterfield	(Cumberpatch & Thorpe 2002)	47	14	30%	3	6%	0	0%	7	15%
Bronze Age Field Systems in Southern England	(Yates 2007)	819	249	30%	59	7%	27	3%	5	0.6%
ScARF	(ScARF 2012b)	599	8	1%	52	9%	3	0.5%	1	0.2%
EngLAID	No final publication available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
The Towns of Roman Britain	(Fulford & Holbrook eds. 2015)	1037	100	10%	163	16%	115	11%	5	0.5%
Upper Thames Pilot Study	No final publication available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 4: Table showing the number of commercially-derived reports in the bibliographies of the chosen projects (both quantified and presented as a % of total number of references).

It has been previously established how the broad aim (and arguably genre) of the projects studied is one of synthesis even although their structure, methodological approach and publication output has shown both similarities and differences (see sections 5.5.1, 5.7 and 5.8). One would anticipate works of synthesis to draw upon a multitude of sources – and what these projects have in common is that they openly anticipate drawing upon grey literature, and more generally published results from developer-funded activities. The quantification exercise undertaken was deemed a simple, but effective way of characterising the extent of this anticipated use.

Beginning with a brief commentary on the *total number of references* contained with the bibliographies of the studied projects, it is clear these vary (in number) as they are also representative of the scale and potential scope of the projects. The project with the lowest number of referenced sources contained with its bibliography is The Archaeology of Chesterfield, with 47 references. The project with the highest number of referenced sources is The Towns of Roman Britain with 1037. With the other projects falling somewhere in between these figures. There is a caveat to The Towns of Roman Britain project however, as the published text is an edited volume of 11 articles, and there is likely to be some duplication of referenced material across the 11 separate, bibliographies included, and the quantification exercise did not account for any potential duplication.

The quantification results (shown in table 4) clearly indicate that the use of commercially-derived resources (both published and unpublished) is variable across the projects. Bronze Age Field Systems in Southern England referenced the highest number of commercially-derived sources (52.6%) and ScARF referenced the least (10.7%). The quantification exercise should perhaps have considered The Prehistory of Britain and Ireland to have referenced the least number of commercially-derived publications (3%) – however Bradley (2007, xvi) openly states how he chose not to reference texts which have a limited circulation. In a later publication Bradley asserts that the research for Prehistory of Britain and Ireland project was inclusive of 3379 developer-funded investigations (Bradley et. al. 2016, 17) – though it is impossible to establish whether all unpublished sources examined would have been included in the final bibliography.

As stated previously, the quantification groupings were chosen to distinguish between different publication / resource types, as it may be possible to draw particular conclusions from the choice of using different source material – i.e. using a published 'proceedings' article of an excavation, as opposed to an unpublished grey literature report of the same excavation. The results will now be discussed with reference to the following

four groupings: research frameworks; monographs and atlases; published articles and reports; and unpublished grey literature, client and specialist reports.

The least referenced resource is the *research framework*, ranging from representing 0.5% - 15% of the total number of references. Research frameworks are a fairly recent undertaking, and arguably are not purely driven by the commercial sector, despite being heavily influenced by the pace and scale of discovery attributed to developer-funded interventions. As described earlier, the research framework is a genre of archaeological publication which aims to integrate regional evidence to present the state-of-knowledge of that regional, and identify gaps in order to direct research activities (see Last 2008; Last 2012). By their very nature, the research framework distils a variety of source material, similarly to a work of synthesis, to address predominately pragmatic and practical concerns. It is more likely that the same originating sources employed within a research framework are likely to be drawn-upon in subsequent projects more readily that the framework publication itself.

Monographs and atlases are the second lowest publication-type drawn upon by the projects studied, ranging from representing 0.5% - 11%. A monograph can be seen as a more conventional publication, which transforms the accessibility of excavated evidence, replacing the client report as the main published output from a developer-funded excavation (see Bradley 2006; Connah 2010; Fulford & Holbrook 2011). Clearly a monograph publication is considered to increase the domains within which the information and knowledge contained therein operates. Fulford and Holbrook (2011, 333) assert however, that there multiple reasons to why sites are presented in such a conventional publication.

The referencing of both *unpublished reports* (grey literature, client and specialist reports), and *published reports and articles* (such as proceedings, bulletins, special reports and society transactions) has produced similar quantifications. Unpublished reports accounted for 1% - 30% of the total references, and published reports and articles accounted for 1% - 20%. Fulford and Holbrook (2011, 334) state that there is little to distinguish between the quality and scope of unpublished and published evidence. However, others argue how unpublished grey literature is the most difficult resource-type to apply to synthetic projects, and the conditions of its production must be acknowledged, and understood prior to its use (see Bradley 2015; Vander Linden & Webley 2012). It is important to recognise that despite Fulford and Holbrook's (2011, 334) claim regarding the similarities between published and unpublished reports; published reports and articles are written for a particular audience, and are likely to differ in format and content from an unpublished grey literature or client report. Published articles can isolate or emphasise specific evidential or interpretational

details from an excavation, they can consolidate information and potentially overcome issues associated with the specific structure and content of grey literature or client report.

In summary, the projects characterised in this chapter reference a wide range of sources, and for a number of projects a significant number of references are commercially-derived resources. The projects all utilise grey literature (unpublished sources), but to varying degrees. As was perhaps anticipated 'research' focused publications (such as Bronze Age Field Systems in Southern England and the Archaeology of Chesterfield) reference the highest quantity of grey literature sources. Whereas 'monograph' publications (such as Thames through Time and the Towns of Roman Britain) demonstrate a tendency to utilise more published references. What is striking is how less than 11% of the references listed for ScARF originate from developer-funded contexts, despite the claim of the project to present a coherent and comprehensive review of current knowledge (ScARF 2012b).

5.10 - Concluding Remarks

This chapter has sought to characterise the following features of nine projects seeking to utilise and integrate grey literature resources into a synthesis publication –

- Publication genre
- Reasons for the project inception
- Structure and organising principles of the final publication
- Aims and expectations of the project output
- Quantification of the use of grey literature.

The whole characterisation programme has been complex and detailed, despite working with information at a meta-level. It is the first time such an exercise has been undertaken, and there are lots to learn and take from the process. The nine projects collectively represented seven different publication genres – genres common to the archaeological discipline. However, it has been postulated that all nine projects could also be classified under the umbrella genre of synthesis. With the expectations of a work of synthesis being defined, and modelled in relation to a methodological approach to data engagement. This exercise has produced a useable benchmark, against which to judge and measure the outcomes of any future works of synthesis. The characterisation task has also identified that they are distinct influencing factors on the reasons for the projects inception and clear cross-over seen between the projects. Through the characterisation four influencing themes have emerged (practical, obligation, legacy and precedence). Furthermore, it has been possible to identify direct correlations between the influence of the expectations of a genre, the reasons for a project's inception and the claims made regarding the expectations of the project

outputs – in that they all serve to reinforce the fundamental aim of the project. It has been demonstrated how the projects are structured, has clear and direct correlation to how the authors propose to organise data. In addition, similarities have been drawn between the structure of a number of the projects studied and that of grey literature data. Detail pertaining to the aims of the projects also expose the views of the authors regarding the potential value of grey literature data, and the transformative effect the synthesis process will have on realising that value. These value judgements enable comparisons to be made between perceived- and realised-value (terms which were defined earlier in the chapter). The nine projects studied all openly expressed aims to engage with and integrate, where possible data from commercial-derived sources, including grey literature. By quantifying the number of grey literature resources referenced in each project bibliography it has been shown that this engagement is varied across the nine projects – some choosing to use >50% commercially-derived resources, some <11%, and one project choosing to omit these references entirely from the bibliography. Through the various exercises and studies undertaken in this chapter it has been possible to define the specific characteristics of the 9 projects studied, and also define the expectations relating to the use and integration of grey literature resources into synthesis projects. These characteristics and expectations will now provide the spring-board, by which to facilitate a further in-depth analysis (albeit of a smaller sample of projects). The analysis will focus on how the use and value of grey literature is realised, and define the actual processes involved in prioritising grey literature, and the scope of the narratives produced.

Chapter 6: Analysing how Projects realise the value of Grey Literature

6.1 - Introduction

The previous chapter characterised a selection of nine projects which had sought to integrate and realise the content and value of grey literature. The characterisation exercise established the methodological, philosophical and structural frameworks adopted by nine different projects. Through this characterisation it was possible to identify: 1) the range of publication genres represented across those nine projects; 2) the overall descriptive and analytical structures adopted; 3) the factors / stated objectives influencing the projects' inception; 4) the underpinning aims and expectations of the projects; 5) as well as the methodological approach taken with regards grey literature synthesis. The resulting chapter has achieved an understanding of all nine projects at a meta-level. In addition, the work completed helped illustrate many of the structures and conventions of current archaeological synthesis writing (see Tilley 1989b). Additional commentary within the chapter dealt with the authors' perceptions and expectations regarding the use value of grey literature; and defined 'use-value' as an anticipatory mechanism of the synthetic process. The characterisation process enabled a significant conclusion to be reached – being that an author's expectations regarding the use-value of grey literature serve to frame the principles of the ensuing synthetic exercise, and thus ultimately structure the integrative approach adopted. As to whether these principles 'limit' the scope and possibilities afforded by the integrative use of grey literature is a point of discussion which will be examined here.

To move the discussion forward, advancing the level of examination, it is useful at this juncture to take heed of the recommendation made by Wylie and Chapman (2015, 11) – whereby they believe it is necessary to define the scope of an author's underpinning expectations (what Wylie and Chapman call 'pre-understandings') in order to understand how these pre-understandings impact upon any resultant narrative – this chapter ascertains the form and scope of the synthetic narratives produced, and tests the projects' outputs against those stated pre-understandings, seeking to identify their impact, and any potential limitations. The chapter utilises the characterisation findings presented in chapter 5, adding a further layer of data-analysis, to essentially achieve a more in-depth viewpoint, in order to understand and interpret the act of grey literature integration. This chapter both identifies and analyses the range of mechanisms by which grey literature sources are integrated into synthetic projects - by understanding how grey literature is mobilised and by posing the question - what happens when a project confronts grey literature resources? The analysis also highlights the constraints and limitations presented by using grey literature resources.

In order to complete a rigorous, in-depth analysis of the narrative outputs, within the parameters of this thesis, it is necessary to reduce the nine characterised projects (explored in Chapter 5) down to a smaller sample of three. The Towns of Roman Britain, Land, Power & Prestige: Bronze Age Field Systems in Southern England, and Thames through Time (Later Prehistory), are selected for analysis in this chapter. Selecting projects which are completed and published is a necessity for the proposed analysis. This is because the final publications present the 'whole picture' and enable access to, not only the aims and expectations regarding the use of grey literature, but also the actualisation of that use, as well as the resulting narrative end-product. It is also important that the chosen projects exhibit sufficient evidence of in-text referencing of grey literature resources, to enable a significantly fruitful analysis. A point of interest to note, though not necessarily a contrived outcome, is how The Towns of Roman Britain, Land, Power & Prestige: Bronze Age Field Systems in Southern England, and Thames through Time (Later Prehistory) are markedly distinct from one another due to their variable use of grey literature, as ascertained from the characterisation of the bibliographic sources – from 3% inclusion of grey literature sources in the Thames through Time bibliography – to 10% in the Towns of Roman Britain – to 30% in Land, Power and Prestige: Bronze Age Field Systems in Southern England. This distinction between the projects makes it further possible to explore and compare how variable proportions of grey literature integration, and their in-text utilisation and citation, may impact upon resultant narrative form and scope. The findings from this somewhat fortuitous examination are discussed further in the concluding section of this chapter.

6.2 -Methodology

The requirements to adopt a more concentrated focus has led to the development of a clear methodological framework for this chapter. The strategy involves a combination of both statistical and textual analysis, applied to a single chapter (or article) selected from each publication. Comparative statistical data are collated and analysed to quantify the use of grey literature. Textual information is gathered to support an analysis of how grey literature contributes to the actualisation of the project aims, including a breakdown of which structural elements of grey literature are most frequently drawn-upon. The investigative methodology applied sequentially to the three selected projects is framed around the following questions:

1) *How are data selected for inclusion, and subsequently used?*

2) How much priority is given to grey literature?

3) Which interpretative invention level typifies the author's main access point to the archaeological record?

This analysis uses a 'whole chapter' approach which 1) studies the source material drawn-upon by each author – establishing the contributions made by referencing grey literature sources; 2) collates statistics for methodological approach – including, for example the number of sentences attributed to grey literature

sources, compared with those attributed to alternative citations and; 3) identifies the significance of any evident 'source hierarchies' in the value assigned to referenced data – examining whether grey literature sources are afforded priority status over other source-types.

An original analytical question (alternative to the present question 3 - above) was explored in the analysis stage – '*Is it possible to identify which elements of grey literature are used?*' -, however it proved impossible to answer this question fully, as analysis indicated that the main access point to the archaeological (archival) record seemed to originate from both structural descriptions and interpretative identifications – and allowed little or no elucidation about which specific elements of grey literature were drawn-upon. Therefore the proposal was abandoned, and an alternative analytical question postulated. The results of the trial analysis using the original question - '*Is it possible to identify which elements of grey literature are used?*' - are presented below (in section 6.3.4), with reference to the analysis of Bidwell's article, for completeness. A revised approach was devised which allowed the analysis to consider which aspects of the interpretative process formed each author's main access point to the archaeological record. The interpretative process is specified as the 'grades' of engagement, and the interpretative lens applied to archaeological data, as it is acquired and transformed through the grey literature 'constructional' process (i.e. descriptors derived from excavation → phasing and interpretative relationships and categories established in post-excavation → wider contextual research and narrative construction to furnish the final grey literature report). A consideration of individual stages which loosely make-up the whole 'constructional' process, enabled the following grades of engagement to be defined.

1 - individual context descriptions;

2 - feature descriptions and/or data (derived from groups of contexts and involves identifying language);

3 – descriptions and/or data from groups of features – which may include functional interpretations and define spatial relationships;

4 – phasing / phased data – which may define chronological relationships;

5 – narrative construction – which may include explanatory language and include inferences made by the report's author and finally;

6 – wider contextualisation of data – which extends the data beyond its initial investigative context.

The remainder of this chapter comprises separate analyses for each selected text, which are presented first in sections 6.3 through to 6.5. Then a comparative discussion which draws the analyses together to explore the trends and variations discerned. The discussion also establishes whether there are any obvious biases or constraints evident in the use of grey literature and compares the mechanisms through which grey literature contributes to the actualisation of each of the projects' aims. The presentation of the analysis findings below is preceded by a short summary profile of each of the texts selected for study. The short summary profiles presented should be viewed as a means of scene-setting and contextualising the texts within the projects as a whole, thus further connecting the meta-level discussions presented here in chapter 5, with the analysis undertaken for this chapter. (NB: the characterisation findings from the previous chapter are summarised and reproduced here in *table 5* to ease cross-referencing for the reader).

	The Towns of Roman Britain	Land, Power and Prestige: Bronze Age Field Systems in Southern England	Thames through Time (Later Prehistory)
Key Reference	(Fulford & Holbrook eds. 2015)	(Yates 2007)	(Lambrick & Robinson 2009)
Summary Project Details	Period specific national synthesis project (resulting from a conference) on towns of Roman Britain. Part of a large assessment on the contribution of GL to Roman Archaeology. Project Duration 2010-15 Funded by English Heritage Completed and published.	Research synthesis, focusing on specific chronological, geographical and evidential categories pertaining to lowland field systems in the Bronze Age, in Southern Britain. Published in 2007. Based on PhD research (University of Reading) – publication supported by English Heritage funding Completed and published.	One of a series, comprised of a set of three archaeological monograph publications, whose focus is on chronological and thematic, geographically specific synthesis - covers Upper and Middle Thames Valley Gravel Terraces (primarily results of work undertaken through aggregates extraction). Published 2009 Funded by Aggregates Levy Sustainability Fund Completed and published.
Publication Genre	Conference Monograph	Research Monograph	Synthesis Monograph
	NB: Though it was also identified that all three publications, by their very nature, also infer the aim of synthesis – itself an identifiable archaeological genre.		
Reasons of Project Inception	Influenced by a sense of obligation	Influenced by the concept of precedence	Influenced by the concept of precedence
Project Structure and Organising Principles	Structured by geographical association	Structured by geographical association	Structured through thematic grouping
Summary of authors' expectations pertaining to project outcome.	Synthesise evidence of Roman Towns and *review* the 'state-of-knowledge' 25 years on from PPG16.	Produce *a study* of lowland, Bronze Age field systems and create a *synthesis* drawing upon a substantial body of commercial reports.	Undertake a major *review* which challenges current explanations.
Summary of authors perceptions of data and its capacity	Positives: Caveats: Not always reported upon in *appropriate scale*. *Character and quality* of data affected by conditions of discovery. Negatives: Data *regionally biased*. Tendency for *inaccurate classification* – can result in *false positives*. Data from small scale interventions *individually unimpressive*.	Positives: Commercial data presents a highly effective *research tool* and can provide *overviews* – due to *scale and distribution*. Caveats: *Not up-to-date*, but constantly being added to. Negatives: *Narrow classification* can create *bias*.	Positives: *Freshness* to data, distinct from older, familiar results. Caveats: Necessary to relate evidence to *means of discovery*. Detailed data from excavations *must be tempered* with broader data from survey. Negatives: Potential for *geographical and chronological bias*.
Summary of proposed methodological organisation of data.	*Outline* a biography. *Refine phases* of chronology. *Accumulate detail* relating to biological, artefactual and architectural evidences. *Select and filter* evidence from databases.	*Classify* based on pre-defined criteria. *Compile* a gazetteer. *Sequence*.	Adopt a *thematic point-of-view*. *Map* change. Create *broad chronologies*. Produce *descriptions* and *sequences*.

Summary of proposed means of engagement with data.	Aggregate and accrue evidences of small scale interventions. Compare trajectories of the development of sites – through comparing like-for-like evidences.	Establish interpretative potential of both positive and negative evidences. Examine variation and distribution. Make judgments based on whether evidence is deemed 'secure'.	Compile and review. Explore and define both drives and inhibitors of change. Disentangle physical evidence, to create explanations.
Summary of author's perception regarding the transformative process of authorship	Assess the contribution of knowledge – via accumulated knowledge and measured against pre-existing benchmark studies.	Allows one to determine / extrapolate interpretative boundaries. Causes one to reassess existing models. Allows for an enhanced understanding.	Enable one to challenge traditional, pigeon-holed evidence. Craft lenses – through which to interpret evidences and generate narratives. Synthesis allows one to build upon existing ideas.
Percentage of grey literature, and other commercially-originated texts in full project bibliography.	10% unpublished grey literature 16% published reports & articles 11% monographs & atlases 0.5% research frameworks TOTAL – 37.5%	30% unpublished grey literature 7% published reports & articles 3% monographs & atlases >1% research frameworks TOTAL – 41%	3% unpublished grey literature 25% published reports & articles 4% monographs & atlases 0.8% research frameworks TOTAL – 32.8%

Table 5: Summary of characterisation findings (discussed in detail in chapter 5)

6.3 -Text 1: The Towns of Roman Britain

6.3.1 - Article Synopsis

The article selected for analysis from the edited, conference monograph entitled The Towns of Roman Britain: The Contribution of Commercial Archaeology since 1990 was Bidwell's – *The Towns of the Midlands and the North* (see Bidwell 2015). This is a twenty-page article: one of eleven within the edited volume – identified in the publication as chapter seven. The focus of the Towns of Roman Britain publication as a whole, was to demonstrate that developer-funded archaeology, and the increase in discoveries attributed to such work, has contributed to an increase in knowledge and understanding regarding the character and development of Roman towns in Britain (Fulford & Holbrook 2015). Bidwell's article focuses specifically on his claim that the increase in developer-funded interventions has led to a significantly advanced knowledge and 'research' into the urban-fringes of Roman towns (Bidwell 2015, 117). Bidwell aims, through his article, to measure the continuing validity of long-standing, traditional perspectives in light of 'new' evidence derived from PPG16 guided excavations. Bidwell frames his intentions, to measure this validity through the selection and use of data, by presenting a traditionally accepted 'baseline' model / theory against which said evidence is organised (in support or opposition), and then discussed. Each baseline model / theory, and attributable data / evidence is structured around a particular theme. The choice to associate differing traditions of data acquisition appears to be a clear and deliberate intention on Bidwell's part, as his choices regarding the baseline models / theories originate from a pre-PPG16, research domain, which he is committed to consistently pair with more recent developer-funded data. This approach in itself offers a distinct separation point, in both time and mode-of-practice, and may account for some of the observations made regarding both the mobilisation of data, and the successful actualisation of a corroborating or counter interpretative narrative.

6.3.2 - How are data selected for inclusion and subsequently used?

Bidwell (2015, 117-118) sets out the parameters of his study stating in the introduction to his article his choice to focus on five case study sites (Lincoln, Chester, Leicester, Brough-on-Humber and Carlisle). His reasoning for this is how these particular sites fit the predetermined criteria for the focus of his study - they are sites with a particular 'status'- designated *colonia* or *civitas capital,* and each locale has been affected, considerably, by modern development and thus have been subject to investigation under PPG16 guidance. Bidwell discounts the significance of any pre- and post-town evidence due to its continued, apparent scarcity, and therefore opts to exclude such discussions from his study (Bidwell 2015, 117). As a study, contained within a volume, purporting to demonstrate the significant evidential and intellectual 'gains' made by PPG16 undertakings, excluding a consideration of periods or materialities where source evidence remains deficient, seems an interesting, if albeit misrepresentative decision in itself. Bidwell's predetermined criteria, and

subsequent dismissal of lesser-evidenced themes, enables his study to avoid any meaningful examination of the constraints posed by wildly variable, but not necessarily atypical data-sets. Fuelled perhaps by the usual contentions and concerns regarding quality vs quantity, and scarcity vs abundance, his decision fails to acknowledge the realities of the true scope of data derived from investigations where the focus and geography of discovery continues to be directed by an agenda that is non-archaeological in its motivation. The decision, regrettably means Bidwell misses the opportunity to explore the disproportionate successes of PPG16 interventions – which in light of the objectives of his article, seems a somewhat short-sighted judgement. It also means his assessment of the contribution of PPG16 interventions to advancement of knowledge and understanding cleverly circumvents any assessment of the potential limitations posed by 'legacy data' (see Wylie & Chapman 2015, 15), uncomfortable truths perhaps to acknowledge, but which are inevitably generated through variable contexts of discovery and production. The premise of Bidwell's article, and the publication as a whole is to demonstrate how PPG16 has led to increased data availability and increased knowledge production, however discounting the types of sites where PPG16 interventions have not led to an increase in data or knowledge only serves to impose confirmation bias upon the study. It is possible that the 'obligation' driver identified as influencing the inception of the publication (project) as a whole, discussed here in the previous chapter is continuing to offer broad guiding principles for the processes of enquiry being applied by Bidwell.

Returning the discussion to how Bidwell selects and uses data within his article, evidence acquired from a range of identifiable inventions within the five case study sites, and is collated and organised through the use of themes. These themes manage to compartmentalise the anticipated urban infrastructure of Roman Towns (i.e. public buildings, defences, cemeteries). The thematic approach adopted enables Bidwell to address topics where the most important advancements have been made (Bidwell 2015, 117), and perhaps unsurprisingly, also correlate with where the highest number of developer-funded interventions have been undertaken. This sense of Bidwell imposing an assessment of 'significance' to help guide his data-selection choices is mirrored by the gazetteer appendix included by Bidwell, which lists what he deems to be the significant investigations between 1990 and 2013, appropriate to his study (see Bidwell 2015, 132-135). It must be said that Bidwell fails to explain how his judgement regarding importance / significance has come about – and leads one to wonder whether the previously mentioned predisposition for assigning value to both the quantity and quality of data-sets is also in-play here, as a means of validating his position (see Coudart 2006, 137). Arguably by affording a primacy to 'significant' data-sets Bidwell is exposing his own 'pre-understandings', as termed by Wylie and Chapman (2015, 11). Essentially omitting to bring clarity to such underpinning judgements leaves Bidwell's data selection choices open to criticism.

As mentioned in the article synopsis above, each of Bidwell's chosen themes are considered with reference to a traditional (benchmark) theory and/or model. The theory / model is always presented first – it is crafted as to set the scene – establishing an idea, which subsequently, helps Bidwell shape both his assessment of any pertinent data and any resultant relational discussion. Data and evidence deemed relevant to each theme is then presented in a controlled, sequential manner, either used in support, or in opposition to the originating traditional (benchmark) theory. Bidwell chooses to adopt a particular pattern - presenting supporting evidence first and; evidence in opposition, typically following. NB: This observation could either be a stylistic choice of the author, or a typified approach associated with works of synthesis, wherein evidence affirming the originating theory is given primacy – consistently being selected and discussed first. It is less likely that this pattern pertains to the author's opinions on evidence hierarchy. An apt example of the presentation strategy employed is Bidwell's comparison between the location of early cremation cemeteries (typically found outside the urban core), and later inhumation cemeteries (typically found closer to the urban core) – where he uses a 1987 reference to establish the anticipated pattern, a 2011 developer-funded example from York to confirm this, and a 2003 example from Leicester, cited in a research publication to then oppose it (see Bidwell 2015, 121). In this example Bidwell uses these contrasting evidences to acknowledge how maintaining a perspective, where a model of invariable conformity can be applied to predicting the siting of different cemetery types, is no longer supported by the data.

In summary the observations have identified that Bidwell imposes particular structures when both organising and discussing data, and he maintains the use of these structures throughout his article. He uses site-selection (namely five case study sites), and developmental-phasing (discounting pre-and post-town evidence) as the parameters of his study material. Through discounting phases where evidence remains scarce, Bidwell avoids addressing the partial and fragmented nature of many PPG16 interventions. Bidwell structures his discussions, and the mobilisation of source-data through the use of themes, and places emphasis on areas where significant discoveries and advancements have been made. Again, arguably presenting a rather prejudicial perspective regarding the contribution of grey literature (as a whole resource) to our understanding of Roman Towns in the Midlands and the North. Finally, Bidwell crafts a discussion-style that forces a confrontation between traditional (often research-derived) theories, and evidences from more recent PPG16 interventions. Then he further utilises a systematised argument construction to contrive a true or false outcome.

6.3.3 - How much priority is given to grey literature?

There are a number of ways the analysis has sought to address this question. As outlined in the methodology the concept of 'source prioritisation' was tested and analysed both statistically and textually. The statistical

analysis involved firstly calculating the percentages of grey literature sources, compared to the whole bibliographical sources for the article, and secondly quantifying the number of sentences containing citations, numerically defining those attributed to grey literature sources, from the total number of cited sentences. The results of this analysis are summarised in *table 6*, and discussed below.

	Total number of bibliographic sources	Number of Grey Literature Sources (%)	Number of commercially-derived sources (%)	Total number of sentences	Number of sentences with citations (%)	Number of sentences with GL citations (%)
The Towns of Roman Britain – The Towns of the Midlands and the North (Chapter 7) (Bidwell 2015, 117–137)	68	11 (16%)	42 (62%)	282	81 (29%)	16 (6%)

Table 6: Statistical data showing the prioritisation of grey literature sources / citations in Bidwell (2015)

The bibliography from Bidwell's article contains a total of 68 individual sources, 11 of those sources can be classified as grey literature, and are representative of 16% of the total number of sources. It is worthy to compare this figure of 16%, to the 10% of grey literature sources referenced across the bibliography for the whole publication – indicating Bidwell utilises proportionally more grey literature sources than other authors contributing articles to the publication. In addition to grey literature, a further 31 sources relate to commercially funded interventions, but are referenced from monographs, published articles or regional research frameworks – all having a wider circulation, and perceivably increased accessibility than grey literature sources (which, to reiterate are characterised by documents such as client reports, interim and /or evaluation reports and research designs – i.e. all *unpublished* sources). In total, inclusive of grey literature and wider developer-funded publications 62% of the total bibliographic sources are derived from commercial contexts, in comparison with 37.5% across the whole publication (see *table 5*). Again this implies Bidwell employs a higher than average use of commercially-derived sources in his article, than the other contributors. The entire 20-page article contains a total of 282 sentences (excluding tables and illustrations). Eighty-one (29%) sentences contain citations (direct quotations or indirect references), and 16 of those can be attributed to grey literature sources – this equates to 6% of the total number of sentences, and 20% of the total number of referenced sentences.

Noteworthy observations to make from this analysis are: 1) in general Bidwell prioritises access to sources originating from developer-funded contexts, as indicated by the high number of such sources in the article's

bibliography (62%), although a lesser proportion of these are grey literature sources (16%); 2) examples of direct citations and in-text referencing of commercially-derived sources is considerably fewer than one would anticipate – with only 20% of citations being derived from grey literature (caveat: there are noted, further 47% of cited sentences, referencing alternative commercially-derived source material). One could postulate that Bidwell utilises grey literature sources specifically to gain a broader understanding, though he is less likely to employ such sources to outline specific and direct evidences, than their published counterparts. This apparent under-realisation of grey literature sources seems somewhat surprising for a publication aimed at demonstrating the impact of PPG16 in increasing knowledge and understanding. However, it fits appropriately with the perceived value of grey literature espoused by the project's authors, and identified in the characterisation undertaken for chapter 5 – that being the utilisation of grey literature sources to accrue the necessary evidences to achieve an improved understanding of broader biographical trajectories, as opposed to acknowledging their unique value in attaining specificity.

In addition to the analysis presented above, that has quantified the contribution of grey literature sources to Bidwell's article, an alternative means of examining priority given to grey literature was achieved through an analysis of what is termed in this chapter's methodology as source hierarchy. This involves examining how sources are organised and prioritised in the modelling of data, and illustration of an idea and/or discussion. It was possible to define and analyse source hierarchy in both quantitative and qualitative terms. As previously acknowledged Bidwell adopts a thematic approach, and consequently chooses to present data (by emphasising its cumulative value) to qualify or contradict the benchmark theories / models that introduce each theme. It was appropriate to utilise this framework, as a systemised means of analysing his source hierarchy decisions. The analysis began with identifying and attributing grey literature citations, specifically, to each of Bidwell's six structured themes – the results of which are presented below.

Theme 1: extramural areas (Bidwell 2015, 118-121)	5 grey literature citations (out of 38) – 13%
Theme 2: cemeteries (Pgs 121-123)	1 grey literature citation (out of 19) – 5%
Theme 3: defences (Pgs 123-125)	2 grey literature citations (out of 16) – 13%
Theme 4: public buildings and infrastructure (Pgs 125-126)	1 grey literature citation (out of 12) – 8%
Theme 5: domestic buildings and urban development (Pgs 126-128)	0 grey literature citations (out of 13) – 0%
Theme 6: forts and fortresses (Pgs 128-130)	5 grey literature citations (out of 8) – 62%

The data captured, and presented above indicates there is some variability in the use of grey literature sources across each of the six of Bidwell's themes. (NB: 'use' refers to either a direct citation or indirect referencing of a particular source-type). Specific information derived from grey literature source material has been employed, only sparingly in four of the six themes (the contribution from grey literature references varying between 5% - 13%), marginally lower than the 16% contribution to the article as a whole. There were some variances observed in the results, which are worthy of mention - the first being the absence of the use of grey literature in the 5th theme (domestic buildings and urban development), and the second being the significantly higher proportion (62%) of the grey literature sources contributing to theme 6 (forts and fortresses). Though this marked variance, potentially influenced by numerous factors - i.e. 1) the differential, 'pixelated' geographical focus of modern-day development (see Evans 2012, 297), 2) discrepancies in sampling and/or discoveries made, as a result of familiarity and expertise derived from routinely encountering certain and identifiable remains during developer-funded interventions (see Jones and Richardson 2012, 3) the inaccuracy and/or inefficiency in categorising grey literature as specific site-types, resulting in a restrictive 'coded' research resource (see Green 2013), is neither acknowledged nor challenged by the author.

Further to considering the variability in the utilisation of grey literature to define and explore Bidwell's themes, just how these grey literature sources are 'prioritised' in the discussions was also analysed (and the findings are discussed below). Paired alongside each other, these observations have enabled a clearer insight into Bidwell's source hierarchy decisions, and the influencing role of grey literature in this process.

Primarily, achieving an understanding of the prioritisation given to particular source materials (namely for the purposes of this study – grey literature), required an examination of how such citations are organised within each of the themes, and the subsequent interpretative weight given to the citations. A study of Bidwell's article, in these terms, identified an emerging pattern to his approach, whereby grey literature citations are mainly utilised in the following three ways: 1) to provide a *comparative example* to primary, priority sites where evidence is presented and discussed in greater detail (Bidwell uses this technique five times with respect to grey literature); 2) use as a *single, specific example* to emphasise and support the traditional / benchmark theory (Bidwell employs this technique four times); or 3) to provide *contrasting, atypical evidence* subverting a theory supported by a greater number of sites (Bidwell uses contrasting examples twice). Examples of how these three techniques are employed in Bidwell's text are discussed below.

Example 1: Bidwell selects the Botchergate site, in Carlisle (see Bidwell 2015, 122) – and emphasises the morphological and geographical changes, observed over time to the extent of the Roman cemetery as a *comparative example* to the primary theory he initially postulates and the eight additional sites presented in addition (NB: the additional site evidence is derived from non-grey literature sources).

Example 2: Bidwell presents a broad discussion about water supplies, establishing a view-point that there is indeed 'little to report upon', then he chooses, again to utilise detail from the Botchergate site to provide a *single, specific example* of an embanked aqueduct conduit (see Bidwell 2015, 125).

Example 3: Bidwell offers a theory that extramural areas expanded and became 'Romanised', encompassing farmsteads and villa structures – and requiring significant spatial reorganisation, however the discovery of a roundhouse settlement, bearing few Roman finds, from Carlisle provides Bidwell with a *contrasting / atypical example* to the postulated theory (see Bidwell 2015, 121).

Additional Example: It is worthy of note how that only a single example, was observed, within Bidwell's article (pertaining to the topic of buildings within Roman forts) whereby a grey literature source was *prioritised and predominant* over other sources (see Bidwell 2015, 129). In this example the grey literature source is presented first, and the detail presented is prioritised over the other source material drawn-upon. It is of particular interest that the 'unidentified' nature of the evidence, depicted in the originating (grey literature) source material is not commented upon further by the author, other than to direct the reader to an additional, non-commercial source, to access a discussion of the structure's potential interpretation.

Is it significant, how coupled with the source quantification data (shown above), that the only example of the prioritisation of grey literature observed in Bidwell's article occurs in the very theme (forts and fortresses) which was found to utilise the highest proportion (62%) of grey literature sources? There is a caveat to this consideration - forts and fortresses, as a theme uses the least number of citations (a total of 8), therefore the prioritisation of grey literature here is perhaps not as significant as the percentage data implies. It is possible to construe how despite using a small selection of grey literature sources in the theme of forts and fortresses, Bidwell evidently draws-upon them more readily, and prioritises their evidential value through means not observed elsewhere in his article.

The analysis of how Bidwell prioritises grey literature in his article - *The Towns of the Midlands and the North* – has comprised a number of complementary observations, the findings of which are best summarised as follows:

- Grey literature evidently forms a small proportion (16%) of textual resources drawn-upon, and referenced in Bidwell's bibliography, and furthermore the in-text referencing of grey literature

source-material accounts for only 20% of the total number of citations utilised in this way. However, it is also worthy of acknowledgement that commercially-derived sources in general make-up over half of the documents referenced in the article's bibliography.

- There is an evident variability in the use of grey literature sources, across each of Bidwell's chosen themes (ranging from 0% to 62%), though this disproportion does not form part of any assessment made by Bidwell, as to the evidential, nor intellectual contribution of developer-funded interventions to an improved understanding.
- Bidwell employs tropes of source prioritisation that are recognisability attributable to the process and practice of synthesis – i.e. compare, contrast, emphasize. And Grey literature, as a source of evidence, is employed routinely across all tropes, however, its prioritisation is somewhat downplayed. Bidwell typically crafts his discussions, whereby grey literature sources are accorded secondary, subsequent, importance – and the analysis has only identified one example where this routine pattern is subverted.

6.3.4 - Is it possible to identify which elements of grey literature are used?

The emphasis and scope of the entire publication, as well as Bidwell's article relates specifically to development-led investigations undertaken between 1990 and 2013, for which the structural guidance for the production of grey literature reports presented in MAP2, and subsequently MoRPHE: Project Planning Note 3 Archaeological Excavations (English Heritage 1990; 2008) has direct relevance. Therefore, an analysis that aims to identify which 'elements' of grey literature are drawn-upon by Bidwell, logically utilises the structural conventions espoused in these two guidance documents. What the analysis initially queried was whether it was indeed possible to establish which structural elements of grey literature reports are drawn upon, and whether direct citations, from specific sections were favoured over summary inferences.

There were a total of 18 citations from grey literature sources noted in the entire article – there are four citations which include specific page and/or figure references, as opposed to fourteen without. The four citations including specific page and/or figure references examine the following information:

- The identification of a lead smelting hearth, to support the characterisation of the function of extramural settlements, as mainly commercial and industrial (Bidwell 2015, 119).
- The presence of a roundhouse settlement, supporting the suggestion that approach roads out of Roman towns gave way to a peripheral agricultural landscape (Bidwell 2015, 121).
- The re-interpretation of the origin of a wall structure - previously thought to be a town wall, now believed to originate from a fort (Bidwell 2015, 123).

- The presence of an aqueduct conduit – evidence of the limited investigations undertaken, and therefore new knowledge gleaned in relation to public infrastructure (Bidwell 2015, 215).

It was noted that although each of the examples given above seem to originate from structural descriptions and feature / function identifications – they, in actuality allow one to elucidate very little else about which elements of grey literature are drawn-up. There is no mention in Bidwell's article to a specific methodology as regards his engagement with grey literature sources. In light of the limitations of the analysis undertaken in relation to identifying which elements of grey literature are drawn upon, for Bidwell specifically, primarily due to the total absence of direct quotations, and the limited number of citations referring directly to page and/or figure numbers from the originating source materials, it was deemed necessary to revise the scope of the analysis, and this revision has already been explained in the methodology for chapter 6.

6.3.5 - Which data-intervention level typifies the Bidwell's main access point to the archaeological record?

As discussed in the methodology section for this chapter (see 6.2), after an unfruitful attempt to identify which elements of grey literature were routinely drawn-upon, as discussed above, the analysis was subsequently revised to consider which aspects of the data-intervention process formed Bidwell's main access point to the archaeological record. This approach involved an evaluation of the sentences and statements made by Bidwell, with direct reference to grey literature sources, but also included an evaluation of the more generalised (and indirectly cited) statements also employed by Bidwell. The analysis employed a data-intervention grading structure, based on the interpretative levels of archaeological intervention, as outlined in this chapter's methodology, (elucidated from an assessment of the two structural guidance documents for the production of grey literature reports, relevant to the PPG16 sources accessed by the author, and outlined in MAP2, and subsequently MoRPHE: Project Planning Note 3 Archaeological Excavations (English Heritage 1990; 2008)). Assessing the occurrences of in-text referencing, through this grading-model, it was possible to classify the 18 citations ascribed to grey literature sources within Bidwell's article as follows:

Interpretative grades → / Citation number ↓	Citation relates to individual context descriptions	Citation relates to feature descriptions and/or data	Citation relates to descriptions and/or data from groups of features	Citation relates to phased data	Citation relates to narrative construction	Citation relates to the wider contextualisation of data	Citation unable to be classified
1			✓				
2			✓				
3		✓	✓				
4			✓	✓	✓		
5				✓	✓		
6					✓	✓	
7			✓		✓		
8				✓	✓		
9			✓				
10			✓				
11						✓	
12			✓		✓		
13		✓	✓				
14						✓	
15							✓
16		✓					
17		✓					
18		✓					
TOTALS	0	5	9	3	6	3	1

Table 7: Grading, according to interpretative levels of data from an analysis of grey literature citations in Bidwell (2015).

The data collated and shown in *table 7* indicates the most frequent data-intervention level referenced by Bidwell are the descriptions of groups of features and their functional interpretation (i.e. roundhouse settlement occupied in the 2nd century (see Bidwell 2015, 121)). The second most frequently used is explanatory detail derived from a discursive appraisal of data (i.e. changes indicated in the extent of early cemeteries (see Bidwell 2015, 122)), followed by descriptions and the identification of individual structural features (references to the plan of fortress baths in Chester (see Bidwell 2015, 129)). It is plausible to elucidate how these three favoured data-intervention levels can be simply accessed, and a cursory overview achieved, via 'key-word' searches of archival documents, using the categorised type-site labels and definitions favoured by the HER (see Fulford & Holbrook 2011; Green 2013; Vlachiditis et. al. 2009). The application of data attributed to such intervention levels could merely constitute an extraction of information; an excavation of archival repositories, rather than an interpretative engagement (see Cooper & Green 2016;

Fulford, Holbrook, Morton & Hardman 2012, 9; Harlan 2010; Hicks 2008, 39). By favouring the utilisation of these specific data-intervention grades Bidwell is able to achieve his anticipated outcome (corresponding neatly with the aim of the publication as a whole) – whereby the fundamental objective of developer-funded data synthesis (including grey literature sources) is not to re-engage, nor re-interpret data, but to accumulate detail, and it doing this realise the cumulative value of such aggregated evidences (see Roth 2010). This approach also aptly represents Barrett's criticism (1990, 45) that discursive theorisation about the past, demonstrates an inability to move beyond the description of data.

The analysis, presented above, has also identified that Bidwell does not use the data-intervention stage, pertaining to individual context descriptions at all. There could be many factors influencing this, such as: 1) the editorial process involved in grey literature authorship is renowned to increasingly favour meta-level data descriptions, and multiple layers of commentary, over the inclusion of primary sourced data (Bradley 2006, 5); 2) the current craft of archaeological synthesis, associated with this type of publication, typically avoiding using data at too variable scales of resolution, to ensure appropriate connectivity of evidence is achieved (Connah 2010; Pluciennik 1999); and 3) both recording and reporting conventions considers primary, context data as 'static', and fails to accurately demonstrate their transformative role in the interpretative process (Chadwick 2003, 110).

In summary, the analysis was successful in achieving an appreciation of which levels / grades of data-intervention Bidwell employed, when referencing grey literature sources in his article. The approach adopted by Bidwell, and observed during the analysis, arguably reflects his more general approach to archaeological synthesis, as a formative process, utilising descriptive commentary to examine the continuing relevance of traditional theories. The often sparse use of grey literature observed is not acknowledged by Bidwell, though it is possible to consider how this choice have been conditioned by a number of influencing factors, such as 1) the central importance placed on data relationality for narrative construction, and relational challenges posed by attempts to mobilise data/evidence represented in varying formats (see Jones 2015, 22; Ten Harkel 2014); 2) a professional / academic preference for knowledge seen as 'filtered' through subsequent interpretative dialogue (derived from more readily accessible publications, as opposed to grey literature reports (see Strathern 2006, 194); 3) the potential 'foreignness' of grey literature as an investigative resource (see Vander Linden and Webley 2012, 6). The analysis has also made it credible to formulate some general critiques as regards the model of archaeological synthesis adopted in Bidwell's article. Namely the emphasis placed on employing selective 'fact retrieval' methodologies, as opposed to a rigorous re-engagement, involving an assessment of the originally assigned conditions of significance (see Connah 2010, 153; Trouillot 1995, 26). As well as the potential disjuncture between the nature of the question or problem posed (i.e. is

this theory still supported by the evidence?), and the scope of the author's analytical persuasions (data used to off-set a polarised mode of questioning) (see Plog 2006, 158).

6.4 -Text 2: Land, Power & Prestige: Bronze Age Field Systems in Southern England

6.4.1 - Chapter Synopsis

The second text selected for analysis, is a chapter which comes from the research publication Land, Power and Prestige: Bronze Age Field Systems in Southern England. The nine-page chapter entitled - *The Straits of Dover and the Thames Estuary*, is identified as Chapter 3 in the publication. Yates's key aim, which he strives to maintain throughout his entire publication, is to profile the distribution and socio-economic characteristics of lowland, Bronze Age field systems in southern England. He states that this atypical, 'lowland' focus has been made possible due to the indiscriminate geographical locations (i.e. not favouring upland sites, as research has tended to do), and the cross landscape, strip-trenching excavation techniques employed within commercial archaeology (Yates 2007, 21). Chapter 3 stands as the first analytical, evidence-led chapter in Yate's publication, wherein he tests his pre-defined methodological approach, which is then repeated, being routinely applied across the remainder of the geographical focused chapters (see Yates 2007, chapters 3 to 11). Similarly, to Bidwell, Yates (2007, 20) positions pre-existing, traditional theory (based on an established predictive modelling technique which has inferred what the archaeological record should look like) as his template model. His methodology relies upon testing newly discovered evidence, comprised mainly of developer-funded interventions, against this model; again an approach with clear similarities to Bidwell. The existence of such as large volume of available data, makes Yate's broad-brush distributional study, a logical, initial analytical task. Yate's exhibits confidence in his ability to take his data-studies a step further by extending these initial broad distributional profiles into more substantial, interpretative discussions. He achieves this by extrapolating site-type and site-function categorisations, as well as chronological-phasing evidence – which collectively form his discursive focus. Arguably, the format and content of grey literature publications correlates directly with both Yate's analytical rationale, and the expediency by which it is delivered. This initial appraisal of Yate's methodology and use of commercially-derived data, is intended to be explored further by the analysis findings described below. Findings which have resulted from asking the same three questions, as were previously considered in reference to Bidwell's article.

6.4.2 - How are data selected for inclusion, and subsequently used?

Yates's foremost focus is the mapping of field-systems dating to the 2nd and 1st millennium BC (the late Bronze Age) in order to establish a distributional study, which is inclusive of lowland sites (see Yates 2007, 20). A further, and equally significant aim of Yates, is establishing a revised perspective on the evidence, from which

theories regarding Bronze Age field-systems can be derived. Yates asserts how pre-existing theories, originating from the early 1980s and relating to Bronze Age field-systems have been modelled upon limited and potentially biased data. Implying such theoretical models were unjustly skewed by a predominance of evidence from upland sites, and contingent, merely upon predictions in areas where there was scant evidence (i.e. lowland sites) (2007, 20). Through his study, Yates aims to re-address this perceived imbalance. However, Yates finds himself tied to utilising these somewhat inclined, pre-existing theories to form the baseline, upon which any alternative propositions can be evaluated.

Yates states in his methodology that his study will involve the examination of 'all available published and developer-funded work' (2007, 20). Yates is careful to provide a thorough explanation of his approach, in this vein, and is clear to emphasise the considerations he makes, as regards data inclusion: i.e. all data must have been securely dated (by excavation or survey methods); and the identification of features, appropriate to the study, such as field systems, land enclosures and linear ditches must have been proved to have been corroborated by associated evidence (Yates 2007, 9). This indicates that Yates's trawl of the source material goes above and beyond the utilisation of basic key-word searches, a more commonly applied technique adopted by a number of the other projects studied and characterised here in chapter 5 (see Cooper & Green 2016, 287; Fulford & Holbrook 2011, 326; Green 2013, 3019; Thorpe 2012, 35-36). Yates's approach exhibits a thoroughness often attributed to his chosen, synthetic research monograph (see Connah 2010, 48 – 50). His strategy demonstrates both, a sense of caution, and a confident familiarity with the source material. Evidently such considerations allow him to carefully navigate commonly occurring issues, such as misidentified or miscategorised sites, and steers him away from placing total confidence in single-word or type-site classifications favoured by the Historic Environment Records (HER) (Yates 2007, 11). (NB: the limitations of indexing, categorisation and use of basic, key-word search criteria, in synthetic endeavours, are also outlined by Evans & Moore 2014, 235; Morrison, Thomas and Gosden 2014; Vlachiditis *et. al.* 2009).

Yates imposes geographical parameters for his data selection: the area of focus for Chapter 3 being inclusive of evidence from the Straits of Dover and the Thames Estuary, as the chapter title suggests. Data for the specified locale are selected according to loosely identified 'site-types' - i.e. settlements, field-systems and land boundaries. Though Yates does also chose to compile and include separate spot-data for period-specific metallurgical finds (Yates 2007, 21). The data gathered are then plotted on a series of distribution maps. Separately the ascribed data show: 1) the distribution of Bronze Age metalwork - modelling early, middle and late Bronze Age distribution patterns (see Yates 2007, fig 3.1); 2) the accumulated distribution of recorded settlement and land boundary sites, discovered and identified between 1990 and 2002, which enables Yates to emphasise the quantitative influence commercial undertakings has had on the sheer number of

discoveries (see Yates 2007, fig 3.2); and 3) the distribution of all late Bronze Age settlement sites, field-systems and land boundaries in the study area, inclusive of 74 named sites (see Yates 2007, fig 3.3). These newly constructed distribution maps serve as the evidential foundation for Yates's ensuing discussions. Yates (2007, 8) also demonstrates his keenness to explore the significance, and test the validity of what he defines as negative evidence. Through the course of his study, identifying and differentiating, geographically, both positive and negative evidence (i.e. the presence and absence of evidence and sites) affords Yates the opportunity to comment upon the significance of voids or 'empty areas' in his distributional patterns (Yates 2007, 12). Arguably, implementing such a consideration allows Yates to overcome and circumvent any concerns, or criticisms his readers may have regarding geographical or concentrational bias; something which has been previously acknowledged as a potential risk for any synthetic project (see Bradley *et. al.* 2016, 18).

In summary, there is a clear and considered approach to the ways in which Yates selects and uses data, from his chosen source material. Yates appears to have anticipated certain pitfalls, and pre-empted commonly-occurring issues regarding particular methods of data selection. Demonstrating an informed awareness of the format, content and limitations of using commercially-derived data-sources, including grey literature. Yates manages to circumvent any perceived issues by adopting a more rigorous methodological selection process – which involved a deeper appraisal of source-content, and an appreciation of the heterogeneous nature of data, frequently typified by the confinements of the archival process. In addition to Yates's data selection choices, is the concentrated rigour by which new perspectives are attained. The distributional modelling, which extent to include both positive and negative data, creates both the foundation for Yates's discussions, and the parameters by which Yates is able to challenge current theory.

6.4.3 - How much priority is given to grey literature?

Applying the same qualitative and quantitative analytical techniques, as with Bidwell's article, has allowed an insight into how Yates prioritises grey literature within his chapter. The analysis undertaken has also achieved a comparative understanding between the 'perceived' and 'realised' role of grey literature within his publication. This analysis, and its findings are explored below.

Yates regards grey literature (or what he terms 'client material' (Yates 2007, 13)) – as a highly effective research tool. According to Yates, this client material is the most up-to-date, though arguably also the least accessible, data source, currently available in the archaeological domain (*ibid*.). Yates chooses to position his entire research undertaking around this assertion, wherein his desk-based research strategy openly prioritises access to data and reports held by archaeological field units – said 'client material' (Yates 2007, 9).

A simple statistical analysis of the bibliographic sources attributed to chapter 3 of Yates's publication, was able to test the fulfilment of this objective. The analysis has produced the following findings (NB: these are also summarised below in *table 8*). The associated bibliography from Yates's chapter contains a total of 25 references, and it has been possible to classify six of these sources as grey literature (representative of 24% of the total number of sources). A further three sources can be attributed to wider commercial undertakings, comprising society proceedings, monographs and journal articles. In total nine sources out of the total of 25 (a mere 36%) can be directly attributed to commercial contexts. It is of additional value here to compare the number of grey literature and wider commercially-derived sources for chapter 3, with those from the publication as a whole (as originally summarised above, in *table 4*). A total of 819 sources are contained within the entire bibliography for Yates's publication, 249 (30%) can be classified as grey literature, and a further 91 (an additional 12%) originate from commercial sources, comprising published articles, monographs and/or research frameworks. Evidentially, chapter 3 utilises marginally less grey literature and commercially-derived sources than the publication as a whole (36% of the chapter, as opposed to 42% of the whole publication).

	Total number of bibliographic sources	**Number of Grey Literature Sources (%)**	**Number of commercially-derived sources (%)**	**Total number of sentences**	**Number of sentences with citations (%)**	**Number of sentences with GL citations (%)**
***Land, Power and Prestige* – The Straits of Dover and the Thames Estuary (Chapter 3) (Yates 2007, 20-28, 146 - 148)**	Exc. Table 3 25 ---- Inc. table 3 70	Exc. Table 3 6 (24%) ---- Inc. table 3 28 (40%)	Exc. Table 3 9 (36%) ---- Inc. table 3 18 (26%)	Ex. Table 3 114 ---- Inc. table 3 178	Ex. Table 3 35 (30%) ---- Inc. table 3 99 (56%)	Ex. Table 3 8 (7%) ---- Inc. table 3 35 (20%)

Table 8: Statistical data showing the prioritisation of grey literature sources / citations (Yates 2007)

The analysis further considered in-text, direct prioritisation of sources, specifically quantifying how many sentences were attributable to grey literature as a source of data, and comparing this with the use of other types of source material throughout the chapter studied, in order to establish how Yates prioritises grey literature.

It was identified that Yates's nine-page chapter contained a total of 114 sentences, and that 35 of those sentences include citations (30% of the whole chapter text). Furthermore, eight of those sentences were

attributable to grey literature sources (7% of the entire text, and 23% of the cited sentences). This correlates appropriately with the proportion of grey literature sources cited in the chapter's bibliography (24%), as presented and discussed above.

There is, however an additional consideration to data obtained and presented above, which has potential ramifications on any inferences made, and that is the additional presence of figure 3.3, in the chapter (see Yates 2007, 23). The figure was deemed worthy of addition to the analysis undertaken – not only for its interpretative weight within the chapter, but also because of the sheer volume of associated citations contained within the appended table, and used by Yates to construct the figure (see Yates 2007, 146 - 148). As mentioned in the previous section, figure 3.3 from Yates's publication shows the distribution of later Bronze Age settlements, field-systems and boundary features within the study area, and is inclusive of 74 sites. The appended table details the source material, and associated citations consulted in order to produce figure 3.3, and itself is inclusive of 56 total citations. Twenty-five (45%) of these references are grey literature sources, and a further 17 (30%) are derived from wider commercial contexts. When combining the quantified data for the chapter text with the supplementary information provided in table 3 (the data sourced by Yates in order to produce figure 3.3) a different picture emerges. It tells us that Yates consulted and referenced a total of 28 grey literature sources (amounting to 40% of the total number of sources cited for the chapter). As well as consulting a further 18 references, which were derived from wider commercial contexts (a further 26% of the total number of sources) (NB: this data is also summarised above in *table 8*). Cumulatively this evidence can be taken to support an inference that commercially-sourced material, inclusive of grey literature, does indeed present the priority source within Yate's chapter (representative of 66%).

The analysis presented and discussed above has enabled the following conclusions to be drawn, as regards the use of grey literature, by Yates in the production of chapter 3. The combined statistics tell us that the reference material Yates accessed to produce figure 3.3 has a significant impact upon the attribution of grey literature sources within the chapter (and also its influencing role on the chapter's content). Furthermore, the simplistic distributional indicators represented in figure 3.3 suggests Yates utilised basic source information, such as site name, a brief site description / identification and grid referencing, to compile the figure. It is plausible that once familiar with the often standardised format of grey literature (and its archival representation within an HER database), it would be straightforward to acquire such information from a rapid survey of the text. This supports Yates's methodological approach to relying upon the classification and categorisation motifs commonly summarised in client material, albeit arguably superficially.

The final analysis undertaken, in order to fully consider how Yates prioritises grey literature, studied exactly how data from those sources are organised and prioritised. The analysis followed the same methodology that was applied to Bidwell's article, and thus generated both the qualitative and quantitative findings, which are discussed below.

In marked contrast to what was discerned from the same analysis of Bidwell's article (the findings of which are discussed previously in this chapter – section 6.3.3) whereby Bidwell chose to structure evidence according to theme, Yates choses to utilise distributional patterns, which, arguably have a broader potential of being cross-thematic, to frame the available data. Both Yates's research approach, and his narrative carries the pursuit of his objective at a swift pace, the process moving - from data source → to observed/generated patterns → to explanation. The patterns that are generated are initially encapsulated within, and represented by the detailed figures he produces, although these patterns are then extended into wider discussions. The analysis identified 4 key structuring 'themes' emerging from Yates's observations and inferences, and these have been grouped, and categorised as follows:

1. Bronze Age metallurgical artefact distribution (inclusive of figure 3.1) (see Yates 2007, 20-21)
2. The distribution of Bronze Age sites (inclusive of figures 3.2 & 3.3) (see Yates 2007, 21-24)
3. Differential patterns of social inequality (see Yates 2007, 24-26)
4. The significance of estuarine settlements and potential contact networks (see Yates 2007, 26-28)

The attribution of grey literature sources to each theme was quantified and is shown in *table 8* below.

Theme, as adopted within chapter 3	**Page numbers and figures associated with each theme**	**Total number of citations**	**Number of grey literature citations**	**Number of grey literature citations (shown as %)**
1: Bronze Age metallurgical artefact distribution	Pgs 20–21, & figure 3.1	3	0	0%
2: The distribution of Bronze Age sites	Pgs 21–24, figures 3.2 & 3.3 & table 3 (pgs 146–148)	In text: 9 Inclusive of table 3.1: 63	In text: 3 Inclusive of table 3.1: 25	33% 40%
3: Differential patterns of social inequality	Pgs 24-26	8	4	50%

4: The significance of estuarine settlements and potential contact networks	Pgs 26-28	9	1	11%

Table 9: Quantification of grey literature sources which can be attributed to each of Yates's themes in Chapter 3.

The analysis results outlined in *table 9* (above) suggest that Yates draws more considerably upon grey literature sources, mainly for two of this chosen themes – the distribution of BA sites, and differential patterns of social inequality, 50% and 40% of sources used are grey literature, respectively. With grey literature sources playing a lesser (or no) part in the development of the other two themes discussed within the chapter (the grey literature sources in BA metallurgical artefact distribution, and the significance of estuarine settlements and potential contact networks account for 0% and 11% respectively, of the total number of sources used). The analysis also indicates how the sources drawn upon to create table 3, favourably increases the total percentage of grey literature sources drawn upon for its corresponding theme (the distribution of BA sites – 33%→40%). Also worthy of note is the observation that 39% of the source material used purely to produce figure 3.3 is derived from grey literature sources. The ways in which Yates prioritises these grey literature sources, and the contribution and impact they have, was the focus of the final analysis undertaken, and the findings are presented and discussed below.

It was possible to explore how Yates organises and prioritises grey literature citations, in relation to his argument construction and the interpretative weight given, through the groupings established for analysing Bidwell's article, and listed previously (in section 6.3.3). This was possible as it was observed how the 'narrative construction methods and preferences' utilised by Yates were in fact stylistically similar to those adopted by Bidwell. Therefore, the same key evidential indicators, for argument / narrative construction have thus, been applied here (i.e. comparable, site specific, contrasting, generalised). Arguably this observation suggests there may be a correlation with the use of such constructional techniques and indicators, and the genre of archaeological synthesis writing, in general. However, exploring the extent by which this is true, is beyond the objective of this particular study. The analysis here, rather focused mainly upon two of Yates's themes (the distribution of BA sites and differential patterns of social inequality). These were both selected for further scrutiny because they contained the most cited grey literature sources, out of the four of Yates's themes, as confirmed in the findings shown above in table 9.

As previously identified, a significant number of grey literature sources (22 / 39%) are utilised to help compile the distributional map (figure 3.3). In compiling the distribution map, Yates evidently employs a technique where the *comparability* of evidence helps shape the purpose of the figure – in this particular example the primacy of settlement and boundary site locations are emphasised by comparing like-for-like sites (see Yates 2007, 21). Later-on in the chapter text, as Yates extends his discussion, stemming from the initial distributional evidence, to encompass artefactual evidence and site 'status' implications, Yates employs *single, specific site examples* (see Yates 2007, 22), to highlight specific ideas. Yates also uses grey literature sources to provide *contrasting evidence*, where evidence points to an atypical example of site longevity – from late Bronze Age to the early Iron Age (see Yates 2007, 23). A further feature of Yates's use of grey literature sources is where *specific and/or generalised examples* are given to extend his discussion, where evidence derived is either used as a firm, evidence-based example to support a generalised observation, or employed to provide an additional, supporting example to validate a particular theory. These techniques are employed frequently in Yate's discussions regarding social inequality (see Yates 2007, 24-26), where 50% of the citations he draws upon are grey literature sources.

This section has covered a complex set of analytical methods, used to characterise just how Yates prioritises grey literature sources, over the other source-types used in his publication. It is of benefit to draw-together the separate analytical methods and their findings, in a series of concise summary statements.

- Grey literature sources account for 24% of the bibliography associated with the text from Yates Chapter 3, and this figure is just marginally less than the total percentage of grey literature sources contained within the whole publication's bibliography (which stands at 30%).
- There is marked variability in the use of grey literature sources, when their use is considered across the four key themes Yates covers in his chapter (ranging from 0% - 50%). However, in the construction of his accompanying figures and tables, where it has been possible to analyse the contributing sources, Yates routinely draws-upon larger numbers of grey literature sources (i.e. figure 3.3 – 39%; table 3 – 40%).
- Comparable indicators of synthetic narrative construction are observed in Yates's chapter, as they were in Bidwell's article. Utilising tropes of compare, contrast, generalise and specify, enables Yates to bring forth data sourced from grey literature, and enable them to contribute, or in some instances be prioritised within the chapter. The comparative like-for-like method of data organisation is favoured, and presented within Yates's distribution maps.

6.4.4 -Which data-intervention level typifies the Yates's main access point to the archaeological record?

The analysis for this particular question categorised the individual grey literature citations present in Yates's chapter 3, according to the grades of engagement – presupposed by the nature of the 'data' used and using the framework outlined in this chapter's methodology. The results of this analysis are presented below in *table 10*.

Interpretative grades → / Citation number ↓	Citation relates to individual context descriptions	Citation relates to feature descriptions and/or data	Citation relates to descriptions and/or data from groups of features	Citation relates to phased data	Citation relates to narrative construction	Citation relates to the wider contextualisation of data	Citation unable to be classified
1						✓	
2						✓	
3						✓	
4					✓		
5		✓	✓	✓			
6					✓		
7		✓					
8				✓	✓		
9				✓	✓		
10				✓	✓		
11					✓		
Totals	0	2	1	4	6	3	0

Table 10: Grading, according to interpretative levels of data from an analysis of grey literature citations in Yates (2007, 20-28).

The analysis has shown how the in-text use of grey literature frequently draws upon narrative and phased data (each demonstrating a particular interpretative capacity, then capitalised by Yates). For example, he considers the grey literature sourced interpretation that the axial arrangement of a later Iron Age settlement, was influenced by the pre-existence of a major Bronze Age site boundary (see Yates 2007, 23). In contrast to this observation, if one were to add the sources from table 3.3 to the analysis findings (data not shown in *table 9*), the frequency of Yates's use of data associated with features and groups of features would increase significantly. This is as a result of Yates prioritising feature identification, functional interpretations and locational data to produce his distributional maps (i.e. Yates 2007, fig. 3.3). A final discovery, is how similarly, to Bidwell, Yates does not draw-upon individual context detail from the grey literature sources he employs, however at the opposing data-intervention scale, there is evidence of some, albeit infrequent use of wider

contextualised data. For example, Yates refers to the speculative suggestion that the studied coastline has been significantly eroded since the Bronze Age (2007, 21).

The analysis has revealed key characteristics of Yates's approach to acquiring and utilising grey literature data, at particular 'intervention levels', that correspond to those occurring in Bidwell's article. It has been previously stated how Yates's approach indicated greater confidence in accessing and filtering information from commercially derived source material, however the fundamentals as regards principal access points, from an overall synthetic approach appear to share key commonalities. Those being the preference for phased / narrative-driven data. Other projects utilising high volumes of commercially sourced data in a synthetic manner, have identified the inherent value in forming, and then subsequently testing, discursive categories by seeking like-for-like traits in broader data patterns (see Green 2013, 309-311). Arguably 'phased' data provides the parameters of such discursive categories, and narrative-driven data exemplifies the context of any meaningful consumption. Trouillot, in his publication '*Silencing the Past*', spoke of the dualistic endeavour of retrospective acts of production – where one is drawn to consider both the 'facts', and 'a narrative of those facts' (1995, 2). Both Yates and Bidwell, whether consciously, or subconsciously, have acknowledged how the data they have selected from grey literature have already journeyed through the processes of fact creation, assembly and narration (*ibid*., 26). The act of synthesis, which typifies both their approaches, merely imposes a retrospective significance to those facts.

The two texts that have been analysed and discussed above, and commonalities observed therein have provided much to consider and reflect upon, though it is necessary to set those thoughts aside for now, as the discussion moves onto the third and final textual analysis – Lambrick and Robinson's Thames through Time (Later Prehistory). As was the approach for the previous texts, the following section begins with a brief chapter synopsis, prior to a presentation and discussion of the analysis results.

6.5 – Text 3: Thames through Time (Later Prehistory)

6.5.1 - Chapter Synopsis

The chapter selected for analysis from the synthesis monograph Thames through Time: Later Prehistory was chapter 4, a forty-page chapter entitled – *Settlement and Settlement Patterns*. As identified in the project characterisation exercise undertaken in chapter 5, and summarised for the purposes of this analysis in *table 5* (above), the Thames through Time publication utilises a particular thematic structure – and the overall aim of the publication is to investigate the 'character' of these chosen themes (Lambrick and Robinson 2009, 4-

5). On the surface, this aim may seem slightly nebulous in scope, however when actualised for the theme of settlements and settlement patterns, in chapter 4 – sub-categorising key morphological distinctions between settlement-types allows the authors to construct frameworks for assessing and ascribing the aforementioned 'character'. These frameworks (such as those indicative of subtler, adaptive and evolutionary traits) further enable the authors to model expectations of the specific morphological settlement-type(s) being discussed (see Lambrick and Robinson 2009, 91). In an approach also mirrored by both Bidwell and Yates, long-held, traditional perspectives dominate the structure(s) adopted, the defined categories used, as well as the descriptions sought. The influence of the sub-categories used by Lambrick and Robinson, on how data are selected and organised, particularly data derived from grey literature publications is explored in analysis undertaken, and presented and discussed below.

6.5.2 - How are data selected for inclusion, and subsequently used?

The chapter analysed (see Lambrick and Robinson 2009, 91-131) focuses specifically on the character and chronological development of later Prehistoric settlements and settlement patterns. For Lambrick and Robinson (2009, 91), chronological and geographical frameworks (as a means of organising morphological categories of settlements) is merely just the beginning of a much wider, richer explanation, hence their decision to adopt a thematic structure for their publication. The authors are keen, from the outset, to clarify the types of 'features' and artefactual evidences which can be attributed to each theme – however, for the purposes of this analysis, the focus will be on their treatment and explanations of the theme of settlements and settlement patterns, in later Prehistory. Lambrick and Robinson, similarly to Yates, are equally as willing to acknowledge both the universality (of application) and limitations of such cumulative evidences, and they posit this as a potential caveat to both their endeavours, and the traditional perspectives they seek to confront.

Within their chapter, Lambrick and Robinson select eight morphological categories for discussion (listed below) and each of these are underwritten by a synthetic accumulation of relevant data and source materials, including but not exclusive to that which is derived from commercial undertakings.

1. Seasonal mobile living
2. Dispersed open settlements
3. Ordered open settlements
4. Settlements & field-systems
5. Long-lived open settlements
6. IA House, Pen & Paddock Settlements
7. IA enclosure clusters
8. Enclosed farming settlements.

The eight categories are structured, and thus are to be read as a simplistic appraisal of the developmental stages / attributes of settlements and settlement patterns – a structural and morphological appraisal which largely adheres to traditional theories. i.e. seasonal mobility → open settlements → long-lived house settlements. The guiding principles adopted by the authors in reference to data organisation are the distinctive features, and expected characteristics traditionally associated with each category – with marked emphasis placed on cumulative, relational and progressive evidences. This underpinning principle enables Lambrick and Robinson to carefully direct, and justify their choice, and subsequent use of source material. Relational and progressive variability in data and evidences, crucially are derived from the location, size, layout, intensity, occupation length and function of later Prehistoric settlements, and thus it is upon these predetermined categories that their narratives are modelled (Lambrick and Robinson 2009, 91). Arguably, although the addition of commercially-derived data has the potential to introduce new data to Lambrick and Robinson's project, the choice to define traditional categories and pursue patterns in such evidence, and derive a reading from such patterns seems less likely to result in a richer reading (see Evans 2012, 295). The approach is more likely to achieve self-perpetuating validation, wherein counter-arguments are inhibited (see Coudart 2006, 137).

6.5.3 - How much priority is given to grey literature?

Lambrick and Robinson (2009, 4) make clear statements about the value of grey literature in the opening sections of their publication. For one, they recognise how the finer detail provided in such publications can enhance broader viewpoints – enabling them to map finer, more localised trajectories of change. They also believe that new data held within grey literature sources can enable them to build upon traditional views – with the crafting of a synthetic viewpoint, such as achieved through their Thames through Time publication providing a sense of freshness and distinctiveness.

The statistical analysis undertaken for chapter 4 of the Thames through Time publication follows the same methodology as explained and employed previously for both Bidwell's article, and Yates's chapter. Beginning with identifying the number of grey literature sources used, and comparing this to the total number of sources. Then analysing the number of sentences attributed to grey literature citations, and comparing this against the total number of cited sentences in the chapter, as a whole. The results of the analysis are summarised in *table 11* below, and discussed in further detail here.

	Total number of bibliographic sources	Number of Grey Literature Sources (%)	Number of commercially-derived sources (%)	Total number of sentences	Number of sentences with citations (%)	Number of sentences with GL citations (%)
Thames Through Time (Later Prehistory) – Settlements and Settlement Patterns (Chapter 4) (Lambrick and Robinson 2009, 91-131)	135	16 (12%)	Exc. GL 10 (7%) Inc. GL 26 (19%)	562	198 (35%)	20 (4%)

Table 11: Statistical data showing the prioritisation of grey literature sources / citations in Lambrick & Robinson (2009, 91-131)

The associated for the bibliography for chapter 4 (Settlements and Settlement Patterns) contains a total of 135 separate bibliographic references. Sixteen (12%) of those are grey literature sources, and a further 10 (7%) are additional sources originating from commercial activities, though referenced as journal and magazine articles, and monographs. Collectively 19% of the chapter's sources are commercially derived. Comparing the statistical data for the individual chapter, with that compiled for the whole publication (see table 5) – where 32.8% of the entire bibliography are commercially-derived sources, with 3% able to be identified as grey literature – indicates a marked reduction in the utilisation of commercially-derived sources, as a whole in chapter 4, coupled with a significant increase in the use and attribution of grey literature sources. There could be a number of reasons for this noted increased use of grey literature sources in Lambrick and Robinson's chapter 4. One explanation may relate to the specificity of the data utilised for the chapter theme being readily available in grey literature sources, made visible, to the authors through accurate categorisation of sites and data. Another possible course of reasoning worthy of note, comes from a postulation made by Bradley *et. al*. in their publication - The Later Prehistory of N. W. Europe (2016, 17-21) – wherein their extensive assessment of grey literature repositories has indicated a systematic bias towards the recovery and reporting of later Prehistoric sites. Both explanations imply that a further understanding of the mechanics and justifications, of how data contained within grey literature has been created, should be necessitous to circumvent the implications of potential bias (see Bradley et. al 2016, 24; Bradley 2012, 174; Cooper & Green 2016, 275; Trouillot, 1995, 146). A viable recommendation, when considering the variable contexts of production of the source-data utilised in the chapter; one which has also been noted with some evident frequency within this thesis.

Continuing with the analysis undertaken to establish how grey literature is prioritised in Lambrick and Robinson's chapter, the study then focused on the in-text citations, the results of which are shown in *table 11*. The forty-page chapter contained a total of 562 sentences (excluding figures), 198 of those (35%) contained citations, and 20 of those sentences can be attributed to grey literature citations – this equates to 4% of the total number of sentences, and 10% of the total number of referenced sentences. A further 16 sentences (8% of total cited sentences in the text) are attributable to wider commercially-derived sources, such as articles and monographs – bringing the total number of sentences associated with commercially-sourced data to 36 (18%). These results exhibit clear similarities with the percentages of commercially-sourced references in the whole-publication bibliography, and demonstrate that perhaps such source-data plays a less significant role in the text, than originally stated by the authors – 'much of the work cited in this volume has been carried out on road schemes, pipelines, housing and commercial developments …' (Lambrick and Robinson 2009, 10). The analysis of source hierarchy within the chapter (presented and discussed later in this section), should reveal if there is any substantive evidence to support this conclusion.

The analysis then focused on the source hierarchy within the chapter by quantifying the number of sources attributed to each morphological category, and specifically sought to emphasise the prioritisation of grey literature sources within those categories. Here the findings are presented according to the categories as defined within the text (see *table 12* below).

Morphological category (within Chapter 4)	**Page numbers associated with each theme. (Lambrick & Robinson 2009)**	**Total number of citations**	**Number of grey literature citations**	**Number of grey literature citations (shown as a %)**
1. Seasonal mobile living	Pgs 91 – 94	6	1	17%
2. Dispersed open settlements	Pgs 94 – 99	18	3	17%
3. Ordered open settlements	Pgs 99 – 101	2	0	0%
4. Settlements and field-systems	Pgs 101 – 105	16	3	19%
5. Long-lived open settlements	Pgs 105 – 109	43	1	2%
6. Iron Age House, Pen & Paddock	Pgs 109 – 115	31	5	16%
7. Iron Age enclosure clusters	Pgs 115 – 118	19	2	11%

8. Enclosed farming settlements	Pgs 118 – 130	60	9	15%

Table 12: Quantification of grey literature sources which can be attributed to each of the categories/themes adopted by Lambrick and Robinson in chapter 4.

The analysis has identified that the typical 'range' of grey literature sources, as a percentage of the total number of sources referenced in each of Lambrick and Robinson's chapter falls comfortably between 11%-19% (with a mean of 15.8% - NB: calculation omits categories 3&5, which are discussed below). This observation is only marginally higher than the percentage of grey literature cited in the chapter as a whole, which stands at 12%. There are two clear anomalies identifiable within the results – those being the percentages of grey literature for the categories of Ordered Open Settlements and for Long-lived Open Settlements. Arguably it might be expected that within a theme (Ordered Open Settlements) which only utilises a total of two citations, that the likelihood of either of those being grey literature is incredibly slim. However, it is surprising to note that despite utilising forty-three citations for the category of Long-Lived Open Settlement, Lambrick and Robinson are only able to draw-upon one grey literature source (a mere 2% of the total number of citations). Further analysis indicates that an additional three sources can be categorised as originating from commercial undertakings, however this only adds a further 7%, collectively totalling 9% of the total number of citations made. Some of the commentary narrative in Lambrick and Robinson's publication, may in fact provide possible explanations for the scarcity of evidence pertaining to open settlement forms. For example – Lambrick and Robinson (2009, 91) question the validity of a morphological division between open and enclosed settlement-types. They also common upon the inadequacies of transect excavations in be able to fully clarify the character of an extensive (open) settlement (Lambrick and Robinson 2009, 94 & 124).

The analysis presented so far has provided a quantifiable sense of the contribution and prioritisation of grey literature sources within Lambrick and Robinson's chapter. Further studies were undertaken to tease out exactly how grey literature contributed to their discussion, by studying their choices and methods of data synthesis and narrative organisation. As with Bidwell, and Yates, Lambrick and Robinson's methods of structuring their discussion exhibit similar traits – that can also be grouped into the following three approaches: 1) *comparative* examples to augment a key point; 2) *single, specific* examples to support a tradition viewpoint; 3) *contrasting or atypical* evidence to subvert a traditional viewpoint, or emphasise the uncommonness of evidence.

Lambrick and Robinson draw heavily on the use of *comparative* reasoning, and within their chapter 4, there are twenty-two examples of their use of grey literature to provide supplementary data-sets supporting others which originate from more traditional sources, and which are frequently discussed in greater detail. For example, it is common for them to phrase the introduction of additional sources as such 'in a few similar cases' (see Lambrick and Robinson 2009, 98).

There is one instance where grey literature sourced data, is *prioritised* over traditional supporting data, which is subsequently presented. In addition, there is one instance of Lambrick and Robinson using a grey literature source to highlight a *specific*, and somewhat *atypical* example – in this instance one pertaining to a settlement which had undergone a series of architectural changes to its enclosure form, spanning from the middle to later Iron Age (See Lambrick and Robinson 2009, 124).

The analysis has shown how use of single, specific examples is much less common in Lambrick and Robinson's work. The authors evidently exhibit a preference for building clarity, or sustaining their position through the use of successive examples / data-sets, which is often a common practice associated with archaeological synthesis. This observation brings the focus back to the repeated argument about the unquestioning value placed on quantities of data, and the frequent reliance on accumulating such quantities of data to sustain anticipated categories of evidence, which in turn remain intransigent and impenetrable to counter-perspectives (see Jones & Richardson 2012, 86-94; Roth 2010, 338; Startin 1993, 185-6). This lends itself to the idea that Lambrick and Robinson's approach is largely founded on the assessment of data, already subsumed and potentially inhibited within predefined categories, imposed at the point of discovery – which stands in direct contradiction to their stated objective of creating richer explanatory frameworks (which aim to transcend the traditional interpretative forum that categories impose (see Lambrick and Robinson 2009, 91; also Thorpe 2012, 36) – (for a comparative objective see Fairclough 2013, 7-12).

It is possible to summarise the findings of the presented analysis, regarding how much priority Lambrick and Robinson give to grey literature in the development of their discussion in chapter 4, as three key observations:

1) Grey literature accounts for 12% of the total number of references utilised, which contrasts starkly to the 2% of grey literature sources that make up the bibliography for the whole text. However, in-text referencing, using grey literature sources is observed in only 4% of the total number of sentences.

2) When analysing the use of grey literature sources across Lambrick and Robinson's eight categories, there is a defined range of between 11% - 19% of the total number of citations, with only two categories indicating

usage which falls far below this range. Explanations for this marked 'dip' in grey literature referencing has been pre-empted by Lambrick and Robinson's introductory assessment.

3) Lambrick and Robinson rely heavily on using grey literature sourced data, as secondary and comparative to, more traditional sources. Instances of where grey literature it used in challenge, or as a prioritised source of data, are sparse in comparison.

6.5.4 - Which interpretative invention level typifies Lambrick and Robinson's main access point to the archaeological record?

The third, and final analytical question posed of Lambrick and Robinson's chapter is which interpretative intervention level constitutes their main access to data held in grey literature. This analysis repeated the methodology applied to both Bidwell and Yates, and studied each use / grey literature citation in turn, in order to categorise which aspect of the data, Lambrick and Robinson favoured the most. The results of this analysis are presented below, in *table 13*.

Interpretative grades → / Citation number ↓	Citation relates to individual context descriptions	Citation relates to feature descriptions and/or data	Citation relates to descriptions and/or data from groups of features	Citation relates to phased data	Citation relates to narrative construction	Citation relates to the wider contextualisation of data	Citation unable to be classified
1			✓	✓			
2					✓		
3			✓	✓			
4			✓				
5			✓	✓			
6				✓			
7			✓	✓	✓		
8			✓		✓		
9			✓	✓			
10			✓	✓			
11			✓	✓	✓		
12				✓			
13				✓			
14			✓	✓			
15			✓	✓			
16			✓	✓			
17			✓	✓			
18			✓	✓			

19			✓	✓			
20			✓	✓	✓		
21			✓	✓	✓		
22			✓		✓		
23			✓		✓		
24			✓	✓			
Totals	0	0	20	19	8	0	0

Table 13: Grading, according to the interpretative levels of data from an analysis of grey literature citations in Lambrick and Robinson (2009, 91-131)

The results show a definite trend towards Lambrick and Robinson utilising feature descriptions / identifications, and phased data, when accessing grey literature. And perhaps given the analysis findings already presented and discussed above, this was to be anticipated. The chapter – Settlement and Settlement Patterns, as well as the publication as a whole – seeks to establish a perspective on the 'dynamics of change', both within and between the eight morphological categories of settlement (Lambrick and Robinson 2009, 5). In order to identify morphological changes, Lambrick and Robinson utilise like-for-like comparisons, and chose a 'feature' or 'site' level of interpretation for this. This suggests that the authors' use of grey literature is undertaken with a level of confidence regarding the original circumstances and judgements of identification and interpretation, and their ultimate objective is not to validate or reinterpret the evidence. As such their treatment of grey literature data, differs little from that associated with traditional sources. Evans implies that without the reasonable means to compare excavated results (which would involve a consideration of the contexts of discovery and production), it is common practice to focus upon the repetition of patterns, found more frequently than not in the categories and chronologies presented to us (Evans 2012, 300; see also Bradley 2012, 174).

6.6 Concluding Remarks

The concluding section of this chapter aims to draw together the significant observations and findings from the analysis undertaken – comprising a discussion of all three analysed texts in order to consider recurring patterns and variability in the use and prioritisation of grey literature sources. The commentary will address each analytical question, posed to the texts, in turn, seeking points of significance, and opportunities for further discussion.

1. *How are data selected for inclusion, and subsequently used?*
2. *How much priority is given to grey literature?*
3. *Which interpretative intervention level typifies the author'(s)' main access point to the archaeological record?*

Beginning with the question – *how are data selected for inclusion, and subsequently used?* – there are three key remarks to make.

Firstly, it has been confirmed how the authors apply their data selection criteria in distinct ways. Yates espouses a thoroughness of relevant data extraction from grey literature sources, to assure relevance and confidence in its subsequent deployment. Whereas both Bidwell, and Lambrick and Robinson, actuate their data selection through pre-defined criteria – capitalising, more so upon the systematised nature of grey literature archiving, wherein key words and categories facilitate their identification, and subsequent selection of data appropriate to each of their studies.

Secondly, the authors of all three texts consider, and value the constructional nature of data, and in the instances observed, grey literature receives the same treatment as data retrieved from other sources. The term 'constructional' is used here to reflect upon how the cumulative weight of data, is both perceived and utilised by the authors, to emphasise the significance of the understanding being reached. Yates employs the use of distributional figures, whilst Bidwell imposes a statement of 'significance' on the data he selects, prior to demonstrating their cumulative value. Lambrick and Robinson seek to present their view of the 'dynamics of change' in later Prehistory through ensuring the successive accumulation of data remains of central importance.

Thirdly, and finally each author posits a pre-existing model or theory, and subsequently uses data to establish a true / false positioning. Paramount to this method of critical synthesis, is the orchestrated comparability of the source-data. Such a methodology clearly influences the selection criteria for data derived from grey literature, where the maintenance of like-for-like categorisation is perhaps most apparent.

Moving onto the question - how *much priority is given to grey literature?* – the analysis has revealed two emergent themes of practice, within the three texts studied.

Each text demonstrates, overall, relatively low-levels of grey literature prioritisation. Comparing the statistics generated – Bidwell: whole publication (10%), article (16%), cited sentences (6%), Yates: whole publication (30%), chapter (24%/40%), cited sentences (7%/20%), Lambrick & Robinson: whole publication (3%), chapter (12%), cited sentences (4%) – emphasises this low-level prioritisation, particularly in relation to in-text referencing of grey literature. This is an unexpected finding, particularly when considered in light of the original objectives of the chosen projects – which were to demonstrate the contributing value of grey literature to new / better informed narratives, capitalising upon both its perceived volume and accessibility. The only example where a higher prioritisation of grey literature occurs, is when the data acquired is utilised

for subsequent analysis, in the instance of the creation of Yates's distributional maps. There are a number of reasons as to why grey literature prioritisation remains low, within the synthetic projects studied, which are worthy of note here. Poorly executed source selection methodologies, especially of resources that have inherent limitations in the way they are archived and categorised, could affect the acquisition of relevant data (see Southport Group 2011). It has been acknowledged earlier, how Yates employed more thorough selection criteria, which may, in turn have resulted in better source identification. Perhaps it is also remiss to overlook the attitudinal changes required by users / researchers, who seek to integrate grey literature (a possibly 'unfamiliar' resource) into their synthetic frameworks (see Scanlon et. al. 2011, 67).

A further trait common across all three texts analysed, is how the author's forefront the majority of their discussed themes with evidence derived from traditional sources, only on the rare occasion does a grey literature source take priority, or challenge an idea or perspective. This finding is supported by the low numbers of grey literature sources observed as contributing to the author's thematic narratives – Bidwell (typically 5%-13%), Yates (typically 11%-33%), Lambrick & Robinson (typically 11%-19%). This practice is indicative of a synthetic process where the knowledge base is already pre-supposed, and what we, as readers are witnessing is the move from a known, familiar knowledge base, to one which is less-familiar and less-known. In this instance data and knowledge acquired from grey literature is placed within a hierarchical structure of channels of knowledge (see Seymour 2010, 229). It appears that when considering the observed use of grey literature in these synthetic projects that the authors have not quite managed to cast-aside the hegemony, all-too frequently ascribed to more traditional sources (see Harlan 2010, 270).

Turning to focus on the final analytical question - *which interpretative intervention level typifies the author'(s)' main access point to the archaeological record?* – it is here where key commonalities, and distinctions, between the three texts were revealed.

It was commonly observed that none of the three texts drew-upon individual context data, reported upon in grey literature. It was more common for the texts to utilise evidence that had been identified and interpreted at a later intervention level – such as feature, groups of features or phasing descriptions – Lambrick and Robinson, for example drew heavily upon groups of features and phasing data, whereas both Yates and Bidwell seemed less-wedded to relying upon one or two particular intervention levels. Such observed practice implies both a level of confidence placed in the initial identification / interpretation process – and the conditions of 'record creation', as well as a necessity to accept data at face-value, rather than engage in a process of re-interpretation (see Evans and Moore 2014, 235). For both Yates and Bidwell, it was equally

customary for them to utilise the concluding narrative section of a grey literature source, as much as it was to draw-upon the evidence description sections. It could be postulated that the favoured intervention-levels drawn-upon by the authors, gave them access to particular vocabularies and categories, perhaps even the same vocabularies and categories they exploited at the data-selection stage. Reliance upon such anchor points, would ultimately make any hypotheses comparable (see Jenkins 1991, 26). And, the above study has indicated that comparability, through the distillation of evidence, appears to remain the key feature of archaeological synthesis (also see Bradley 2007, xvi).

Chapter 7: Commonalities, Structuring Principles and Opportunities in current Grey Literature Production Guidance

7.1 – Introduction

The final study conducted for this thesis comprises a comparative assessment of current grey literature production guidance, and a discussion highlighting the potential benefits and limitations posed, in light of what has been learned from the characterisation and detailed analysis of the use of grey literature in synthetic projects. Firstly, the assessment aims to highlight any technical and/or instructive language used to help guide and facilitate the production of grey literature. Secondly, leading on from this comparative assessment, will be a discussion focusing on the implications of such guidance, and how they relate directly to the issues and limitations explored previously in the thesis. An appreciation of the role grey literature data has in integrative, synthetic research projects has been achieved in the preceding two chapters, and this improved understanding will in-turn be utilised to make suggestions to inform changes to future guidance practices. Finally, the process will evaluate how the use of grey literature can be fed-back, and used critically to advise upon improvements to practice. It will establish whether the scope of current guidance could benefit from being less-restrictive and more-definitive (or vice versa) in its mandate.

7.2 – A comparative assessment of grey literature production guidance

A comprehensive inventory was made of all production guidance available currently in England. The selection choices take into consideration how grey literature can be an output of a range of archaeological interventions, as outlined and discussed in Chapter 1. These interventions can include excavations, field-evaluations, watching briefs, desk-based assessments, as well as landscape and buildings surveys. Therefore, the documents selected for assessment and comparison included:

- MORPHE: Management of Research Projects in the Historic Environment PPN 3: Archaeological Excavation (Now Historic England, was English Heritage).
- Standard Guidance for Historic Environment Desk-Based Assessment (Chartered Institute for Archaeologists).
- Standard and guidance for archaeological field evaluation (Chartered Institute for Archaeologists).
- Standard Guidance for Archaeological Excavation (Chartered Institute for Archaeologists).
- Understanding the Archaeology of Landscapes: A Guide to Good Recording Practice (Historic England).
- Understanding Historic Buildings: A Guide to Good Recording Practice (Historic England).

Each document was reviewed, and instructions relating to the structure, format, content or general authorship of grey literature / end of project report were extracted. This information is presented in the table below (see *table 14*), in a format which emphasises commonalities and key differences, to allow for comparisons to be made.

Publication Name	Common Instructions Shared between Guidance Publications	Differences / Distinctions in instructions between Guidance Publications
MORPHE: PPN 3: Archaeological Excavation. (English Heritage 2008, 15-23).	• Quality judged on ability to reflect project aims. • Data must be assessed for value and potential, prior to selection for inclusion (scales of potential: crucial, intrinsic, none). • Integrative approach advocated – combining specialist reports with structural analysis. • Proofs to be circulated amongst collaborators and advisers – for comment. • Project Sponsor approval prior to wider circulation of results.	• Process to be followed – evidence, analysis, synthesis. • Aim: to interpret site record, and include explanations to how interpretations have been reached. • Quality judged on ability to meet archaeological and academic standards and priorities. • To be archived with ADS, HER and OASIS.
Standard Guidance for Archaeological Excavation. (Chartered Institute for Archaeologists 2014b, 13-15).	• Must reflect / take template from synopsis of aims in design report. • Important data must not be overlooked. • Integrative approach to be adopted – combining specialist reports with site sequence. • Advice to be sought to ensure / enhance academic quality. • Approval must be sought prior to wider circulation / publicising.	• Sufficient data and references should be provided to permit interpretations to be challenged.
Standard Guidance for Historic Environment Desk-Based Assessment (Chartered Institute for Archaeologists 2017, 9-11).	• Report must include a research statement and specify aims. • Report must include a statement of potential / significance, as a minimum expectation. • Area of interest must be contextualised within wider landscape. • Agreements of wider circulation / publicity in place with commissioning body.	• Template structure, to be followed as a bare minimum requirement. • Clear concise language to be used. • Technical terms to be explained.

Standard and guidance for archaeological field evaluation. (Chartered Institute for Archaeologists 2014a, 12-13).	• The end report should make direct reference to the aims and purposes as set-out in the project design. • The report will be subject to any contractual requirements on confidentiality	• The recording and analysis of separate materials should be undertaken appropriate to the aims and purpose of the project, and an assessment of their potential contribution. • Use of clear, concise language and logical explanation. Any technical terms should be explained. • A copy of the report should be sent to the HER as a minimum requirement of archiving / dissemination. • Expect to consider a structure that includes: Non-technical summary, introductory statements, Aims and objectives, Methodology, Results, Conclusions. • Report must contain sufficient objective data to enable an informed and reasonable
Understanding the Archaeology of Landscapes: A Guide to Good Recording Practice. (Historic England 2017, 28-30).	• Discoveries within the studied landscape should be contextualise spatially and relationally. • Coherent, written descriptions should be presented in order to communicate significance and understanding.	• The report should contain a description of remains, a catalogue of features, and a synthesis of distilled conclusions. • Conciseness much be achieved when communicating thoughts and conclusions. • Methodologies must be stated to allow reader to gauge reliance of results.
Understanding Historic Buildings: A Guide to Good Recording Practice (Historic England 2016, 21-24, 32-34).	• The history and setting of the building should be contextualised. • Specialist reports should be summarised for interpretation. • An assessment of significance and future investigative potential must be provided.	• A copy of the report should be sent to the HER as a minimum requirement of archiving / dissemination. • Process advocated: context, description, analysis and interpretation.

Table 14: Results of a comparative assessment of current grey literature production guidance.

There are a number of considerations to be made, in relation to the commonalities identified and listed in the table above (see *table 14*). There is much focus placed upon collaborative input, especially that which is likely to result in a grey literature report gaining more prominence amongst academic fields (see Chartered Institute for Archaeologists 2014b, 13-15; also Cooper and Green 2016, 227). The guidance documents routinely advocate a more integrated approach, favouring explanations that combine and distil relevant and significant information, rather than presenting everything that has been gleaned from an intervention. There is a caveat to this approach however, even though most guidance documents stipulate the necessity to provide the means (either through transparency in the investigative, or methodological processes employed) for the reader to challenge or validate the information presented, the very act of distillation may make it less-easy to track the decision-making processes (see Strathern 2006, 194). A synthetic approach to presentation and discussion is openly encouraged. This approach relates not only to process of report production, undertaken through the selectivity of the explanations given (i.e. choosing the most relevant / important), but also relates to any reader or subsequent user, who would benefit from the wider, contextualised linkages made within the report (for example see Bradley et. al. 2016). A further commonality amongst the guidance documents are direct connections that are expected to be made between the original investigative aims or research designs, and the results. Although, it is commonplace to confirm, and evidence, in any end of project report, that the work has achieved what it set out to do, the whole process could be at risk of becoming self-fulfilling, with little anticipated independency or ambiguity between the original aims and the results (see Carver 2011, 58). One final commonality identified is the importance the guidance advice places on establishing and communicating the 'significance' and 'potential' of the findings selected for discussion. Chapter 4 of this thesis explored the implications of making such value-judgments, in relation to the National Planning Policy Framework, and raised concerns regarding how these judgments would be generated and validated. A further concern worthy of note, is by placing importance upon this being an essential aspect of a grey literature report, where are the opportunities or mechanisms for such value-judgments to be questioned and/or debated (see Moore, 2006, 3)? Or is it anticipated they are to remain as unquestionable as the data presented?

The guidance documents evidently differ in the ways some chose to suggest a clear format for data presentation, and any offered structure(s) mirror the traditional data reassembly processes as seen within earlier PPG16 guidance (for example see Chartered Institute for Archaeologists 2017, 9-11; English Heritage 2008, 15-23; Historic England 2016, 21-24, 32-34). Whereas for other documents the instructions seem, for the most part, looser – perhaps allowing for the report authors to exercise a sense of creativity (see Carver 2011, 87). Although the imposition of a structure, when authoring a grey literature report has been criticised earlier in this thesis, what a looser framework could invite are real issues about quality assurance, and comparability between sites and/or stages of intervention. There is still an over-arching sense, as was also

the case with PPG16 guidance that the reports should attempt to constitute the nature and conditions of the on-site interventions. Pearson and Shanks define these as a combination of the practical (the intervention process), the logical (supporting the textual inscription and subsequent explanations of the in-ground record) and the political, (in this instance how the guidance interprets the requirements of the NPPF) (2001, 32). A further difference noted, is that although many documents envisage an archival route, for the grey literature into the relevant HER some also openly advocate wider dissemination, albeit of a more selective and targeted content focus, to allow the data to operate in broader fields of discourse (see English Heritage 2008, 15-23).

7.3 – Opportunities to inform future guidance content

So, how does an improved understanding of how grey literature is used, and how its value is perceived (as outlined in Chapters 5&6 of this thesis), challenge or change the implications of the details referenced in the guidance documents? A renewed focus on producing combined, collaborative explanations, evidently undertaken at a high(er) intervention levels, coupled with the necessity to include a wider contextualisation of the site, by making reference to broader research schema, fits with the usage profiled in sections 6.3.5, 6.4.4 and 6.5.4 of this thesis. Whereby it was identified that the project authors indicated a preference for selecting data from the feature-grouping, phasing and contextualisation intervention levels within grey literature. Another important observation to make is how by utilising value / significance judgments, grey literature reports may inadvertently produce a further standard of archival classification / categorisation. This could provide the means for researchers to actively filter-out the least valuable data-sets from the HER archive, by simply using specific search criteria, similar to the methods they employ currently, in order to distinguish between sites from different periods. However, this alternative form of classification may also result in creating further hierarchies of relevance, within source materials selected and used in research – so rather than a hierarchy existing between unpublished (grey literature), and published (articles, textbooks, monographs), a hierarchy would now exist between grey literature sources, with limited scope to challenge the initial judgments of value / significance.

In the concluding section of Chapter 6 (see section 6.6) it was stated how data from grey literature was rarely used to challenge an idea or perspective in the project texts studied. This style of use could potentially be reversed, with the closer involvement of academic advisors to peer-review and essentially enhance the academic quality of the writing (see Chartered Institute for Archaeologists 2014b, 13-15, also Harlan 2010; Roth 2010). As well as the use of quality benchmarks to judge the ability and success of grey literature content in meeting wider archaeological and academic standards and priorities (see English Heritage 2008, 15-23). Furthermore, it is of significant interest that a number of the guidance documents advocate for transparency in how data are explained, and in the methodologies employed (see English Heritage 2008, 15-

23; Historic England 2017, 28-30), as this would imply an expectation of routine re-assessment of the evidence presented therein. The study conducted for this thesis, has characterised how grey literature is typically taken at-face-value, with no expectation, nor appetite expressed for re-interpretation. By employing the technical language and descriptive content advocated under the preservation-by-record ethos and PPG16, the inherent value in the data it communicates is now largely taken-for-granted. At present there is little, to no commitment to re-interpret data from grey literature, but rather the focus, so far has been to draw-upon the cumulative value, by including it in works of synthesis (see Bradley 2007; Evans and Moore 2014, 235; Roth 2010).

7.4 – Concluding Remarks

Grey literature production guidance varies in its specificity, and shares some clear commonalities in the instructions it imparts to the report authors. Many of these commonalities have direct implications upon the ways in which grey literature sources are currently used in wider, synthetic research projects. For example, judgments of value and significance could be perceived as replacing or augmenting the traditional ways of categorising and archiving these resources. Enabling researchers to further filter-out reports deemed of lesser significance or value. Interestingly, there are currently no clear mechanisms to debate or challenge these crucial value judgments. Some guidance documents advocate providing the means for the reader to reinterpret or validate the conclusions made, whilst conversely encouraging report authors to combine and distil evidences to achieve the most valid and concise conclusions, which can serve to obscure some of the decision-making processes employed. Some recommendations made in the guidance documents fit succinctly with the observed patterns of use and source-prioritisation, as identified in Chapter 6 of this thesis. Though it has become clear how a more thorough appreciation of the continued use of grey literature, has the potential to inform future guidance pertaining to its authorship and production. Especially, utilising examples of grey literature produced under the current regimes of NPPF and the guidance discussed here.

Chapter 8: Conclusions and Executive Summary

8.1 - Conclusions

The thesis presented here aimed to explore the two persisting and divergent perspectives on the **grey literature crisis**. These aims have been conceived at a time where the two broad threads of discourse have been sufficiently established to enable an assessment and critique of their continued viability. It has been possible to characterise the two opposing views as:

- One pertaining to abject criticism regarding the mechanisms currently in-play, which result in the construction and acceptance of grey literature as an adequate output of commercial archaeological interventions.
- The other viewpoint maintains faith in the potential of grey literature as a practicable resource, suited for integration into wider research schema. A conviction subsequently demonstrable through illustrating examples of grey literature use.

The assessment and critique covered by the thesis was undertaken with both in-depth complexity and rigour. This was a necessary process, which made it possible to ascertain and evaluate the intricacies in the principles and perceptions shaping these two opposing viewpoints.

In Chapters 2, 3 and 4 of the thesis, detail was presented regarding the ontological and methodological conditions, which currently inform the production of grey literature. It was identified in chapter 2, how there was a marked absence in any unifying archaeological ontology, and this was achieved by surveying a range of familiar introductory, archaeological texts. It was revealed how archaeologists typically favour using 'anticipatory' language to describe the main objective of the discipline. The language usage, when grouped to emphasise commonalities, indicated how both methodological and epistemological concerns had a more significant influencing role on how the archaeological objective was comprehended and communicated.

In Chapter 3 the concept of past as record was critically examined, and appraised within a historiographical review of archaeological field methodology. This review selected key, influential practitioners and detailed the refinements they made to field-practice, which were specifically aimed at retrieving an objective translation of a physical in-ground record, to a commensurate, textual one. The consequences of disassembling the empirical, component parts of a site, taken to constitute a material past were identified. The discussion also examined how practice often overlooks the implications of the transmutable process of physical material to descriptive text.

The archaeological field-experience was contextualised within the commercial sector, in Chapter 4 with the implicit aim of establishing how risk-management, and the planning process, have both been directly attributed to the nature and scope of the grey literature output. The conditions and organising principles of commercial interventions were then studied, from the introduction of PPG16-guidance, through to the current National Planning Policy Framework. Optimised field-methodology and the management of data (linked to a legacy of the preservation-by-record ethos), were ascribed to the current process of prioritising archive production over interpretation, and these practices could be identified as having a causal link with the concept of a grey literature crisis. The implications of introducing value and significance judgments to the mitigative process, were explored, directly with reference to querying the evidential basis for such judgements. Writing less than a decade after the introduction of the National Planning Policy Framework, it became apparent that a more comprehensive assessment of these implications was required.

In Chapters 5 and 6, a combination of meta-level characterisation, and comprehensive analysis sought to explore how the contributing 'value' of the grey literature resource is both perceived and realised. These studies were made in the context of both emerging and established projects that specifically set-out with the aim of synthesising grey literature content alongside more traditional sources of evidence. In Chapter 5, the characterisation undertaken on nine synthetic research projects, identified they represented a range of publication genres, however, they all had sufficient methodological similarities to enable them to also be classified as works of synthesis. Furthermore, the concept of synthesis, and synthetic research within archaeology was explored – and it was concluded that there existed little, to no appreciation within the discipline, as to the process crafting an optimised synthetic approach, which utilised higher-order skill-sets. Differing perceptions and expressions of value were assessed, in relation to what the authors said about grey literature, and its contributing status. Value statements were frequently found to be articulated in terms of grey literature being up-to-date, unfamiliar and/or new, vast in quantity and/or in an accessible format. The potential use of grey literature was also evaluated against two clearly defined methods - data organisation (whereby the process was established by the project's overarching structure), and data engagement (wherein the current, poorly conceived process of synthesis restricted approaches to the dualistic compare / contrast, similarity / variability). Chapter 5 was concluded with an assessment of the number of grey literature sources contained within the project bibliographies – and it identified much variability, with percentages ranging from 0% - 30%.

The basic quantification exercise undertaken in Chapter 5, was augmented by the more detailed analysis carried out in Chapter 6. Exactly how grey literature was selected and prioritised for use, was both quantified and qualified through a series of analytical processes – including collating statistics regarding the number of

sentences referencing grey literature, and evidencing how these references contributed to the discourse. Varying techniques were utilised to initially assess, and select data for use within the projects. With one methodological approach capitalising on the simplistic, key word categorisation, traditionally employed in the archival process, to help select data relevant to the study. It was established that the in-text referencing of grey literature indicated the use of similarly low numbers, as their representation in the whole project bibliography (i.e. 4% - 20%). By studying, examples of the in-text referencing of grey literature in more detail, clear commonalities were established. These recognised how the project authors fore-fronted the majority of their discussions with evidence derived from traditional sources, and only on rare occasion did grey literature take priority, or challenge a pre-existing idea or perspective. More typically grey literature examples were used to support, primary examples taken from other sources. A final question was posited, in order to ascertain which data-intervention level was most readily accessed by the project authors. By acknowledging the stages of data-reassembly undertaken in the construction of the grey literature report, as outlined previously in Chapter 3: from single context to contextualised narrative, and also again defined in Chapter 6, the analysis was able to identify which data-intervention levels were most readily drawn-upon. The findings indicated individual context-level data was never used, whereas groups of features and phasing data, as well as the concluding narrative and wider contextualisation were all routinely drawn-up. It was postulated how these favoured intervention-levels provided familiar and relevant vocabularies and categories, to ensure data / evidence comparability.

By achieving a more in-depth appreciation as to how researchers view and realise the potential held in grey literature, Chapter 7 concluded the thesis study, by seeking opportunities to compare the findings of this research against current archaeological reporting guidance. Firstly, current guidance documents were reviewed, and similarities and differences between their instructive content were established. The implications of the changes seen in guidance between PPG16 / MAP2 (which informed the majority of the grey literature sources studied in this thesis), and now via the National Planning Policy Framework, were highlighted. By having characterised and analysed projects using grey literature, it was possible to see how the instructions set-out in the documents could prove to be of further significance, as well as potential hindrance to grey literature's continued deployment in similar works of synthesis.

8.2 – Executive Summary

Evaluating a Future for Grey Literature: Ph.D. Thesis

Questioning the validity of grey literature, as a valuable archaeological resource and source of useable data, needs to move beyond the sustained and somewhat partisan viewpoints that either: denounce grey literature as an inadequate consequence of the unsatisfactory conditions that have produced it; or that

perceive its value as being inherent in the considerable data (and therefore, assumedly the extensive knowledge) it represents. The research reviewed in this executive summary decidedly, positioned both perspectives within more informed and up-to-date explanations, in order to assess their continued viability. The objective being to establish robust and replicable methodologies to analyse the opportunities and limitations (both perceived and realised) that arise from recent examples of the use of grey literature resources in archaeological syntheses. The overall aim being to identify the ways in which a comprehensive understanding of such use, can inform the procedural and epistemological structures that continue to guide both grey literature's content, and its production.

Without question, the production and content of grey literature are both wedded to systems which are closely guided by policy and procedure, and are crafted to operate within the particular conditions of archaeological investigations, typically, though not always, brought about by development. Considerations regarding what happens to those data, contained therein are by-and-large abstracted from the original 'value' judgements associated with its creation (i.e. its suitability for investigation, makes its worthy of retrieval and archiving, and thus positions it as having future value in research contexts). A position that espouses a clear sense of representativeness, which has seemingly changed little since the first rallying calls to 'preserve by record' in the 1970s. Issues continue to be voiced regarding the archival imperative which drives grey literature production (and which has been amplified more recently by the necessitous value of archive production, emphasised by the National Planning Policy Framework (NPPF)). Some scholars have even suggested this position amounts to a 'crisis', and that little is being done to mitigate against this perceived threat. The opposing perspective to this grey literature 'crisis' advocates for the potential inherent within grey literature to be utilised to facilitate and enhance integrative study and research, and proponents have even supplied examples of where data in grey literature have been effectively put-to-use.

To date there have been limited attempts to explore and test the validity of these two contrasting positions, nor fully reconcile any of the issues and/or opportunities they raise. The research discussed here achieved a clearer and fuller appreciation of how grey literature resources are being used, how the data they contain are both perceived, and valued, and what potential limitations they present to those wishing to engage with their content. The findings have the potential to gain credence across the archaeological discipline. What the research achieves is an evaluation of the current mechanisms employed in integrating grey literature data into synthetic narratives. It also contextualises the transmutable qualities of the investigation and authorship processes, and the implications these place on any proposed re-engagement with data contained within grey literature (an issue of particular significance and implication, which remains unaddressed in current guidance and practice). The research undertaken serves as a timely reminder that the sector has a

duty, not only to operate within mechanisms brought about by the conditions of development, but also (and perhaps a less introspective consideration) it has a responsibility to contribute and communicate useable data, as well as valuable historical knowledge to the wider disciplinary community. Given how, in recent decades, grey literature has become the fastest growing archaeological resource available to researchers, it is important to stress how a robust ontological focus should take primacy over any epistemological characteristics or methodological obligations.

In recognising the need to move the discussion of questioning the validity of the content of grey literature beyond the concept of a 'crisis', in which data is often deemed unusable, the research aimed first, to challenge, what is seen by many to be the central tenet of archaeology – the concept of *past as record*. A critical assessment of the evolution of field practice and enquiry, emphasised the influencing factors which had led practitioners to position the formation of a transcribed record as the necessary objective of archaeological investigations. It was asserted how idea of a *past as record* has become heuristic trap of sorts, whereby descriptions of the material components of an archaeological site, and the mechanisms that have produced those components now represent how the past is understood and communicated. In the context of how, in the commercial sector, we review and respond to the challenges managing of the heritage resource, these indeed are the principal means by which our analytical capabilities are framed, and results presented. Furthermore, these are the exact traits which make the results of developer-funded investigations suitable for an archival destination.

Conversely there are those who have aimed to make use of grey literature, as a means of refuting the idea of a 'crisis' (of which nine projects were selected for study). Their level of engagement with grey literature data, as well as how the value of such data was perceived, were initially characterised, then a discrete sample (of three projects) was analysed, as a means of revealing: the opportunities and challenges encountered, as well as highlighting any clear commonalities or divergences in conceptualisation and approach. The research identified how a variable range of publication types are now openly utilising grey literature resources. Despite the noted variance, the publications approach the integration of grey literature data, alongside more traditional data sources, through a medium recognisable as synthesis. And although the overall commitment expressed was to enhance the domains within which grey literature data-sets gain academic credibility – this was emphasised through varying influencing factors: a sense of precedence, to give new sources of evidence prominence; legacy considerations, to allow for a completeness of representation; or for validation, as a means of compensating for the perceived shortcomings of the research components of grey literature data sets. In addition, the characterisation part of the research allowed for a rudimentary, initial quantification of the grey literature sources referenced in the project bibliographies, which were calculated to range from

anywhere up-to 30%. However, it was also evident how further access to commercially-derived data-sets came from consistent and equally quantifiable uses of other publication formats, such as monographs and articles (which in addition ranged from anywhere up-to 30% of the total bibliographic references).

One of the significant outputs of the research was the formulation of a *taxonomy of synthesis* which provided the means of categorising key information from the projects studied. This included the principles that had shaped the project aims, the perception of grey literature data expressed by the authors, how the data were intended to be organised, and subsequently engaged with, and the transformative capacity of the approach(es) taken. Frequently espoused, across all nine of the projects studied, was the assertion that data capacity directly correlated to their format and quantity: and how this capacity increased exponentially when data were considered in accumulation (i.e. synthesis). This assertion underpinned the positive perceptions of grey literature's use-value, which were frequently expressed in terms of qualifying language, largely without specificity (e.g. rich, fresh, unfamiliar, unique). For the research purposes, data organisation and engagement were considered as distinctly separate functions. The organisational objectives mirrored the ways in which the projects were structured, and interestingly posed no significant challenge to the way grey literature is typically formatted. Aims for data engagement, conversely sat squarely within the expressed perceptions of the value of grey literature data – where ordering, linkages, and combinations encompassed the extent of the proposed mechanisms intended to be employed. A noteworthy acknowledgement to highlight, was the paucity of analysis, to date, of archaeological approaches to synthesis, and when considered through the findings of this research, archaeological synthesis frequently fails to achieve the higher order functionality of cognition, that is typically associated with the synthetic process.

When it came to assessing how the use-value of data contained in grey literature was subsequently realised, the research focused more closely on three individual projects (Bronze Age Field Systems in Southern England (Yates, 2007); Thames through Time (Lambrick & Robinson, 2009); Towns of the Midlands and the North (Bidwell, 2015)). Using an innovative framework of study, designed specifically for the research, the analysis identified how authors scarcely gave grey literature data primacy, and typically used them to confront traditional evidences or theories. The in-text (direct) referencing of grey literature sources was quantified as ranging from between 2% and 20%. Broad trajectories of evidences were presented as the project narratives, and these were routinely mapped through the accrual of common evidences, as opposed to highlighting the value in any evidential specificity (subverting the sense of uniqueness espoused previously). The characteristics of categories and data categorisation, typified by grey literature and archaeological archival process – such as site-type and/or period - offered expediency when selecting data suitable for inclusion. The research also revealed how the projects prioritised their use of data that had been created at particular

intervention levels, which likewise were attributable to easily comparable categories – such as features, groups of features and/or phased data. These were to provide the discursive parameters of the projects, wherein through their use, the authors, whether consciously or not, were imposing a retrospective validation of the original investigative acts that created the data. Conversely, and equally as significant, there was little to no appetite expressed to assess or re-engage with primary context data.

An important point to make is that the projects studied actively utilised grey literature data generated under English PPG16- and MAP2-guided regimes. A review of more recent guidance, associated with the change to the NPPF (in England, in 2012) was undertaken, informed by the findings of the research, to ascertain whether the practices and observances made, also had the potential to be replicated in future projects aiming to synthesise data generated in the last decade. Significantly, current guidance echoes the sentiments expressed by many of the project authors, in that data have a constructional value, optimised by the act of accumulation. An unacknowledged consequence of this is how the act itself may leave evidence(s) less susceptible to future, counter-perspectives. The guidance also implies that the distillation of evidence is favourable, a position that amplifies the transmutable qualities of archaeological investigation and subsequent data / narrative authorship, and which places unquestioning validation in processes of enquiry. The decision-making stages, in such an instance, may become obscured, making them difficult to interrogate, replicate, or refute. The review also highlighted some inconsistencies in the guidance documents. For example, suggesting discourse should framed around particular intervention-levels (a task also favoured by the project authors), would undoubtedly give readers / researchers access to a range of vocabularies and categories (although they may, potentially be limited). Going further by to advocating a looser data-assembly framework for grey literature production, may affect one of the most prized qualities of said reports, its comparability. Furthermore, and equally concerning is the significance the NPPF places on value, and value judgements, as it can be envisaged how these may create new hierarchies of relevance, which again serve to move the overall objective away from narrative production and communication. Value-judgements may even risk becoming new evidential categories in themselves.

The contribution of the research summarised here, can be defined as

- Identifying, and establishing the (legacy) methodological and epistemological causes of the grey literature ‘crisis’. Whereby justifying the necessity for an underpinning archaeological ontology (the study recognised how, presently there is no ontological consensus within the discipline).

- Establishing a taxonomic methodology to extract quantifiable and qualifiable information regarding the perceived and realised use-value of grey literature in synthetic research projects. A methodology which generates comparable evidences, and is easily replicable.
- Qualifying the implications of a *past-as-record* conceptualisation, on data-integration and synthetic applications of grey literature resources. As well as highlighting the cognitive limitations of archaeological synthesis as a whole.
- Producing an informed review of current guidance documentation, in light of the analysis findings. As well as determining where potential intellectual and/or practical constraints can be avoided or at the very least, circumvented.

In can also be demonstrated how there is significant potential to extend the research to encompass numerous additional studies, such as:

- A replicable assessment of projects engaging with grey literature data produced under regimes operating in other contexts in the UK.
- A study focused on the processes undertaken by specialist material researchers, which aim to draw heavily on very specific elements of grey literature reports.
- An assessment of projects (synthetic or otherwise) which utilise grey literature produced under more recent NPPF regimes. (Focusing specifically on the implications on the judgements made in apportioning value and/or significance to in-ground assets, and the efforts undertaken to emphasise the transformative effect of improved heritage knowledge, in order to meet the interests of a wider range of stakeholder groups.)
- An ethnographic / observational study, to map and test the data selection and editorial decisions made during the grey literature production process.
- A critical, in-depth review of the mechanisms employed in archaeological synthesis, which establishes exactly how the synthetic process draws-upon a hierarchy of data-engagement techniques, and explores the values placed upon contributing sources of evidence.

Nicola Thorpe (April 2020)

Chapter 9: Opportunities for Further Research

9.1 – Opportunities for Further Research

Inevitably within a focused and original study, as a PhD thesis represents, there will be instances where additional points of interest, or areas worthy of further research are identified. And this has proven to be the case here. At this closing point to the research undertaken, I have chosen to list the topics that I believe warrant further investigation and research.

- Although the study here chose to isolate England, and focus upon English policy and practice, it is clear that the developed methodology can, and should be applied to the wider UK context.
- Having allowed sufficient time for the guidance outlined in the National Planning Policy Framework, to be embedded in norms of practice, in the commercial sector, it would be judicious to explore the nature of our responses to this policy change. Emphasising the requirements discussed briefly in this thesis – i.e. judgements made in apportioning value and/or significance to in-ground assets, and exploiting the transformative effect of improved heritage knowledge, in order to meet the interests of a range of stakeholder groups.
- Touched upon briefly in the introduction to this thesis, was the alternative uses for grey literature, as sources of data for specialist material study. A similar study is possible, which focuses on the potential and limitations of material reports (encountered within grey literature), on specialist material research.
- It is worthy of note how there have been a number of attempts to re-establish a historically-contingent means of conceptualising the relationship between the past and material evidence, through seeking methodological solutions in field-practice (for example see Bender, Hamilton and Tilley, 2007; Framework Archaeology 2006; 2010; Hodder 2000). It would prove valuable to assess the nature of these projects' ambitions, and compare these against the portrayal of field practice (as shaped by the concept of past as record) presented in this thesis. Such an assessment should attempt to ascertain whether these examples have succeeded in developing methodologies, fit to challenge more traditionally embedded practices.
- An innovative area of potential research could be to understand, through an ethnographic / observational study, the data selection and editorial decisions made during the grey literature production process. How data is reviewed, and potentially included or discounted could be modelled similar to a decision-making flowchart – whereby implications and alternatives could be postulated.
- A critical, in-depth review of the mechanisms employed in archaeological synthesis is considered a long over-due piece of research. Establishing exactly how the synthetic process draws-upon a hierarchy of data-engagement techniques will help characterise the current nature of archaeological synthesis, and explore the values placed upon contributing sources of evidence.

It is also worthy of note here, how there have been two recent theses, an MPhil, and DPhil, which also have sought to address topics with some overlap with the work here, particularly in relation to the methodological conditions which result in the generation of a grey literature output (see Davies 2015; Donnelly 2016). This is encouraging to note, as I anticipate further investigative study can only help continue to improve the viability, and opportunity for these grey literature to have a more significant bearing on present and future research.

References

Adams, M. 2000. The Opticians Trick: an approach to recording excavation using an Iconic Formation Process Recognition System. In S. Roskams (ed.) *Interpreting Stratigraphy: site evaluation, recording procedures and stratigraphic analysis. BAR International Series 910*. Oxford, Archaeopress. pp 91 – 101.

Aitchison, K. 2010. Grey Literature, Academic Engagement and Preservation by Understanding. *Archaeologies* 6(2): 289 – 300.

Andrews, G., Barrett, J. C. and Lewis, J. S. C. 2000. Interpretation not record: the practice of archaeology. *Antiquity* 74: 525-530.

Bahn, P. G. (ed.). 1996. *The Cambridge Illustrated History of Archaeology.* Cambridge, Cambridge University Press.

Bahn, P. G. 2012. *Archaeology: a very short introduction*. Oxford, Oxford University Press.

Baker, D. 1993. Local Authority Opportunities. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 100 – 114.

Barker, P. 1977. *Techniques of Archaeological Excavation*. London, B. T. Batsford.

Barrett, J. C. 1988. Fields of Discourse: reconstructing a social archaeology. *Critique of Anthropology* 7 (3): 5 – 16.

Barrett, J. C. 1990. Silencing Archaeology: a reply to Lewis Binford. In F. Baker and J. Thomas (eds.). *Writing the past in the present*. Lampeter, St. David's University College. Pgs. 42 - 48.

Barrett, J. C. 1995. *Some Challenges in Contemporary Archaeology.* Oxford, Oxbow Books.

Barrett, J. C. 2006. Archaeology as the Investigation of the Contexts of Humanity. In D. Papaconstantinou (ed.). *Deconstructing Context: a critical approach to archaeological practice*. Oxford, Oxbow Books. Pgs. 194 – 211.

Barrett, J. C. and Fewster, K. 2000. Intimacy and Structural Transformation: Giddens and Archaeology. In C. Holtorf and H. Karlsson (eds.). *Philosophy and Archaeological Practice: perspectives for the 21st century*. Göteborg, Bricoleur Press. Pgs. 25 – 38.

Barrett, M., Hardman, C. and Poppy, S. 2008. New Challenges of Past. *British Archaeology* 103: 38-39.

Bender, B. Hamilton and Tilley, C. 2007. *Stone Worlds: narrative and reflexivity in Landscape Archaeology.* California, Left Coast Press Inc.

Biddle, M. 1984. *The Study of Winchester: archaeology and history in a British town*. London, The British Academy.

Biddle, M. & Kjolbye-Biddle, B. 1969. Metres, Areas and Robbing. *World Archaeology* 1 (2): 208 – 219.

Binford, L. R. 1964. A consideration of archaeological research design. *American Antiquity* 29 (4): 425 – 441.

Binford, L. R. 2002. *In Pursuit of the Past: decoding the archaeological record*. London, University of California Press.

Bintliff, J. 1988a. A Review of Contemporary Perspectives on the 'Meaning' of the Past. In J. Bintliff (ed.). *Extracting Meaning for the Past.* Oxford, Oxbow Books. Pgs. 3 -36.

Bintliff, J. (ed.). 1988b. *Extracting Meaning from the Past*. Oxford, Oxbow Books.

Bintliff, J. (ed.) 2004. *A Companion to Archaeology*. Oxford, Blackwell Publishing Ltd.

Bintliff, J. 2011. The Death of Archaeological Theory? In J. Bintliff and M. Pearce (eds.). *The Death of Archaeological Theory?* Oxford, Oxbow Books. Pgs. 7 – 22.

Bintliff, J. and Pearce, M. 2011. Introduction. In J. Bintliff and M. Pearce (eds.). *The Death of Archaeological Theory?* Oxford, Oxbow Books. Pgs. 1 – 6.

Bowden, M. 1991. *Pitt Rivers: the life and archaeological work of Lieutenant-General Augustus Henry Lane Fox Pitt Rivers, DCL, FRS, FSA*. Cambridge, Cambridge University Press.

Bradley, R. 1973. Two notebooks of General Pitt Rivers. *Antiquity* 47: 47 – 50.

Bradley, R. 1991. The development of fieldwork in the study area. In J. C. Barrett, R. Bradley and M. Green (eds.). *Landscape, Monuments and Society: the prehistory of Cranbourne Chase*. Cambridge, Cambridge University Press. pp 10 – 15.

Bradley, R. 2006. Bridging the two cultures – commercial archaeology and the study of Prehistoric Britain. *The Antiquaries Journal* 86: 1-13.

Bradley, R. 2007. *The Prehistory of Britain and Ireland*. Cambridge, Cambridge University Press.

Bradley, R. 2012. Postscript: recorded time. In L. Webley, M. Vander Linden, C. Haselgrove and R. Bradley (eds.). *Development-led Archaeology in Northwest Europe*. Oxford, Oxbow Books. Pgs. 173 – 175.

Bradley, R. 2015. Repeating the Unrepeatable Experiment. In R. Chapman and A. Wylie (eds.) *Material Evidence: Learning from Archaeological Practice*. Oxon, Routledge. Pgs. 23 – 41.

Bradley, R., Haselgrove, C., Vander Linden, M. and Webley, L. 2016. *The Later Prehistory of N. W. Europe*. Oxford, Oxford University Press.

Breeze, D. J. 1993. Ancient Monuments Legislation. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 44 – 55.

Bryant, S. and Thomas, R. M. 2015. Planning, Commercial Archaeology and the Study of Roman Towns in England. In M. Fulford and N. Holbrook. *The Towns of Roman Britain. The Contribution of Commercial Archaeology since 1990. Britannia Monograph 27*. The Society for the Promotion of Roman Studies, London. Pgs. 7 – 19.

Carman, J. 1995. Interpretation, writing and presenting the past. In I. Hodder, M. Shanks, A. Alexandri, V. Buchli, J. Carman, J. Last and G. Lucas (eds.). *Interpreting Archaeology: finding meaning in the past.* London, Routledge. pp 95 – 99.

Carver, M. 1990. Digging for Data: archaeological approaches to data definition, acquisition and analysis. In R. Francovich and D. Manacorda (eds.). *Lo Scavo archaeologico: della diagnosi all'edizione.* Florence: Ed. All'Insegna del Giglio, pp 45 – 120.

Carver, M. 2011. *Making Archaeology Happen: design versus dogma*. California, Left Coast Press Inc.

Chadha, A. 2005. *Asymmetrical Time: stratigraphy in archaeological practice*. Paper presented at TAG 2005. http://humanitieslab.stanford.edu/23/819 accessed 16/05/11.

Chadwick, A. 1997. Archaeology at the Edge of Chaos: further towards reflexive excavation methodologies. *Assemblage* 3. Web URL: http://www.assemblage.group.shef.ac.uk/3/3chad.htm [Accessed 23/03/10].

Chadwick, A. 1999. Digging Ditches, but Missing Riches? Ways into the Iron Age and Romano-British Landscapes of the North Midlands. In B. Bevan (ed.). *Northern Exposure: interpretative devolution and the Iron Ages in Britain.* Leicester Archaeology Monographs 4. Leicester, University of Leicester: pp 149 – 171.

Chadwick, A. 2000. Taking English Archaeology into the next millennium – a personal review of the state of the art. *Assemblage* 5. Web URL: https://archaeologydataservice.ac.uk/archives/view/assemblage/html/5/chad.html [Accessed 10/05/10].

Chadwick, A. 2003. Post-processualism, professionalization and archaeological methodologies. Towards reflective and radical practice. *Archaeological Dialogues* 10: 97 – 117.

Chapman, R. and Wylie, A. (eds.). 2015. *Material Evidence: learning from archaeological practice*. Oxon, Routledge.

Chartered Institute for Archaeologists 2014a. *Standard and guidance for archaeological field evaluation*. Reading, Chartered Institute for Archaeologists. Web URL: https://www.archaeologists.net/sites/default/files/CIfAS&GFieldevaluation_1.pdf [Accessed 15/09/19].

Chartered Institute for Archaeologists. 2014b. *Standard Guidance for Archaeological Excavation*. Reading, Chartered Institute for Archaeologists. Web URL: https://www.archaeologists.net/sites/default/files/CIfAS&GExcavation_1.pdf [Accessed 15/08/19]

Chartered Institute for Archaeologists. 2017. Standard Guidance for Historic Environment Desk-Based Assessment. Reading, Chartered Institute for Archaeologists. Web URL: https://www.archaeologists.net/sites/default/files/CIfAS&GDBA_2.pdf [Accessed 15/08/19].

Childe, V. G. 1942. *What Happened in History?* Harmondsworth, Penguin Books.

Chippendale, C. 1993. Ambition, deference, discrepancy, consumption: the intellectual background to a post-processual archaeology. In N. Yoffee and A. Sherratt (eds.). *Archaeological Theory: who sets the agenda?* Cambridge, Cambridge University Press. Pgs. 27 – 36.

Christie, N. and Creighton, O. (with Edgeworth, M. and Hamerow H.) 2013. *Transforming Townscapes. From Burh to Borough: The Archaeology of Wallingford AD800–1400*. London, Society for Medieval Archaeology Monograph 35.

Clark, P. 2000. Post-excavation analysis: moving from the context to the phase. In S. Roskams (ed.). *Interpreting Stratigraphy: site evaluation, recording procedures and stratigraphic analysis.* BAR International Series 910. Oxford, Archaeopress. pp 157 – 159.

Collcutt, S. 1993. The Archaeologist as Consultant. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 158 – 168.

Collis, J. 2001. *Digging up the Past: an introduction to archaeological excavation*. Gloucestershire, Sutton Publishing Limited.

Cooper, A. and Green, C. 2016. Embracing the Complexities of 'Big Data' in Archaeology: the case of the English Landscape and Identities Project. *Journal of Archaeology Method and Theory* 23: 271 – 304.

Coudart, A. 2006. Is archaeology a science, and art or a collection of individual experiments …? *Archaeological Dialogues* 13(2): 132 – 138.

Council for British Archaeology. 2001. *From the ground up: the publication of archaeological projects a user needs survey*. Web URL: http://www.britarch.ac.uk/publications/puns [Accessed 20/09/11].

Connah, G. 2010. *Writing about Archaeology*. Cambridge, Cambridge University Press.

Courbin, P. 1988. *What is Archaeology? An essay on the nature of archaeological research.* (Translated by Paul Bahn). London, The University of Chicago Press Ltd.

Creighton O, Christie N, Hamerow H and Edgeworth M. 2009. New directions in tracing the origins and development of Wallingford'. In Keats-Rohan K and Roffe D. (eds.). *The origins of the Borough of Wallingford: archaeological and historical perspectives*. BAR British Series 494. Oxford, Archaeopress, 68-76.

Cumberpatch, C. G. 2001. Power of Place: critique and response. *Assemblage* 6. Web URL: http://www.assemblage.group.shef.ac.uk/issue6/Cumberpatch_Power_web.html. [Accessed 17/04/13]

Cumberpatch, C. G. and Thorpe, R. 2002. *The Archaeology of Chesterfield: a report on the results of a pilot study*. Unpublished Assessment Report. English Heritage Project No. 3184, London.

Daniel, G. 1967. *The Origins and Growth of Archaeology*. England, Penguin Books Ltd.

Daniel, G. 1975. *150 Years of Archaeology*. London, Duckworth.

Darvill, T. 1993. Working Practices. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 169 – 183.

Darvill, T. and Russell, B. 2002. *Archaeology after PPG16: archaeological investigations in England 1990 – 1999.* Bournemouth University School of Conservation Sciences Research Report 10. Bournemouth & London, Bournemouth University in association with English Heritage. Web URL: http://csweb.bournemouth.ac.uk/aip/ppg16/index.htm [Accessed 14/07/10].

Darvill, T., Barrass, K., Constant, V., Milner, E. and Russell, B. 2019. *Archaeology in the PPG16 era: investigations in England 1990-2010*. Oxford, Oxbow Books.

Davies, S. W. D. 2015. *Archaeological Post-Excavation Practice in Contracting Archaeology in England and Wales.* MPhil thesis, University of York. Web URL: http://etheses.whiterose.ac.uk/16451/ [Accessed 06/12/18].

Department for Communities and Local Government. 2010. *Planning Policy Statement 5: Planning for the Historic Environment*. Web URL: http://webarchive.nationalarchives.gov.uk/20120919132719/www.communities.gov.uk/documents/planningandbuilding/pdf/1514132.pdf. [Accessed 02/07/13].

Department for Communities and Local Government. 2012. *National Planning Policy Framework*. Web URL:https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf [Accessed 02/07/13].

Donnelly, V. 2016. *A Study in Grey: Grey Literature and Archaeological Investigation in England 1990 to 2010*. Unpublished DPhil thesis, Trinity College. Web URL: https://ora.ox.ac.uk/objects/uuid:9dc84f2d-af55-4d77-ae18-12fe2eefde1b [Accessed 06/12/18].

Edgeworth, M. 2003. *Acts of Discovery: an ethnography of archaeological practice*. BAR International Series 1131. Oxford, Archaeopress.

Edgeworth, M. 2006. Multiple Origins, Development and Potential of Ethnographies of Archaeology. In M. Edgeworth (eds.). *Ethnographies of Archaeological Practice. Cultural encounters. Material Transformations*. Oxford, Altamira Press. Pgs. 1 – 19.

English Heritage. 1989. *Management of Archaeological Projects*. London, Historic Buildings and Monuments Commission for England.

English Heritage (Andrews, G.) 1991. *Management of Archaeological Projects (2nd Edition)*. London, Historic Buildings and Monuments Commission for England.

English Heritage. 2008 (rev. 2015). Management of Research Projects in the Historic Environment. PPN 3: Archaeological Excavation (1st version). London: English Heritage (now Historic England). Web URL: https://altogetherarchaeology.org/PDF-links/MoRPHE%20Project%20Planning%20Note%203.pdf [Accessed 03/09/19].

English Heritage. 2012a). *Comparison of PPS5 Policies with Historic Environment-related Policies in the NPPF (Part 1).* Web URL: http://www.english-heritage.org.uk/content/imported-docs/a-e/comparison-pps5-nppf-pt1.pdf. [Accessed 17/04/13]

English Heritage. 2012b). *English Heritage Commentary on the National Planning Policy Framework*. Web URL: http://www.english-heritage.org.uk/content/imported-docs/a-e/eh-commentary-nppf.pdf. [Accessed 17/04/13]

Evans, C. 2012. Archaeology and the Repeatable Experiment: a comparative agenda. In A. M. Jones, J. Pollard, M. J. Allen and J. Gardiner (eds.). *Image, Memory and Monumentality: archaeological engagements with the material world*. Prehistoric Society Research Paper No. 5. Oxford, Oxbow Books. Pgs. 295 – 306.

Everill, P. 2009. *The Invisible Diggers: a study of British commercial archaeology. Heritage Research Series 1.* Oxford, Oxbow Books.

Fairclough, G. 2013. Recalibrating through Landscape. *Landscapes* 14(1): 7-12.

Fitzpatrick, A. 2012. Development-led Archaeology in the United Kingdom: a view from $_{AD}$2010. In L., Webley, M. Vander Linden, C. Haselgrove and R. Bradley (eds.). *Development-Led Archaeology in Northwest Europe.* Oxford, Oxbow Books. Pgs. 139 – 156.

Forster, A. 2012. NPPF: the future is in your hands. *The Archaeologist* 84: pp 4 – 6.

Fowler, C. 2000. The Individual, the Subject and the Archaeological Interpretation: Reading Luce Irigaray and Judith Butler. In C. Holtorf and H. Karlsson (eds.). *Philosophy and Archaeological Practice: perspectives for the 21st century.* Göteborg, Bricoleur Press. Pgs. 107 – 133.

Fowler, P. 1993. Archaeology in a Matrix. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 1 – 10.

Framework Archaeology 2006 *Landscape Evolution in the Middle Thames Valley, Heathrow Terminal 5 Excavations Vol. 1, Perry Oaks, Framework Archaeology Monograph 1*, Oxford and Salisbury, Oxbow Books.

Framework Archaeology 2010 *Landscape Evolution in the Middle Thames Valley, Heathrow Terminal 5 Excavations Vol. 2, Framework Archaeology Monograph 3*, Oxford and Salisbury, Oxbow Books.

Frankel, D. 1993. The Excavator: creator or destroyer? *Antiquity* 67. Pp 875 – 877.

Fulford, M. 2015. Retrospect and Prospect: Advancement of Knowledge, Methodologies and Publication. In M. Fulford and N. Holbrook. *The Towns of Roman Britain. The Contribution of Commercial Archaeology since 1990. Britannia Monograph 27*. The Society for the Promotion of Roman Studies, London. Pgs. 194 – 211.

Fulford, M. and Holbrook, N. 2011. Assessing the Contribution of Commercial Archaeology to the Study of the Roman Period in England, 1990 – 2004. *The Antiquaries Journal* 91: 323 – 345.

Fulford, M. and Holbrook, N. 2015. *The Towns of Roman Britain. The Contribution of Commercial Archaeology since 1990. Britannia Monograph 27*. The Society for the Promotion of Roman Studies, London.

Fulford, M., Holbrook, N., Morton, R. and Hardman, C. 2012. *Realising the Research Potential of Developer-Funded Roman Archaeology in England: Project design synopsis for HERs.* Gloucestershire, Cotswold Archaeology. Web URL: http://cotswoldarchaeology.co.uk/wp-content/uploads/2012/11/3649-pd-synopsis-for-HERs-01.doc-1.pdf [Accessed 05/06/05]

Gamble, C. 2007. *Archaeology: the basics.* Oxon, Routledge.

Garrow, D. 2012. Odd Deposits and Average Practice: a critical history of the concept of structured deposition. *Archaeological Dialogues* 19 (2): pp 85 – 115.

Gero, J. 1995. Railroading epistemology: palaeoindians and women. In I. Hodder, M. Shanks, A. Alexandri, V. Buchli, J. Carman, J. Last and G. Lucas (eds.). *Interpreting Archaeology: finding meaning in the past.* London, Routledge. pp 175 – 178.

Gosden, C., Cooper, A., Creswell, M., Green, C., Ten Harkel, L., Kamash, Z., Morley, L., Pybus, J. and Xiong, X. 2012. The English Landscape and Identities Project. *Antiquity* 86: pp 332. Web URL: www.antiquity.ac.uk/projgall/gosden332/ [Accessed 10/10/15]

Green, C. 2013. Archaeology in Broad Strokes: collating data for England from 1500BC to AD1086. In A. Chrysanthi, D. Wheatley, I. Romanowska, C. Papadopoulos, P. Murrieta-Flores, T. Sly and G. Earl. (eds.). *Archaeology in the Digital Era: Papers from the 40th annual conference of computer applications and quantitative methods in archaeology (CAA), Southampton, 26-29 March 2012.* Amsterdam, Amsterdam University Press. Pgs. 307 – 312. Web URL: dare.uva.nl/cgi/arno/show.cgi?fid=516092 [Accessed 18/10/16].

Grenville, J. 1993. Curation Overview. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 125 – 133.

Halpern, D. F. 2003. *Thought and Knowledge: An Introduction to Critical Thinking, 4th Edition.* New Jersey, Erlbaum Associates.

Hamilton, C. 2000. Faultlines: the construction of archaeological knowledge at Çatalhöyük. In I. Hodder (ed.). *Towards reflexive method in archaeology: the example at Çatalhöyük.* Cambridge, McDonald Institute for Archaeological Research. Pp. 119 – 127.

Hammer, F. 2000. The structuring of records: different systems in use from excavation through to publication. In S. Roskams (ed.). *Interpreting Stratigraphy: site evaluation, recording procedures and stratigraphic analysis.* BAR International Series 910. Oxford, Archaeopress. pp 143 – 149.

Harlan, M. E. 2010. Black and White Literature, Grey Scholars. *Archaeologies* 6(2): 270 – 288.

Harris, E. C. 1975. The Stratigraphic Sequence: a question of time. *World Archaeology* 7 (1): 109 – 121.

Harris, E. C. 1989. *Principles of Archaeological Stratigraphy* (2nd edition). London, Academic Press Ltd.

Hawkes, J. 1982. *Mortimer Wheeler: adventurer in archaeology.* London, Weidenfeld & Nicolson.

Henson, D. 2012. *Doing Archaeology: a subject guide for students*. Oxon, Routledge.

Hicks, D. 2008. New Challenges of Past. *British Archaeology* 103. Pg. 39.

Hills, C. 1993. The Dissemination of Information. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: an introduction*. Gloucestershire, Stroud Publishing Ltd. Pgs. 215 – 224.

Historic England. 2016. *Understanding Historic Buildings: A Guide to Good Recording Practice*. London, Historic England. Web URL: https://historicengland.org.uk/images-books/publications/understanding-historic-buildings/heag099-understanding-historic-buildings/ [Accessed 15/08/19].

Historic England. 2017. *Understanding the Archaeology of Landscapes: A Guide to Good Recording Practice* (2nd Edition). London, Historic England. Web URL: https://historicengland.org.uk/images-books/publications/understanding-archaeology-of-landscapes/heag142-understanding-archaeology-of-landscapes/ [Accessed 15/08/19]

Hodder, I. 1989. Writing Archaeology: site reports in context. *Antiquity* 63: 268 – 274.

Hodder, I. 1993. Changing Configurations: the relationships between theory and practice. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 11 – 18.

Hodder, I. 1999. *The Archaeological Process*. Oxford, Blackwell Publishing Ltd.

Hodder, I. 2000. Developing a reflexive method in archaeology. In I. Hodder (ed.). *Toward reflexive method in archaeology: the example at Çatalhöyük*. Cambridge, McDonald Institute for Archaeological Research. Pgs. 3 -14.

Holbrook, N. 2015. Introduction. In M. Fulford and N. Holbrook. *The Towns of Roman Britain. The Contribution of Commercial Archaeology since 1990. Britannia Monograph 27*. The Society for the Promotion of Roman Studies, London. Pgs. 1 – 6.

Holtorf, C. 2000. Paul Feyerbend: towards a democratic relativism in archaeology. In C. Holtorf and H. Karlsson (eds.). *Philosophy and Archaeological Practice: perspectives for the 21st century.* Göteborg, Bricoleur Press. Pgs. 241 – 246.

Holtorf, C. 2007. *Archaeology is a brand! The meaning of archaeology is contemporary popular culture.* Oxford, Archaeopress.

Hunter, J. and Ralston, I. 1993. The Structure of British Archaeology. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 30 – 43.

Jenkins, K. 1993. *Rethinking History*. London, Routledge.

Johnson, M. 1999. *Archaeological Theory: an introduction*. Oxford, Blackwell Publishing Ltd.

Jones, A. 2002. *Archaeological Theory and Scientific Practice*. Cambridge, Cambridge University Press.

Jones, A. 2007. *Memory and Material Culture*. Cambridge, Cambridge University Press.

Jones, A. 2015. Assemblages, Relationality and Recursivity. Comments of 'Archaeology and Contemporaneity', by Gavin Lucas. *Archaeological Dialogues* 22(1): 21 – 24.

Jones, C. and Richardson, P. 2012. Stepping into Comfortable Old Shoes: 'The Consequence of Archaeological Comfortability. In H. Cobb, O. J. T. Harris, C. Jones and P. Richardson (eds.). *Reconsidering*

Archaeological Fieldwork: exploring on-site relationships between theory and practice. London, Springer. Pgs. 85 – 96.

Joyce, R. A. 2002. *The Languages of Archaeology.* Oxford, Blackwell Publishing Ltd.

Krathwohl, D. R. 2002. A revision of bloom's taxonomy: An overview. *Theory into Practice, 41*(4), 212 – 218.

Lambrick, G. (with Robinson, M. and Allen, T.) 2009. *Thames through Time: The Archaeology of the Gravel Terraces of the Upper and Middle Thames*. Thames Valley Landscapes Monograph No. 29. Oxford, Oxford Archaeology.

Last, J. 2008. The Agenda Gap? Approaches to the Bronze Age in Current Research Frameworks. *Bronze Age Review* 1, pp 34 – 47. Web URL: www.britishmuseum.org./pdf/BAR1_2008_4_Last_c.pdf {Accessed 20/05/16]

Last, J. 2012. Frameworks for Development-led Archaeology in England. In L., Webley, M. Vander Linden, C. Haselgrove and R. Bradley (eds.). *Development-Led Archaeology in Northwest Europe.* Oxford, Oxbow Books. Pgs. 128 – 138.

Lawson, A. J. 1993. English Archaeological Units as Contractors. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 149 – 157.

Lewthwaite, J. 1988. Living in Interesting Times: Archaeology as Society's Mirror. In J. Bintliff (ed.). *Extracting Meaning for the Past.* Oxford, Oxbow Books. Pgs. 86 – 98.

Lock, G. 2008. A Professional Mockery. *British Archaeology* 101. Pp 36 – 37.

Lowenthal, D. 1985. *The Past is a Foreign Country.* Cambridge, Cambridge University Press.

Lucas, G. 2005. *The Archaeology of Time*. London, Routledge.

Lucas, G. 2012. *Understanding the Archaeological Record*. Cambridge, Cambridge University Press.

Lucas, G. 2015. Archaeology and Contemporaneity. *Archaeological Dialogues* 22: pp 1 – 15.

MacLeod, M. and Svensson, K. 2000. The development of documentation in Swedish Medieval Archaeology. In S. Roskams (ed.). *Interpreting Stratigraphy: site evaluation, recording procedures and stratigraphic analysis.* BAR International Series 910. Oxford, Archaeopress. pp 11 – 15.

Maeer, G., Fawcett, G. and Killick, T. 2012. *Values and Benefits of Heritage: a research review.* London, National Lottery Fund.

Marsden, B. M. 1984. *Pioneers of Prehistory: Leaders and Landmarks in English Archaeology (1500 – 1900).* Ormskirk, G. W. & A. Hesketh.

McAdam, E. 1996. Trying to make it happen. In M. A. Cooper, A. Firth, J. Carman and D. Wheatley (eds.). *Managing Archaeology.* London, Routledge. pp 89 – 100.

McAnany, P. A. and Hodder, I. 2009. Thinking about archaeological excavation in reflexive terms. *Archaeological Dialogues* 16(1): 41-49.

McCullagh, C. B. 2004. *The Logic of History: putting postmodernism in perspective.* London, Routledge.

Meskell, L. and Preucel, R. W. (eds.) 2004. *A Companion to Social Archaeology*. Oxford, Blackwell Publishing.

Mizoguchi, K. 2000. Anthony Giddens and Niklas Luhmann. In C. Holtorf and H. Karlsson (eds.). *Philosophy and Archaeological Practice: perspectives for the 21st century.* Göteborg, Bricoleur Press. Pgs. 13 – 24.

MoLAS. 1994. *Archaeological Site Manual.* London, Museum of London. (3rd Edition).

Moore, T. 2006 (revised). *Following the Digger: The impact of developer-funded archaeology on academic and public perceptions of cultural landscapes.* Paper presented at the Forum UNESCO University and Heritage 10th International Seminar 'Cultural Landscapes in the 21st Century'. International Centre for Cultural Heritage Studies (ICCHS). University of Newcastle, 11-16 April 2005. Web URL: https://pdfs.semanticscholar.org/0f80/18bbac885764e609ffffef1bc374b2faa75c.pdf?_ga=2.248780485.331934021.1568558810-1713493291.1568558810 [Accessed 15/09/19].

Morrison, W., Thomas, R. and Gosden, C. 2014. Laying Bare the Landscape: commercial archaeology and the potential of digital spatial data. *Internet Archaeology* 36. Web URL: http://dx.doi.org/10.11141/ia.36.9 [Accessed 05/02/16].

Neal, C. 2012. Heslington East Archaeology Project: a summary. *The Post Hole* 23. Web URL: http://www.theposthole.org/read/article/165. [Accessed 02/07/13].

Neal, C. and Roskams, S. 2013a. *The Big Society, Localism and Community Engagement: uneasy bedfellows.* Unpublished paper presented at the IFA Conference.

Neal, C. and Roskams, S. 2013b. *The past beneath our feet: the communities of Heslington East.* York, Department of Archaeology, University of York.

Office for the Deputy Prime Minister (ODPM). 1990. *Planning Policy Guidance 16: Archaeology and Planning*. London, OPDM. Web URL: http://webarchive.nationalarchives.gov.uk/20120919132719/http://www.communities.gov.uk/documents/planningandbuilding/pdf/156777.pdf. [Accessed 02/07/13]

Olsen, B., Shanks, M., Webmoor, T. and Witmore, C. 2012. *Archaeology: the discipline of things.* London, University of California Press, Ltd.

Parker Pearson, M. 1993. Visitors Welcome. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 225 – 231.

Patrik, L. E. 1985. Is There an Archaeological Record? In M. B. Schiffer (ed.). *Advances in Archaeological Method and Theory*: Volume 8. London, Academic Press Inc.

Pearson, M. and Shanks, M. 2001. *Theatre / Archaeology: Disciplinary Dialogues*. London, Routledge.

Pinsky, V. 1989. Commentary: a critical role for the history of archaeology. In V. Pinsky and A. Wylie (eds.). *Critical Traditions in Contemporary Archaeology: essays in the philosophy, history and socio-politics of archaeology.* Albuquerque, University of New Mexico Press. Pgs. 88 – 91.

Pitt Rivers, A. 1898. *Excavations at Cranborne Chase, near Rushmore, on the Borders of Dorset and Wilts.* (Vol. IV). London, Privately Published.

Plog, S. 2006. Questions, Theory and Concepts. *Archaeological Dialogues* 13(2): 156 – 158.

Pluciennik, M. 1999. Archaeological Narratives and Other Ways of Telling. *Current Anthropology* 40 (5): 653 – 678.

Pluccienik, M. 2011. Theory, Fashion, Culture. In J. Bintliff and M. Pearce (eds.). *The Death of Archaeological Theory?* Oxford, Oxbow Books. Pgs. 31 – 47.

Renfrew, C. and Bahn, P. 2016. *Archaeology: theories, methods and practice* (7th Edition). London, Thames and Hudson.

Reynolds, N. and Barber, J. 1984. Analytical Excavation. *Antiquity* 58: 95 – 102.

Robinson, T. and Aston, M. 2002. *Archaeology is Rubbish: a beginner's guide*. London, Channel 4 Press.

Roskams, S. 2001. *Excavation. Cambridge Manuals in Archaeology*. Cambridge, Cambridge University Press.

Roth, B. J. 2010. An Academic Perspective of Grey Literature. *Archaeologies* 6(2): 337 – 345.

Roveland, B. E. 2006. Reflecting upon Archaeological Practice: multiple visions of a late Palaeolithic site in Germany, in M. Edgeworth (ed.) *Ethnographies of Archaeological Practice: cultural encounters, material transformations*. Oxford, AltaMira Press. Pgs. 56 – 67.

Scanlon, K., Fernandez, M., Travers, T. and Whitehead, C. 2011. *An economic analysis of the market for archaeological services in the planning process.*

Schiffer, M. B. 1987. *Formation Processes of the Archaeological Record*. Salt Lake City, University of Utah Press.

ScARF 2012a. *Chairman's Introduction*. Scottish Archaeological Research Framework: Society of Antiquaries of Scotland. Web URL: http://www.scottishheritagehub.com/content/chairmans-introduction [Accessed 03/01/2017]

ScARF 2012b. J. Downes (eds). *Chalcolithic and Bronze Age Panel Report.* Scottish Archaeological Research Framework: Society of Antiquaries of Scotland. Web URL: http://tinyurl.com/clxgf5s [Accessed 01/06/16]

Schofield, J. 2013. *'Thinkers and Feelers': A Psychological Perspective on Heritage, Localism and Society.* Unpublished paper presented at the IFA Conference.

Seymour, D. J. 2010. In the Trenches Around the Ivory Tower: introduction to black-and-white issues about grey literature. *Archaeologies* 6(2): 226 – 232.

Shanks, M. 2012. *The Archaeological Imagination*. California, Left Coast Press Inc.

Shennan, S. 2004. Analytical Archaeology. In J. Bintliff (ed.). *A Companion to Archaeology*. Oxford, Blackwell Publishing Ltd. Pgs. 3 – 20.

Sherratt, A. 1993. The relativity of theory. In N. Yoffee and A. Sherratt (eds.). *Archaeological Theory: who sets the agenda?* Cambridge, Cambridge University Press. Pgs. 119 – 130.

Skeates, R. 2000. *Debating the Archaeological Heritage*. London, Gerald Duckworth & Co. Ltd.

Smith, L. 2007. The discourse of 'the past'. In S. Grabow, D. Hull and E. Waterton (eds.). *Which Past, Whose Future? Treatment of the past at the start of the 21st century: an international perspective*. BAR International Series 1633. Oxford, Archaeopress. pp 5 -14.

Southport Group 2011. Realising the benefits of planning-led investigation into the historic environment: a framework for delivery. Web URL: https://www.archaeologists.net/sites/default/files/SouthportreportA4.pdf [Accessed 16/06/12].

Spence, C. 1993. Recording the Archaeology of London: the development and implementation of the DUA recording system. In E. Harris, M. Brown and G. Brown (eds.). *Practices of Archaeological Stratigraphy.* London, Academic Press. pp 23 – 46.

Staaf, B. M. 2000. Hannah Arendt and Torsten Hägerstrand: converging tendencies in contemporary archaeological theory. In C. Holtorf and H. Karlsson (eds.). *Philosophy and Archaeological Practice: perspectives for the 21st century*. Göteborg, Bricoleur Press. Pgs. 135 – 152.

Startin, B. 1993. Assessment of Field Remains. In J. Hunter and I. Ralston (eds.). *Archaeological Resource Management in the UK: An Introduction.* Gloucestershire, Stroud Publishing Ltd. Pgs. 184 – 196.

Stones, R. 2005. *Structuration Theory*. Hampshire, Palgrave MacMillan.

Strathern, M. 2006. A Community of Critics? Thoughts on New Knowledge. *The Journal of the Royal Anthropological Institute* 12 (1): 191 – 209.

Ten Harkel, L. 2014. 'The English Landscapes and Identities Project'. *Dissertation Reviews – Medieval Studies – Taking Shop*. 6 May 2014. Web URL: http://dissertationreviews.org/archives/8716 [Accessed 18/10/16]

Thomas, J. 2004a. *Archaeology and Modernity*. London, Routledge.

Thomas, J. 2004b. The Great Dark Book. Archaeology, Experience and Interpretation. In J. Bintliff (ed.). *A Companion to Archaeology*. Oxford, Blackwell Publishing Ltd. Pgs. 21 – 36.

Thomas, R. M. 2007. Development-led Archaeology in England. In K. Bozoki-Ernyey (ed.). *European Preventative Archaeology: papers of the EPAC meeting, Vilinius 2004.* Web URL: www.coe.int/t/dg4/cultureheritage/heritage/Archaeologie/EPreventatuveArchwebversion.pdf [Accessed 01/06/16].

Thomas, R. M. 2013. Bridging the Gap? Scale and development-led archaeology in England today. *Landscapes* 14(1): 92 – 102.

Thomas, R., Morrison, W., and Gosden, C. 2015. Laying bare the Upper Thames Valley. *British Archaeology* 140: 24-29.

Thompson, M. W. 1977. *General Pitt Rivers: evolution and archaeology in the nineteenth century*. Wiltshire, Moonrake Press.

Thorpe, R. 2012. Often Fun, Usually Messy: Fieldwork, Recording and Higher Orders of Things, in H. Cobb, O. J. T. Harris, C. Jones and P. Richardson (eds.) *Reconsidering Archaeological Fieldwork: exploring on-site relationships between theory and practice*. London, Springer. Pgs. 31 – 52.

Tilley, C. 1989a. Archaeology as socio-political action in the present. In V. Pinsky and A. Wylie (eds.). *Critical Traditions in Contemporary Archaeology: essays in the philosophy, history and socio-politics of archaeology.* Albuquerque, University of New Mexico Press. Pgs. 104 – 116.

Tilley, C. Y. 1989b. Discourse and Power: the genre of the Cambridge inaugural lecture, in D. Miller, M. Rowlands and C. Y. Tilley (eds.). *Domination and Resistance*. London, Routledge. Pgs. 40 – 61.

Tilley, C. 1993a. Interpretation and a poetics of the past. In C. Tilley (ed.). *Interpretative Archaeology*. Oxford, Berg Publishers. pp 1 -27.

Tilley, C. (ed.) 1993b. *Interpretative Archaeology*. Oxford, Berg Publishers.

Trouillot, M. R. 1995. *Silencing the Past: Power and the Production of History*. Boston, Beacon Press.

van Reybrouck, D. and Jacobs, D. 2006. The Mutual Constitution of Natural and Social Identities during Archaeological Fieldwork, in M. Edgeworth (ed.) *Ethnographies of Archaeological Practice: cultural encounters, material transformations*. Oxford, AltaMira Press. Pgs. 33 – 44.

Vander Linden, M. and Webley, L. 2012. Introduction: development-led archaeology in northwest Europe. Frameworks, practices and outcomes. In L. Webley, M. Vander Linden, C. Haselgrove and R. Bradley (eds.). *Development-led Archaeology in Northwest Europe*. Oxford, Oxbow Books. Pgs. 1 – 8.

Vlachiditis, A., Binding, C., May, K. and Tudhope, D. 2009. *Excavating Grey Literature: A case study on rich indexing of archaeological documents by the use of Natural Language Processing Techniques and Knowledge Based Resources.* Web URL:

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.551.1066&rep=rep1&type=pdf [Accessed 20.03.16]

Walker, J. 1988. Community Archaeology and the Archaeological Community: a normative sociological approach. In J. Bintliff (ed.). *Extracting Meaning for the Past*. Oxford, Oxbow Books. Pgs. 50 – 64.

Wallace, J. 2004. *Digging the Dirt: The Archaeological Imagination*. London, Gerald Duckworth & Co. Ltd.

Watson, B. 2000. MAP2 Nine Years On: a review of post-excavation procedures. In S. Roskams (ed.). *Interpreting Stratigraphy: site evaluation, recording procedures and stratigraphic analysis.* BAR International Series 910. Oxford, Archaeopress. pp 151 – 155.

Wheeler, M. 1943. *Maiden Castle.* London, The Society of Antiquaries.

Wheeler, M. 1950. What matters in Archaeology? *Antiquity* 25: 122 – 130.

Wheeler, M. 1954. *Archaeology from the Earth.* London, Oxford University Press.

Wilkins, B. 2012. Where the rubber hits the road: a critical analysis of archaeological decision making on Highways projects in Ireland. In H. Cobb, O. J. T. Harris, C. Jones and P. Richardson (eds.). *Reconsidering Archaeological Fieldwork: exploring on-site relationships between theory and practice*. London, Routledge. Pgs. 53 – 66.

Wilmore, M. 2006. Landscapes of Disciplinary Power: An ethnography of excavation and survey at Leskernick, in M. Edgeworth (ed.) *Ethnographies of Archaeological Practice: cultural encounters, material transformations*. Oxford, AltaMira Press. Pgs. 114 – 125.

Wylie, A. 1993. A proliferation of new archaeologies. "Beyond objectivism and relativism". In N. Yoffee and A. Sherratt (eds.). *Archaeological Theory: who sets the agenda?* Cambridge, Cambridge University Press. pp 20 – 26.

Wylie, A. and Chapman, R. 2015. Material Evidence: Learning from Archaeological Practice, in R. Chapman and A. Wylie (eds.) *Material Evidence: Learning from Archaeological Practice*. Oxon, Routledge. Pgs. 1 – 20.

Yates, D. T. 2007. *Land, Power and Prestige: Bronze Age Field Systems in Southern England*. Oxford, Oxbow Books.

Yoffee, N. and Sherratt, A. (eds.). 1993. *Archaeological Theory: Who sets the agenda?* Cambridge, Cambridge University Press.