

Towards an Assessment of the Value of Archaeological Education for Primary School Pupils

Trudie Cole

UCL

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(PhD)

Declaration

I, Trudie Jane Cole confirm that the work presented in this thesis is my own.

Where information has been derived from other sources, I confirm that this

has been indicated in the thesis.

Abstract

Archaeological education is under researched and poorly understood and despite drawing upon the richly theorised fields of archaeology and education, archaeological education is also under theorised. Therefore, I have sought to add to the limited knowledge about archaeological education by exploring the theoretical basis for archaeological education. I have identified the range of relevant educational and archaeological theories and used this information to develop a framework for analysing the theoretical basis for archaeological education. I used this framework to deconstruct the theoretical basis of a selection of archaeological education programmes.

I was interested in how the theoretical basis for archaeological education might relate to its value for pupils. Therefore, I explored how a selection of archaeological education programmes might have value for pupils in terms of enjoyment, educational value and empowerment. I analysed how these values relate to the theoretical basis of those programmes.

These ideas were chiefly investigated through the non-participant observation, written assessments and analysis of the experiences of pupils from 12 different schools engaging with the archaeological education programmes of five different organisations. This research revealed that archaeological education can be deconstructed against a range of different theories, and is variable, but tends to be educationally progressive. The

relationship between archaeological education and value for pupils is complex, but pupils generally seem to enjoy engaging with archaeological education and there does seem to be a suggestion of a link to empowerment, particularly when pupils are given opportunities to explore freely.

However, there is an unrealised potential for archaeological education and thus I hope that this study will encourage others to explore these ideas further and will provoke archaeologists and archaeological education specialists to examine the theoretical influences of archaeological education more closely.

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List of Abbreviations

CAT:	Canterbury Archaeological Trust
CBA:	Council for British Archaeology
CRM:	Cultural Resource Management
EH:	English Heritage
ELT:	Experiential Learning Theory
ESAMP:	East Sussex Archaeology and Museums Project
GCSE:	General Certificate of Secondary Education
GLO:	Generic Learning Outcomes
HLF:	Heritage Lottery Fund
HWTMA:	Hampshire Wight Trust for Maritime Archaeology
IfA:	Institute for Archaeologists (previously known as Institute of Field Archaeologists)
ILfA:	Inspiring Learning for All
IQ:	Intelligence Quotient
MLA:	Museums Libraries and Archives Council

MoLAS	Museum of London Archaeological Service
PPG16:	Planning Policy Guidance Note 16
PPS5:	Planning Policy Statement 5
QCA:	Qualifications and Curriculum Authority
RCMG:	Research Centre for Museums and Galleries
SEN:	Special Educational Needs
TCPA 1990:	<i>Town and County Plan Act 1990</i>
TWA:	Trust for Wessex Archaeology
UCL:	University College London
USA:	United States of America
VAK:	Visual, Auditory, Kinaesthetic
YAC:	Young Archaeologists Club
ZPD:	Zone of Proximal Development

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Chapter 1

Introduction

1.1 Introduction

There has been relatively little previous research into archaeological education (Corbishley 2011, 87; Jameson and Baugher 2008, 7; Stone 1997, 26) which has meant that as a sub-discipline it is poorly understood (Davis 2005, 4). If the parallel situation within museums is considered, where educational work is more firmly established (e.g. Roberts 1997) and comparatively well researched (for example there are two British journals specifically devoted to museum learning: the Museum Education Monitor and the Journal for Museum Education), then it is immediately apparent that more research into archaeological education is necessary. The need for research is also demonstrated by the lack of clarity regarding the definition of archaeological education. Broadly speaking archaeological education is a form of archaeological public engagement, but beyond this there seems to be little agreement regarding exactly what this means: the term public archaeology has been used to describe general engagement or educational work (Bartoy 2012), some use the term archaeological education to mean any education about archaeology (which can include archaeological training at a professional/university level) (Jameson and Baugher 2008), whereas others are specific in excluding education in these terms and instead focus

on education through archaeology rather than about archaeology (Jeppson and Brauer 2008, 232). Thus in this thesis I present a basic research about archaeological education in order to develop ideas and understanding about it.

As exploratory research, an important goal of the research described here is to understand the relationship of archaeological education to the wider context of archaeological public engagement in general. Therefore, this is not just an investigation into archaeological education for its own sake, but part of the wider debate about public engagement and this is a contentious and exciting field of discourse related to discussions about authority and power: some archaeologists have argued strongly that public engagement is a moral responsibility (e.g. Jameson and Baugher 2008, 7; Smardz 1997, 103), whereas other archaeologists see engagement as important in order to promote the stewardship goals of archaeologists (e.g. Franklin and Moe 2012) (see p. 91). These perspectives are associated with different theoretical standpoints and as such I see the value of archaeological education as inextricably linked to its theoretical basis, yet as the general understanding of archaeological education is poor, so too is the understanding of its theoretical underpinnings. Therefore, this research engages with the wider debates around engagement and examines the specific role that archaeological education has to play within these. This is cited within an appreciation of the theoretical context of the subject. Thus this research is important for two reasons: first, because it contributes knowledge in an under-researched area and second, because it is specifically

concerned with the social and political impact of archaeology upon a specific audience, namely, school pupils.

These research aims have been crystallised into two research questions which frame the research and the discussion in this thesis. They are as follows:

Research Question 1: Which archaeological and educational theories are relevant to archaeological education?

Research Question 2: What is the relationship between the different theoretical approaches to archaeological education and its value for pupils?

These research questions are further broken down into a number of objectives to help clarify the research and these are described later in this chapter (see p. 33). The details of how these questions have been researched are introduced in this chapter (see p. 35) and developed fully in Chapter 5 where the research tools and methods have been described. The rest of this thesis is devoted to addressing these research questions.

Early reading around the subject of archaeological education highlighted the paucity of research into the subject, but also revealed the links between archaeological education, the wider field of archaeological public engagement and the social and political impacts of archaeology. A literature review also revealed that a number of authors (e.g. Davis 2005; Stone 2004) have claimed that archaeological education is empowering for pupils (see p. 93). This idea is partially derived from direct observation, but also related to the link between archaeological education and the wider field of discourse about the impact of archaeological engagement. However, in

terms of archaeological education there has been little systematic and critical evaluation of the claim that archaeological education offers an empowering experience for pupils. These ideas have been explored during the course of this research and are discussed in this thesis. Thus, given the exploratory nature of the research and the subjective nature of the experiences investigated, a broadly qualitative approach to the research has been taken. This has been described later in this chapter (see p. 35) and more fully in Chapter 5.

Given that different authors have defined archaeological education in different ways and this has fuelled the general misunderstanding of the sub-discipline then a fundamental starting point for this research is to define what I mean by the term. Thus my definition of archaeological education and other key definitions are discussed and set out in Chapter 2. However, it is appropriate to set out an initial definition here in order to begin to frame the research described thereafter. I define archaeological education as being the use of archaeology in a formal compulsory learning context. This means there is a specific context for archaeological education which is constrained by formal compulsory state funded education. In practice the educational context has been limited even further to an examination of archaeological education through the lens of primary education and this is for three reasons. First, preliminary research revealed that primary education tends to be the focus for archaeological education programmes and resources and what I have attempted to do is to investigate and reflect archaeological education as it practised. Second, it is during the Key Stage 1 and 2 (the primary phase) history curriculum that archaeology receives a mention (Department

for Education 2011a; Department for Education 2011b). In fact this is probably largely the reason that archaeologists focus their educational work at primary school aged children. Third, some authors have claimed that archaeology is a cross-curricular subject (see p. 98) and therefore, is also most suitable for primary phase education where cross-curricular projects are more likely to be found than in secondary schools. Having made this point, it should be noted that where useful and interesting insights about archaeological education at secondary level can be seen, they have been included in the discussion. Similarly, the focus for this research is archaeological education in the UK but perspectives from other countries have also been included where they develop the debate and understanding around the Research Questions.

Having initially introduced the research here and outlined the issues that this research seeks to address the background to this research is developed in the following section. Thereafter I set out the aims of this research and the objectives associated with the Research Questions. Following this I give an overview of the research tools and methods used and set out a chapter plan.

1.2 Background

Some archaeologists have been interested in working with school pupils for a long time (Corbishley 2011, 82). Kehoe (2012, 538) argues that it is possible to trace the roots of archaeological education to the nineteenth century with the birth of archaeology as a scientific discipline, and as far back as 1943,

Clark discussed the importance of teaching prehistory in schools (cited by Fox 1944, 153). More recently publications about educational work with heritage organisations (e.g. Corbishley 2011; Henson, Stone and Corbishley 2004) indicate that archaeologists continue to deliver a range of interesting educational projects using a variety of approaches.

The wide range of approaches that archaeologists have employed in delivering archaeological education reflects the diversity of archaeology and archaeological practice. As such it should be stated that throughout this thesis the definition of archaeology is wide, both in terms of material (both physical and intellectual) and time span. This follows Corbishley's (2011, 6) definition which includes sites, monuments and landscapes influenced by humans as well as all human material culture and covers the entire time span of human endeavour beginning with early hominid development and butting right up to the present. This broad definition also covers both what has been termed tangible and intangible heritage (Smith 2006, 30) and thus includes not only material culture, but people's memories and stories and their emotional response to material culture. Similarly the research net covering approaches to archaeological education has also been cast widely and includes approaches which range from outdoor based field work projects (e.g. HWTMA, 2007) to classroom based artefact work (e.g. Pearson 2001, 9-10). In taking this wide view what has been revealed is that there are some approaches which are more popular than others and the approach taken is often determined by practical concerns, such as the archaeological resources available (e.g. Pearson 2001, 63), the archaeological educator who is delivering the programme (e.g. Corbishley 2011, 86 and 89) and the

curriculum needs that teachers require to be met (e.g. Zimmerman *et al* 1994, 369). Understanding the different practical approaches to archaeological education and their effectiveness in meeting the needs of pupils is a key facet of this study. More detail about the practical approaches to archaeological education which are employed can be found in Chapter 2 (see p. 83). Crucially, although the practical approaches to archaeological education have been relatively well documented with authors such as Pearson (2001) providing guides on the subject, the theoretical basis which underpin these practical approaches is poorly understood (e.g. Stone 1997, 26). Yet, the value of archaeological education, as I have argued throughout this thesis, is potentially linked to the theoretical basis for archaeological education and thus understanding how archaeological education can be deconstructed theoretically is a key aim of this research.

As was indicated above (see p. 14) some authors have not been as specific in their definition of archaeological education as I have been, but it should be stated that throughout this thesis archaeological education has been regarded as a distinct sub-discipline of archaeology albeit one that is related to other areas of public engagement. The separate and distinct nature of archaeological education is explored in Chapter 2. However, it is important to stress here that this distinction has not been applied as a mere convenience or as an artificially imposed separation, but because it is my premise that archaeological education is truly distinct from other forms of public engagement and archaeological communication, specifically in relation to its intended audience. The definition of archaeological education applied throughout

this thesis relates to archaeological engagement targeted towards the formal compulsory education of school pupils.

This means that archaeological education differs from other forms of engagement in two key ways. First, school children, as a community follow a prescribed curriculum and are organised within close age ranges. In short the school setting is uniform (Jackson 1994, 113) compared to the variability seen within communities in general. Therefore, although it is possible to carry out a community archaeology project with a school community (e.g. Paz 2012), in most cases the communities who engage with community archaeological projects will be more varied than those seen in school settings (see p. 56). Thus it is my assertion that the context of the school system creates a set of specific of constraints, barriers and opportunities not seen in other communities and that by not making a distinction between schools and other communities a true understanding of the specific context is lost. Second, children in the UK between the ages of five and 16 are compelled to undergo a programme of formal education (Brisard and Menter 2008, 240 [1999]; Jackson 1994, 113) and so if a teacher has decided that a class of school pupils will visit an archaeological site or study an archaeological period then traditionally pupils have had very little choice in the matter. This element of compulsion and the fact that pupils have not necessarily chosen to engage with archaeological education adds to the specific school context and creates a set of issues which are not present in informal learning settings where individuals have made a choice themselves to engage. This last point is

related to the fact that the educational settings I am interested in are compulsory and this is in turn related to political nature of education, which is therefore also of interest here (see p. 183).

This is a brief consideration of two features which separate archaeological education from other forms of archaeological engagement. The difference (and similarities) with other forms of public engagement, specifically public archaeology, community archaeology and museums learning, are set out and discussed in greater depth in Chapter 2. Similarly, within this definition of archaeological education the political context for state funded compulsory education is also relevant, as is the wider political context for archaeology. These ideas and the relationships between education and politics, archaeology and politics and where the two meet have been debated in Chapter 4. Through this discussion observations and insights from public archaeology, community archaeology, indigenous archaeology and museum interpretation have also been drawn out and discussed. This discussion situates archaeological education as separate from other forms of archaeological engagement, but relates it to them theoretically and politically. This is particularly relevant since the political and theoretical debate is more advanced for these other related areas than it is for archaeological education and thus referencing the wider debate offers potential insights for archaeological education. Given the political context for education which is also discussed in Chapter 4 (see p. 184) it is perhaps surprising that there has not been more discussion of the political and theoretical contexts for archaeological education, but it also

highlights a key gap in the understanding of archaeological education which is tackled in this thesis.

In terms of the educational context, in England, at the time of this research the National Curriculum as the statutory framework for education in England was a highly significant (and arguably the most important) influence on whether or not teachers chose to engage in archaeological education. Archaeology is not a subject in its own right when it comes to the National Curriculum (Henson 2004a, 23), but is referred to through the history curriculum. Therefore, the ideas that underpin the National Curriculum and in particular those which pertain to the teaching of history have also had an impact upon what approaches archaeologists use to deliver archaeological education.

It should be noted that the National Curriculum engenders specific ideas about teaching and learning and is influenced by particular educational ideologies (Bartlett and Burton 2009, 88 [2007]). Crucially the National Curriculum creates an external driver for education in that it defines what pupils should learn (Martin 2008, 223) rather than making the pupils' needs central to design of the curriculum which is broadly referred to as a child or pupil led approach (Bartlett and Burton, 2009, 24 [2007]). Pupil led approaches (progressive education) tends to ascribe higher value to personal development than the mere acquisition of facts and knowledge (Kerry and Eggleston 1994; Matheson, C. 2008, 26 [1999]; Pollard 1994, 12) and some claim that archaeological educators have also been influenced by these ideas (Kehoe 1990, 208-209). This simplistic view, which skims over the complexity of the situation, has been posited to highlight the influence of

alternative educational theories and ideologies on modern teaching and learning. The relevance of the debate to archaeological education has been expanded and explained in Chapters 2, 3 and 4.

Thus it is my premise that studying archaeological education is particularly interesting not just as part of the wider consideration of archaeological engagement in general but specifically because of its relationship and interaction with the formal compulsory education system. As will be demonstrated the field of education is the subject of contentious and spirited debate about its nature and role (see p. 183) and this creates an interesting dimension to the discussion of archaeological education. Notably, as is discussed later, links have been drawn between progressive educational ideologies and theories and progressive archaeological theories (see Chapter 3). In fact, in many ways the idea that archaeological education is a liberal pursuit and is complementary to progressive ideas about education is a central theme running through this thesis which is critically examined.

An appreciation of the political nature of public engagement goes hand in hand with an overt acknowledgement of the importance of theory in defining practice. The wider field of archaeological engagement is relatively well theorised and although there have been some attempts to theorise archaeological education (see Chapter 3) these are limited and underdeveloped. Therefore it is no surprise that Stone (1997, 26) stated that the theoretical basis for archaeological education is poorly understood. This situation is mirrored within museums education (which is in general terms much more thoroughly researched than archaeological education) and has

been summarised by Hooper-Greenhill who commented, “while there are 25-30 years of good practice to draw on, museum education is under-researched and under-theorised” (2007, 5).

The current theoretical understanding of archaeological education has been set out in Chapter 3, but has been summarised here. Planel (1990) made a link between the New History and processual archaeology and more recently Copeland (2004a, 134) made a link between the educational theories of constructivism and post-processual archaeology. In terms of the related field of museums, Peterman (1997, 4) recognises the theoretical link to constructivism, but has questioned its real impact. Other progressive educational theories and ideas have been linked to heritage learning. Specifically, the Inspiring Learning for All (ILfA) framework which was launched by the Museums Libraries and Archives Council (MLA) in 2001 was underpinned by progressive educational theories (Hooper-Greenhill, 2007, 46) and there are references to Gardner’s multiple intelligence theory on the ILfA website (e.g. see the assessment entitled, ‘What is Your Learning Style’) (MLA 2008a). Unpicking the underlying theories which guide archaeological education is a complex task: the theoretical framework for archaeological education is often applied unconsciously as practitioners tend to respond to an educational need dictated by prevailing educational theories but also influenced by prevailing archaeological theories. Furthermore, the ILfA example above indicates that there is confusion regarding different educational theories and ideas, since what this example shows is that Gardner’s theory of intelligence has been conflated with learning styles

theory. Thus developing a critical understanding of the theoretical basis for archaeological education is enshrined in Research Question 1.

Given that archaeology and education individually are richly theorised subjects it is surprising that at the place where the two overlap through the practice of archaeological education there has been so little theoretical discourse. Moreover there is a sense that the understanding that does exist may be confused and confusing: notably multiple intelligence theory and learning styles theory are not the same yet these terms are used interchangeably within the ILfA framework and although it is possible to draw upon several theories simultaneously there is seems to be a conflation of terms. Furthermore constructivism is a complex umbrella term which encompasses several different branches of theory (Dennick, 2008, 49 [1999]), but the references cited from Copeland (e.g. 2004a) and Peterman (1997) indicate a simplistic understanding which does not identify the nuances of the range of constructivist thought. Therefore, it is for these additional reasons that the analysis of archaeological education in terms of its theoretical basis has been justified and is framed by Research Question 1. In terms of this research that has involved the analysis of a range of archaeological education programmes based on first hand observations as well as developed from an understanding drawn from the literature.

Therefore understanding the theories which underpin practice is a key theme for this thesis. However, there is another aspect to the investigation which is about understanding not just which theories underpin practice, but also which theories motivate archaeologists to become involved in this work in the first place. In practice this can be viewed in terms of two alternative

arguments (see p. 194) one is that archaeological education helps to spread archaeological messages, particularly those regarding preservation. Various terms have been used to describe this argument including the 'deficit model' (Merriman 2004, 5-6) and the 'consumerist model' (McGuire 2008, 144). This argument is associated with processual theories. The other argument rests on the premise that engaging with archaeology can be empowering and beneficial for audiences, communities and other non-archaeologists. Merriman (2004, 6-7) has used the term 'multiple perspectives model' to describe the argument. This second argument is often at the heart of community archaeology programmes (e.g. McDavid 2004, 161) and indigenous archaeology (e.g. Ucko, 2001) and tends to be related to post-processualist thinking (McDavid 2004, 167). This link to indigenous archaeology means that perspectives from this area are particularly interesting in terms of this thesis since the debate about the potential for archaeology both to maintain and subvert power relations is brought into sharp focus in these contexts. As such indigenous archaeology has much to offer the understanding of this debate even within Western contexts (Smith 2006, 300).

It is worth stating here that in asserting that there are two arguments for archaeological education, referred to as the multiple perspectives model and the deficit model throughout this thesis, there is a danger of over simplifying the matter. These two arguments are not clear-cut polar opposites. Instead they should be thought of as representing two ends of a spectrum with most archaeologists invoking both arguments to some degree when justifying educational work. However, understanding the motivations

for archaeological education and the theories which underpin them is an important theme for this research and has been referred to throughout this thesis. These ideas have been explored specifically through Research Question 2.

In particular progressive approaches to education are of particular interest in terms of archaeological education since the idea of placing the pupil at the heart of their education (Martin 2008, 219 [1999]) overlaps with the post-processualist ideas of empowering multiple voices and sharing authority for interpretation, this in turn is also related to the multiple perspectives model justification for archaeological education. Viewed in this light, Copeland's (2004a, 134) link between post-processualist thought and constructivism can be better understood. Within this view the value of archaeological education **for** pupils becomes central to the analysis of archaeological education.

The concept of the value of archaeological education requires further consideration and the starting point for that can be found with the claims that some archaeologists have made about the skills and attributes that archaeological education helps pupils to develop. For example, according to different authors archaeological education has the potential to aid pupils in developing problem solving skills (Ballantyne 1998, 77; Keen 1999, 230–233), inquiry skills (Kehoe 1990, 208), self-confidence (Armstrong 1996, 22–23; Keen 1999, 230–233) and empathy (Keen 1999, 230–233). The possibility that archaeological education has an impact upon attributes such as self-confidence is an interesting proposition: the inequalities of power relations within the classroom, whereby pupils can largely be viewed as powerless

has been asserted (Jackson 1994, 118) and given that an analysis of power relations is a key aspect of post-processualist archaeology it becomes apparent that post-processualist archaeology could have a role in the classroom in empowering pupils, which can be viewed as valuable to them. An archaeological approach which questions received wisdom and then shares authority for interpretation by giving value to marginal views (i.e. those of pupils with a traditional classroom setting) could have an impact upon the way those pupils feel about themselves. This can be seen as similar to the way that reclaiming histories has had a positive impact for first nations, indigenous peoples and other marginalised groups (e.g. Hodder 1991b, 13-15; Kehoe 1990, 202). In fact, this summarises the key attraction for Davis (2005, 4) in studying archaeology over other subjects. This idea derived from the literature, potentially sets archaeological education apart from other non-school based educational initiatives such as environmental education, outdoor education and science education. These ideas have guided the development of the Research Questions and thus exploring the potential of archaeological education to empower pupils and the overarching relationship between engagement and social justice is a key theme of this thesis.

An alternative proposition is that education in an archaeologically rich environment may have value for pupils because it follows models of educational best practice. For example, as Hooper-Greenhill (2007, 174) postulates:

It is certainly probable that pupils who 'shine' unexpectedly in museums are reaping the benefit of being able to use a range of learning styles and resources that are not always available in the classroom.

Although Hooper-Greenhill made her suggestion with regard to museum learning it is possible that the same could be said for archaeological education.

Given the fact that archaeological education is generally poorly understood and under-researched (Davis 2005, 4; Stone 1997, 26) it follows that there is not a substantial body of evidence which support the claims for the benefits of archaeological education and without this evidence base it is difficult to fully understand why (and in fact **if**) any benefits might occur.

In terms of evaluation studies archaeological educators could take useful lessons from colleagues within the museum learning sector. Hooper-Greenhill (2007) has commented that in recent years significant work has been undertaken to develop new methodologies for understanding museum learning and to publish evaluation results. This has largely been driven by the need to prove the educational value of museums in order to receive government funding (Hooper-Greenhill 2007, 17). This need to prove that museums are effective at delivering learning led to the development of the ILfA framework and the distillation of five generic learning outcome (GLO) categories for measuring learning (Hooper-Greenhill 2007, 44; MLA 2008b). The framework includes a toolkit to help museum professionals to plan for and measure learning using the GLOs (Hooper-Greenhill 2007, 20). The use of this framework could be extended beyond museums education, but there is little published evidence to suggest that archaeological educators are making widespread use of these tools and certainly the framework had not been used by the archaeological organisations whose programmes were specifically investigated as part of this research (see Chapter 6). Museums

and government agencies with responsibility for heritage do deliver archaeological education, but a variety of other organisation types (such as private sector contracting archaeological units) who also deliver archaeological education programmes are often outside of the scope of the government's cultural policies and also government funding arrangements which have driven the evaluation of educational output and the development of ILfA.

Despite the dearth of research targeted towards understanding archaeological education Davis' work is a notable exception. Davis (2005) undertook significant research into archaeological education in the mid-1990s which she later wrote up into a book published in 2005. Davis (2005, 3) worked with 4th grade students (9-10 years old) from two schools and the Crow Canyon Archaeological Center in Colorado, USA to investigate the way children learn about the past. Crucially, she investigated archaeological education from the perspective of the pupils she worked with and used a largely qualitative approach (Davis 2005, 49-50). This study is interesting, well considered and insightful, but is of limited use in understanding archaeological education in the UK, as the legislative context is significantly different (i.e. there is no National Curriculum in the USA). Additionally, although Davis does consider archaeological education from the perspective of its theories, she does not systematically deconstruct archaeological education.

In summary archaeological education can be justifiably viewed as a subject in its own right, particularly in terms of its audience, and this position will be developed throughout this thesis. Archaeological education draws

upon a range of influences (theoretical, political and practical) from other fields: notably, archaeology and education in general, but also from archaeological engagement and the related sub-disciplines of community archaeology, public archaeology, indigenous archaeology and museums education. The fields of influence for archaeological education are relatively well researched and theorised but archaeological education is not. This lack of clarity regarding the theoretical basis for archaeological education hinders the understanding of how, why and if it has value for pupils.

1.3 Research aim

Archaeological education is potentially a very important branch of archaeology. It concerns how archaeologists communicate with school pupils and their teachers. This is a very large and important group of people to engage with and there are a number of potential benefits both for pupils and archaeologists if they manage these interactions successfully (these benefits have been considered briefly above and will be explored in more depth in following chapters). Yet, despite the potential importance of the work of archaeological education it seems to be poorly understood by both archaeologists and school teachers (Davis 2005, 4; Stone 1997, 26). Therefore, the research set out in this thesis was motivated by a broad purpose to add to the emerging canon of work about archaeological education and the more specific purpose of understanding its theoretical basis and whether or not it is of *value* to pupils. These purposes were clarified by setting two research questions and associated objectives:

1. Which archaeological and educational theories are relevant to archaeological education?
 - To identify the range of possible archaeological and educational theories relevant to archaeological education.
 - To deconstruct archaeological education in practice in terms of a range of archaeological and educational theories.

2. What is the relationship between the different theoretical approaches to archaeological education and its value for pupils?
 - To understand how archaeological education can provide an effective model for teaching and learning with reference to its theoretical context.
 - To explore whether or not archaeological education empowers pupils.
 - To identify what pupils themselves most enjoy about a range of different archaeological education programmes.

Archaeological education is not standardised or governed by a set of guiding principles and is diverse in the approaches used to deliver it. This diversity of archaeological education is a reflection of the diversity of archaeological method and theory, but this only partially explains range of approaches employed. It also reflects a number of practical constraints which are unique to its practice and not reflected within archaeology in general (i.e. working with children within a school context) and also to the fact that it is not necessarily carried out by archaeologists (see p. 73). This means that understanding the theoretical basis for archaeological education is not a simple exercise of extrapolating archaeological and educational theory. Detailed and extensive analysis has been applied throughout the course of

this research to understand and clarify the theoretical framework for archaeological education and deconstruct its practice in this way. The first step in this process involves building a picture of the range of approaches employed (see p. 83). Second, references to different theories are identified and those theories discussed in terms of their potential relevance for archaeological education (see p. 109). Third, a selection of archaeological education programmes are analysed against key characteristics of each of the relevant theories (see Chapter 6).

Alongside the steps outlined above which are primarily designed to investigate Research Question 2 the idea of value is explored and related to different theoretical perspectives. This involves identifying the claims that archaeologists have made for archaeological education (see p. 96) and also to understanding the context for the relationship between the different theories (see Chapter 3). In Chapter 4 I discuss the specific relationship between the different broad theoretical traditions (e.g. positivist and non-positivist) and value through the overt discussion of the political context for archaeological education and this involves engaging with the wider debate about the political role of archaeology and engagement. Essentially in Chapters 2, 3 and 4, I discuss the practical, theoretical and political context for archaeological education by relating understanding to the wider fields of archaeology and education in general and specifically to the umbrella of archaeological public engagement. These discussions form the platform from which five case studies are described and analysed to specifically explore the theoretical basis of archaeological education and its value for pupils. The findings from these case studies are presented in relation to the wider

context Chapter 6 and are discussed in terms of how they address the research questions in Chapter 7. I present an account of the methods and tools used to address the Research Questions in Chapter 5 and summarise those in the next section.

1.4 Methods and research tools

Chapter 5 is devoted to setting out the methods and research tools used and the rationale behind choosing them. However, a summary of the methods and tools used is given here. The overarching approach taken has been qualitative research methods but some of the data analysis has also involved using quantitative methods. There are three reasons which have informed the decision to use a broadly qualitative approach. First, the concept of value is subjective and thus a qualitative approach is more suited to questions framed in this way, particularly in terms of exploring individuals (in this case pupils') experiences. It is for this reason also that I have used the first person throughout this thesis and in doing so my intention is to reinforce my subjective analysis of the data. Second, the limited nature of previous research into archaeological education means that there is not enough data to construct a hypothesis to be tested and thus the exploratory thrust of the qualitative research is suited to this sort of basic research. Third, I have been influenced by post-processualist theories, particularly in terms of the rejection of the positivist paradigm and thus a qualitative approach is consistent with this position. More detail on the methodological approach chosen and the justification for the choice can be found in section 5.3.

As in any major piece of research the first step was to conduct a literature review to understand the context for the research both in archaeological and educational terms. The results of the literature review provided an insight into how little dedicated research there has been about archaeological education, but the scope of the literature review was broad so that information about relevant educational practice and theory as well as the practice and theory relating to archaeological education was found. Selected literature about the wider field of engagement in terms of related sub-disciplines (e.g. museums learning and education and community archaeology) was also examined. Information from the literature review was used to construct the contextual chapters of this thesis (Chapters 2, 3 and 4). However, the discussion and analysis in these chapters goes beyond an account of existing literature and instead brings together and debates a number of different ideas in such a way that begins to address some of the issues and objectives associated with the Research Questions.

The focus on pupil experience is key within this thesis and thus the experiences of 325 pupils have been explored through working with five archaeological organisations whose educational offers were selected since they were indicative of the diversity of archaeological education programmes. In order to make the selection I created a typology of archaeological education programmes using understanding derived from the literature review and populated the typology with information gathered through a questionnaire survey.

Each of these organisations contacted schools who were booked in with them to secure their support to take part in the research on my behalf. In

total 12 visiting school parties across the five organisations agreed to take part in the study. I observed the pupils while they took part in the various archaeological education programmes and also gathered two different forms of written evidence from them through a divergent thinking assessment and a generic learning outcome assessment. The data was analysed using memoing and coding and structured against a framework of theories. This coding process enabled the results to be ordered and recombined to identify different trends and observations. The process and rationale for this data collection and analysis is described more fully in Chapter 5.

1.5 Chapter plan

This thesis has been organised into two volumes. The first volume contains seven chapters (this chapter and a further six chapters) and the bibliography. The appendices can be found in the second volume. The content of some of the chapters has already been mentioned, but it is worth explicitly outlining the contents of each chapter in the following paragraphs for easy reference.

Chapters 2-4 set out the context for archaeological education. For clarity the context has been split into three, the practical context, the theoretical context and the political context, although in reality these three contexts are interwoven. The practical context is set out in Chapter 2 and includes key definitions, a discussion about the relevant legislation and outlines the range of approaches to archaeological education revealed through an examination of the literature. Chapter 3 focuses on an exposition and analysis of theoretical understanding of archaeological education drawn from the literature. This understanding enabled a framework to be

constructed which was used to analyse the theoretical basis of the programmes documented in Chapter 6. Chapter 4 is concerned with the political context for archaeological education, which includes a brief consideration the political nature of both archaeology and education. It also includes an analysis and critique of archaeological engagement in general in terms of power relations.

The methods and research tools and the rationale for choosing them have been described in Chapter 5. This includes outlining the methodological approach and explaining why this approach was chosen. The research design has also been described.

The archaeology education typology developed in Chapter 5 is populated in Chapter 6 and from this the archaeological education programmes of five organisations are selected as case studies. The results from the investigation of these case studies is also described and analysed in this chapter.

Chapter 7 draws together the findings from the research described in Chapter 6 and the contextual awareness established in earlier chapters in order to specifically address the Research Questions. This final chapter also gives explicit consideration to the unique contribution to knowledge of this research and also its implications for future researchers, teachers, pupils and other archaeologists.

1.6 Summary

Thus this thesis describes original and exploratory research about archaeological education, in particular in understanding the theoretical basis

for archaeological education and its value for pupils. Given the wider debates about archaeological engagement, which are developed later in this thesis, the influence of theory and the nature of value are seen as inextricably linked and this idea underpins and has influenced the research described and discussed here. It also informs my perception of the need for this research: archaeological education in general is poorly understood and its theoretical basis is even less well understood, despite this, a number of authors have made a number of claims for it and specifically referred to its potential to empower pupils, which is in turn linked to a particular theoretical standpoint, yet these ideas have not been adequately explored before.

I maintain that one of the reasons that archaeological education is under-researched and poorly understood is that it has been conflated, confused or subsumed within other forms of archaeological public engagement, but this negates the role the very specific educational context for archaeological education. Archaeological education is manifestly distinct from public archaeology and community archaeology, extra-mural and informal learning about archaeology and from museums learning. This idea will be developed throughout this thesis and establish the importance of archaeological education in its own right.

A literature review helped identify the contexts for archaeological education, but was not limited to texts just about the subject of archaeology. Given the dearth of research into archaeological education a tightly focussed literature review would have been very limited. Instead the research net was cast widely and through this broad examination of literature which focussed

on the ideas of how theory is related to value, a synthesis of ideas from the wider field of archaeological public engagement has been brought together to create a new understanding for archaeological education. This understanding is developed and explored through the analysis of the experiences of pupils engaging in the archaeological education programmes of five different organisations. However, it is now appropriate to set out the understanding developed from the literature in the following three chapters.

Chapter 2

Archaeological Education in Practice

2.1 Introduction

In the previous chapter I introduced the research problem by discussing the lack of understanding about archaeological education. However, that is not to say that nothing has been written about archaeological education and so in order to properly understand the subject being dealt with I carried out a literature review. Using the understanding derived from that I have established the practical context for archaeological which is set out in this chapter.

In the first instance what exactly is meant by the term ‘archaeological education’ throughout this thesis has been defined by expanding and clarifying the definition initially presented in previous chapter. This has also involved defining a number of other key terms, namely archaeology and education, in terms of their relevance to this thesis. Also given the overlap between archaeological education and other areas of archaeological engagement, alluded to in the introductory chapter, it is pertinent to consider what separates archaeological education from other forms of public engagement. The notion that archaeological education is a distinct sub-discipline of archaeological engagement was at first mooted in preceding chapter but this is developed more fully here.

Having defined the terms the practical constraints for archaeological education are discussed. This discussion includes an overview of the relevant legislation pertaining to both archaeology and education and an analysis of the barriers and opportunities this creates for archaeological education. This discussion takes place at a time of great change in terms of planning regulations and educational reform and therefore although the research from the case-studies discussed later in this thesis was carried out prior to the changes which are currently taking place I felt it was important to situate the findings within an up to date practical context. However, it should be stressed that given the rapid pace of change the context can only be considered current at the time of writing.

The exposition of the legislative context here paves the way for the analysis of the theoretical and political contexts for archaeological education which appear respectively in Chapters 3 and 4. All three chapters together provide the whole context for the Research Questions and inform the frameworks for analysing the results from the case studies presented in Chapter 6. Specifically, the practical approaches to archaeological education as discussed by other authors have been described here and these informed the construction of the archaeological education typology set out in the research methods chapter (see Chapter 5, Figure 3).

Finally, but crucially, this chapter contains a discussion of the value of archaeological education. Research Question 2 is framed towards looking at the value archaeological education for pupils and thus the idea of value is explored here. Value is a theme which runs through this thesis and the

discussion in this chapter paves the way for further analysis later in this thesis.

2.2 Definitions

Having briefly defined archaeological education in Chapter 1 it is important to clarify and expand this definition and to establish and define the other key terms. There are three key terms which must be defined: archaeology, education and archaeological education. The origins and development of archaeological education and its relationship to (and difference from) other related public engagement sub-disciplines are set out. Other authors have used the same terms to mean slightly different things, which is why it is particularly important to set out the definition applied throughout this thesis. It is also necessary to consider archaeological engagement in informal contexts and to define what I mean by value.

Archaeology

A broad view of archaeology in terms of its material and tangible manifestations has been adopted and follows Corbishley (2011, 6) in that the definition includes the study of landscapes, sites and monuments as well as artefacts. In short the definition of archaeology applied throughout this thesis includes any material culture shaped and influenced by humankind and this extends to landscapes and natural features which have been used or

adapted by humans. However, these tangible manifestations do not the limit of the definition of archaeology. For example, Smith (2006, 305) asserts that artefacts and sites are not inherently significant, but rather that significance and value are constructed and negotiated by people and their emotional responses to those things. This idea is supported by Merriman's (1998, 20) definition of archaeology ". . .as a set of ideologies and practices which explore the relationship between past and present societies through their material evidence". This view frames archaeology as vehicle for discourse where it is not so much about the study of the past, but a platform by which contemporary society and power relations can be examined (Smith 2006). Merriman (1998, 20) goes on to argue that using this definition of archaeology involves both accepting multiple interpretations and accepting that those interpretations change to reflect the influences and concerns of those who construct those interpretations. This definition of archaeology draws upon a post-processualist tradition. The relevance of post-processualist ideas to this study are discussed further in section 3.2 (see p. 114), but the reason for mentioning the idea at this point is to highlight the contemporary nature of archaeology. In short, if the view is taken that archaeology includes intangible heritage and is constructed in the present, then there is no boundary between now and the past, no date after which material is not reasonably the subject of archaeological discourse and analysis: archaeology is made in the present and can refer to material culture and landscapes mediated through human experience from any time from the distant past right up until now.

It is worth noting that Smith has adopted the use of the term heritage to encompass this wider philosophical definition. Jameson and Baugher (2008, 7) also refer to the value of the term heritage in encompassing landscape, natural resources and the environment and go on to add that others have also used the term cultural heritage. The term historic environment has also been used by some (e.g. Southport Group 2011). The value and use of these alternatives is recognised here and discussions which use all of the terms have been considered relevant, although the term archaeology will be retained, because this is consistent with most of the authors who have discussed archaeological education.

Given this broad definition of archaeology, it can be difficult to pin down exactly what it is: archaeological practice is guided by a specific set of methods, but many of these have been borrowed from other subjects, such as environmental science, geography and chemistry, and archaeological theory draws heavily upon other disciplines, such as sociology and linguistics. Therefore, it is perhaps easier to consider what is not archaeology, for example, Davis (2005, 15) makes a distinction between history and archaeology, i.e. if archaeology is the study of the past through material culture, then history is the study of the past through the written word. This is an important distinction, since not only is the evidence that historians and archaeologists examine different, but the methods used to analyse these different forms of evidence is also different.

However, further consideration casts some doubt on the usefulness of Davis' definition. Some archaeologists consider themselves to be historical archaeologists (e.g. Jeppson 2012) and this does not just mean that they are

primarily concerned with historical periods, but that they also make use of historical texts and share some methods of analysis with historians.

However, there is still an implied primacy in the use of artefactual evidence and other material culture within historical archaeology. Yet, this does not necessarily end the debate about what archaeology is. Henson (2004a, 29) warns against a focus on material culture, in saying that “. . .it is the perceived domination of archaeology by artefacts and sites which serves to hide the wider behavioural and environmental concerns of the discipline”.

Henson (2004a, 28-29) is clear that the potential to study behavioural patterns and environmental concerns (including issues around sustainability) is an important aspect of archaeology and one which places archaeology as socially relevant. He goes on to assert that without the ability to use archaeology to learn **from** the past then all the discipline becomes useful for is learning **about** the past, which is a criticism he also has of history (Henson 2004a, 28-29). In Henson's view, archaeology has the ability to provide more than just a narrative of the past and that it can be used to look at issues on a macro scale and apply lessons from the past to the present. The overlap between history and archaeology and Henson's claims that archaeology can be used to study sociological and geographical issues within the framework of the past does not limit the view of archaeology, but at least clarifies its potential.

Therefore, throughout this thesis a broad view of archaeology has been applied which includes sites and landscapes and encompasses an even broader conceptual view following Merriman (1998, 20) and Smith (2006). This view frames archaeology as a socially relevant discipline as

Henson (2004a, 28-29) does, but goes further: archaeology is not just useful for learning lessons from the past. It is in fact very much about the present.

Education

It is important to define education, since a brief examination of the literature indicates that different authors and thinkers define education differently (Matheson, D. 2008, 1). For example, Hopper-Greenhill (2007, 3) has said that the definition of education is culturally determined, Furedi (2009, 32) described education as a transaction between generations and Bartlett and Burton (2009, 13 [2007]) put forward the view that education involves developing a greater understanding without coercion. Bartlett and Burton (2009, 13 [2007]) also suggest that people draw upon their own experiences of education when defining it and therefore it is no surprise that many people associate education with formal compulsory schooling (Matheson, D. 2008, 1), given that for most people their first memorable experience of education occurs when they attend school as a child.

Of particular relevance to this thesis is the debate regarding education in museums, given that many museums are responsible for the public presentation and interpretation of archaeological collections. Within museums the nature of education has been debated for well over a century (Hein, 1998, 3; Hooper-Greenhill 2007, 5-7; Roberts 1997), but relatively recently there has been a semantic general shift from the term education to learning (Hooper-Greenhill 2007, 4). This change in terminology is subtle but indicates a change of philosophy from a process whereby knowledge is

imparted to passive subjects (education) to an active process where the subject is engaged and motivated (learning) (Hein 1998, 6). Other authors within the world of museums have also made a distinction between formal and informal learning (Hein 1998, 7; Moffat and Woollard 1999, 176- 177). Hein states that the curriculum and setting are crucial in determining whether or not learning is formal or not and therefore, much if not all, learning in museums is informal (Hein 1998, 7). Yet, Allon (1999, 79) disputes this and argues that the framework of the classroom still determines much museum learning and therefore it should still be considered to be formal education.

It is clear that the definition of education is subjective and that different authors have understood the term in different ways and within museums, the discussion of the nature of education has not resulted in consensus: instead it is at the heart of a thriving and stimulating debate. This suggests that definition of education is far from static. Therefore, in terms of archaeological education it is not possible to merely extrapolate a definition from museums. Instead it is necessary to engage with the debate and create a logical argument for the definition of education used.

Bartoy (2012, 564) used the term education with reference to archaeology broadly, and considers all public archaeology to be educational and thus archaeological education. In essence this broad definition can be used to simultaneously frame archaeological education as both self-directed and taught or both aimed at school pupils in a classroom and adults taking extra-mural classes. However, it is my contention that such a broad definition is problematic. Informal learners and formal learners are motivated differently (i.e. self-directed verses compelled) and the motivation for learning is likely to

affect its outcome. Similarly, the context for learning (self-initiated or determined by a curriculum) can also affect the outcome of learning and finally, adults and children learn in different ways. In particular, state funded formal compulsory education is constrained and indeed directed, not just by educational ideology, but also by political ideology. In fact education within these terms has been used as a political tool (see p. 183); informal and self-directed learning are not necessarily constrained and directed in the same way and thus a broad definition of education is not useful in understanding the nuanced differences between the different drivers for educational involvement.

Furthermore, it is my premise that this broad definition is symptomatic of the poor understanding of archaeological education: there has not been enough dedicated research which discusses the distinctions and differences of archaeological engagement in these different learning settings. I recognise that there are some shared features between different forms of public engagement (see below) and therefore different authors often draw upon the wider field to make sense of their ideas (which also occurs in this thesis). However, I also assert that it is particularly important to be specific about the definition of education applied here in order to help clarify what archaeological education is within a specific formal compulsory education context.

Archaeological Education

A working definition of archaeological education is necessary in order to clarify what is being investigated through the Research Questions. In some

senses the entirety of this chapter and the following two chapters define archaeological education by setting out its context in practical, theoretical and political terms. Obviously the definitions of archaeology and education above shape the definition of archaeological education and thus the broad definition of archaeology has been implied within the term archaeological education. This therefore includes some museum education (where archaeological collections and data are considered) and education at historic houses and sites. However, what I specifically aim to do in this section is to present an outline of its origins and development.

An examination of the literature promptly reveals that archaeological education has a long history (Bartoy 2012, 552; Corbishley 2011, 82-83; Kehoe 2012, 538). It can be argued that antiquarian pursuits which are the forerunner to archaeological practice were often educational, since they were often pursued by local societies with educational missions. Similarly, many museums which were founded during the nineteenth century were often established by the same antiquarian societies, with overtly educational missions (Hein 1998, 3; Hooper-Greenhill 2007, 5-7). This educational focus was often characterised by the presence of labels and interpretation (Roberts 1997) and in fact since many people first encountered archaeology in museums (Moyer 2007, 263; Stone 1994a, 20; Stone 1997, 28) educational efforts in museums can be considered within the umbrella of archaeological engagement. The term archaeological engagement has been consciously used here, as opposed to archaeological education, since as stated above the definition of education used in this thesis relates to formal compulsory schooling and although the educational developments in nineteenth century

museums ran parallel to the establishment of state funded education and could be argued to be part of the same ideological movement, educational initiatives in these museums was generally aligned towards voluntary learning. Kehoe (2012, 539) summarises the position in the following way:

Archaeology was public archaeology because no one was a professional archaeologist in the nineteenth century. It was public education because the bourgeois public valued education, justifying leisure activities by their educational effects.

By the beginning of the early twentieth century a handful of museums began to offer learning services specifically for schools (Keating 2011, 10) and where these covered archaeological topics a correlation between early museums learning and archaeological education can be seen. However, an alternative perspective situates the origin of archaeological education in the mid-twentieth century: the provision of formal museum learning services took off in this period, and some museums were even used as part time schools during the Second World War (Keating 2011, 11-12). This situation is mirrored within archaeology in general as Corbishley (2011, 82-83) and Corbishley and Stone (1994) document a series of debates and discussion throughout the early and mid-twentieth century about archaeologists' engagement with education. An example of the sort of debate that Corbishley and Stone refer to can be found in Fox's (1944) discussion the place of archaeology in children and young people's schooling from the 1940s. Similarly, Kehoe (2012, 541-542) suggests that the excavations at Jamestown in Virginia in the 1930s can be considered to be the first public archaeology project in the USA and goes on to argue that in fact archaeology as part of formal education began at historical sites.

What this account demonstrates is that archaeology has had an educational role for a significant length of time, yet the origins of archaeological education, as it is specifically referred to throughout this thesis are more difficult to pin down and this is partly due to the fact that often the idea of education is broad and the discussion which specifically relates to archaeology and formal education is limited. However, in the UK archaeologists were certainly considering how they could work with schools in the 1980s (Corbishley and Stone, 1994; Planel 1990) and as Kehoe (2012, 548) notes research from 1990 revealed a wide number of initiatives had been developed which targeted formal curricula of school pupils in the USA.

It is my position that this ongoing coalition of formal and informal learning in the literature about archaeological education contributes to the poor understanding of the area for two reasons. First, because the drivers and context for formal and informal learning different, this leads to inherently different types of experience. Second, collectively authors have not given sufficient consideration to the alternative contexts and the impact of these on the outcomes, because the discussion tends to straddles both formal and informal learning.

Also as Hein (1998, 4) points out, previously the understanding of learning within schools and accountability systems for measuring learning developed, whereas museums were left behind and there was merely an assumption that learning took place. I argue that these assumptions have been extended to archaeological education where there has been even less targeted consideration regarding learning (Bartoy 2012, 558). This is demonstrated by the fact that dedicated research about archaeological

education is scarce, for example, in Corbishley's 2011 book, which specifically outlines, describes and analyses archaeological education, he notes that his work is the first on the subject since 2004. This is not true of the wider field of archaeological engagement. For example the dearth of research specifically targeted towards archaeological education can be contrasted with amount of research about community archaeology which saw nine dedicated books published on the subject within the same time period mentioned by Corbishley.

This lack of understanding of archaeological education is highlighted by Högberg who said, "There is a great deal of variation in what kind of activities take place, how and why they are conducted" (2007, 29). Corbishley (2011, 104) also expresses a similar view when he considers that 'education' is sometimes referred to as a convenient term which covers a wide range of outreach initiatives and in fact in his book about archaeological education he includes community archaeology and informal learning programmes. This, therefore is a key issue for this research, specifically, that archaeological education is separate and unique from other forms of public engagement, but has been submerged within a broader umbrella. It is no wonder that the theoretical basis for archaeological education is poorly understood, given this lack of clarity over its definition. Thus, in order to fully appreciate this issue the difference between archaeological education and other forms of public engagement must be highlighted and therefore this has been considered in the following sections. The other terms to be defined are public archaeology, community archaeology, and museum education/learning.

Public Archaeology

Merriman (1998, 20) argues that public archaeology should be a community based discipline, but that actually McGimsey's 1972 definition of public archaeology actually relates to cultural resource management (CRM) and therefore is essentially about archaeological legislation. Archaeological legislation such as the *Town and Country Planning Act 1990* (TCPA) and the *Treasure Act 1996* have an impact upon communities and individuals who are not archaeologists, but communities and individuals are not necessarily enlightened about or from archaeology as a direct result of this legislation and certainly the impact upon school aged pupils is negligible (notwithstanding their potential exclusion from participating in archaeology). However, Merriman's (1998, 20) pluralistic ideas about public archaeology mentioned previously (see p. 44 above) could be interpreted as a convenient umbrella term which would include, but not be limited to, archaeological education. This definition of public archaeology is also developed by Watkins (2012, 663). One particular problem with this view of public archaeology is that in skewing the definition away from legislation there is no longer a convenient term to describe this branch of archaeology.

Moshenska (2010) presents an idea which can be seen as a resolution to the problem stated above by defining public archaeology as something concerned both with policy and individual and community experiences of archaeology. He does this by stating that public archaeology is chiefly concerned with the consumption of archaeological commodities and categorises these commodities into five types which span both legislative

and professional archaeological concerns and more general public interests. This suggests that ideas about public archaeology can be as fluid as those about archaeological education, but that crucially there is a link between public archaeology and archaeological policy frameworks.

There is another link between public archaeology and archaeological education which should be mentioned and this relates to the motivation for public engagement. Ostensibly, public archaeology as CRM is concerned with the protection and preservation of the archaeological record and educational programmes are seen as a key tactic in achieving this aim (Jameson and Baugher 2008, 7); the argument follows that educational programmes can be effective in delivering messages about preservation and thus furthering the aims of CRM. This essentially encapsulates the deficit model for archaeological education. Bartoy (2012, 556-558) however, has disputed that this is truly archaeological education and has instead defined this as learning **about** or **from** archaeology, claiming that archaeological education should involve learning **through** archaeology instead.

Community Archaeology

The conflation and confusion of public engagement terminology is highlighted by Hirst (2010) who states that public archaeology in the USA is actually the same as community archaeology in the UK. He goes on to describe community archaeology as the presentation of archaeological data to the public. Another definition of community archaeology is the pursuit of archaeological fieldwork carried out by

community groups (e.g. Russel 1998). Community archaeology (as described by Russel) has had significant currency in recent years and there are a multitude of good examples of community archaeology projects to draw upon. One particularly well known example is that of the Leicestershire community archaeology project whereby members of the public are encouraged to carry out fieldwork projects with the support of professional archaeologists (Leicestershire County Council 2010; Liddle 1987).

It is entirely possible to carry out community archaeology projects with school groups (e.g. Paz 2012), who can be described as a type of community and certainly Jameson and Baugher (2008, 4-5) take an all encompassing view of communities and would consider schools as communities. However, I would argue that just as combining informal and formal education can contribute to a poor appreciation of the specific and relevant audience context, so too can adopting an all embracing definition of communities. In reality often the communities who are targeted by community archaeology projects come from a specific geographical locality and although they may be cohesive they are characterised by more variability in their make-up than school pupils: usually pupils are organised within groups of children of similar ages, whereas the age profiles of other communities is likely to be more varied, additionally, although within society we all follow the a set of rules and codes, rules and codes of conduct frame school communities even more sharply. It may be that these distinctions are unimportant, but whilst there is a dearth of dedicated

research the impact of these differences is unknown and therefore ought to be considered.

There is however undisputable common ground between archaeological education and community archaeology in terms of the aims that archaeologists hope to achieve through them. It is possible for community archaeology projects to be linked to the delivery of archaeological messages as described above in relation to public archaeology, but it is also not uncommon for community archaeology projects to be linked to a desire for archaeology to be more inclusive and socially responsible. This aim is linked to the multiple perspectives model for engagement and is more consistent with Bartoy's (2012) idea of learning through archaeology as opposed to just about archaeology. However, a key difference between the two fields is that community archaeology often refers to fieldwork (particularly in terms of Russel's definition) and other research projects, whereas as will be demonstrated later in this chapter (see p. 83) the range of approaches to archaeological education are wider in their scope.

Museum Education/Learning

Museums are almost universally organised around the curation of collections and are involved in the interpretation of those collections. Therefore, in terms of the artefactual element of the definition of archaeology (and in some cases in terms of oral tradition and memory) there may be an overlap between the work of museum professionals

and archaeologists. Therefore, museum learning programmes which make use of archaeological material can also be considered to be archaeological education, but is not the limit of archaeological education. That is, working with material culture is only one aspect of archaeology as described above (see p. 43). Archaeology also pertains to the process of investigating the archaeological record and to understanding the natural environment and landscape: archaeological study can occur in its natural context, which is always removed and reconstructed within a museum setting.

It is true that some museums do describe, explain, and even demonstrate archaeological methods to their audiences through interpretation, but this is not the same as actually providing opportunities to get involved in real archaeological investigation. A demonstration or interactive exhibit can effectively demonstrate archaeological process, but it does not enable users to experience what it is like to make a genuine discovery and in staging the activity it has ultimately been prescribed by museum archaeologists rather than truly sharing the authority for the work with the public. It is also the case that some museums have archaeological units attached to them (notably MoLAS at the Museum of London), but these units are separate arms of the business and as Schadla-Hall (1998, 51) notes are quite rare. Therefore, unlike museum learning, archaeological education has the potential to be directly associated with investigating the archaeological record and gathering archaeological data.

Furthermore, Davis (2005, 13) has argued the authoritative voice of historians and curators have been invisible in the narrative of the past, presented to the public in museum interpretation, thereby presenting a falsely objective account. Davis continues by claiming that archaeologists do not fall into this trap and tend to be more open about acknowledging their authorship. This view is open to challenge from two directions. First, it could be argued museums have made great strides in acknowledging the subjectivity of its narrative and trying to include other 'voices' (e.g. Golding 1999) and that archaeology is in fact also susceptible to the charge of false objectivity (e.g. Shanks and Tilley 1987, 3). However, perhaps the very fact that Davis has made this claim indicates that, at the very least, she considers there to be a difference between archaeological education and museum education.

It is worth qualifying why the terms museum education and museum learning has been used interchangeably here as this could appear to be confused, but is in fact deliberate. As noted previously (see p. 47 above) there has been a shift in terminology from the use of the term museum education to museum learning, based around the idea that education in a museum context is always less formal than in a school setting and that the term embodies a softer, more collaborative child centred approach (Hooper-Greenhill 2007, 4). Within this terminology there is no implicit distinction made between museum learning and education directed towards a formal school based audience and self-directed informal learning. However,

throughout this thesis education has been used very specifically to refer to programmes and resources targeted towards formal compulsory education. Therefore, the inconsistency in the use of the term when discussing museums is intended to convey that the definition of education and learning in discussing museums is different and gives less importance to the difference between formal and informal learning.

In summary there is an overlap between museum education and archaeological education, but there are two clear differences between the fields: first that in being linked to museum collections, museum learning covers a range of other subject areas (such as science, rural life, history, social history, geology and geography) and second that archaeological education is not tied to material culture and is about data collection as well as interpretation.

Lifelong Learning/Informal Learning

As the definition of archaeological education used in this thesis is focussed on formal education it makes sense to identify what lifelong learning and informal learning is so that the differences can be clarified.

Many adults choose to take courses in archaeology as extra-mural studies as evidenced by a number of continuing education programmes in archaeology (e.g. The University of Oxford 2012; The University of Bristol 2012; The University of Cambridge, 2011). Adults

who choose to take these courses can be considered to be engaged in lifelong learning, which means continuing education after compulsory schooling has finished.

Anyone enrolling in an extra-mural archaeology course will follow a curriculum and be formally educated about archaeology, but this is not the same as archaeological education as understood here. The reason this is different is because adults who undertake such courses have chosen to do so and they are able to freely choose a course that suits their interests and meets their needs and crucially they can also choose to disengage at any point. This is not true of school pupils: their ability to choose what to study is at best limited and usually non-existent since they are bound to follow an imposed curriculum and thus any decision to integrate archaeology into their studies is made those who create the curriculum and possibly by the teacher. This creates a very different context and thus a distinction has been made here. Therefore, it may be appropriate to develop a different term. Bartoy (2012) considers educational engagement of this kind to be learning about archaeology, but he also acknowledges that this can occur in school contexts, so perhaps this could alternatively be termed archaeological learning. The use of the term 'learning' here is slightly different than that described for museums, but encompasses the same ideas of choice in the process.

The debate over whether curriculum linked educational programmes outside of the classroom are inherently formal or informal has been discussed within museums and should be outlined. Some authors have argued that learning in museums is always informal (Falk and Dierking 2000,

138; Hein 1998, 3) merely because it occurs away from the traditional classroom setting, but also often because it is linked to different pedagogical strategies. However, as Allon (1999, 79) argues that since museum learning in this mode is usually linked to a defined curriculum and decision to visit is made by the teacher who accompanies the class who applies the rules and frameworks of the classroom, then the learning experience is still essentially formal. The reason for referring to this debate is not to extend it to archaeological education, but to explain why overtly informal learning programmes have not been included within the definition for archaeological education. Specifically, here it is not whether the outcome of the programme can be categorised as formal or informal learning, but what the intention of the audience was. In this respect Allon's comments are relevant since a definition of education has been adopted which pertains to a formal and compulsory educational context. Crucially, archaeological engagement explicitly targeted towards informal learning has not been included here, since a formal compulsory context is significant to this study.

Having drawn this distinction there are some excellent examples of archaeology being used to deliver informal learning programmes which are worth mentioning and one of the best examples is of the Council for British Archaeology's (CBA) Young Archaeologist Club (YAC). The club provides children and young people with opportunities to learn about archaeology away from formal school studies (Corbishley 2011, 106-108). YAC members learn about archaeology because they want to and not because they are working towards particular attainment targets or for examinations. In stating this another key difference between archaeological education and general

learning about archaeology is highlighted, i.e. archaeological education is associated with learning which is directed towards a predetermined progression instead of learning for its own sake.

Value

Having defined the different terms used throughout this thesis it is also important to discuss the nature of value since it is a crucial concept with the Research Questions, particularly Research Question 2. The concept of value is important for archaeologists, particularly in terms of what elements of the historic environment should be conserved and how this should be done. Jameson and Baugher (2008, 7) assert that value is what defines what is important to people about the past and is what bridges tangible and intangible heritage. If Jameson and Baugher's position is accepted, it is clear to see why discussions about value are often also central to discussions regarding public engagement in terms of stewardship and conservation: archaeologists will undoubtedly argue for the conservation and preservation of artefacts and sites which are ascribed heritage values, and may seek to limit public access to these cultural resources and use public interpretation to justify this, whilst at the same time, such action may interrupt and interfere with the acts which develop and maintain that value. Thus, to acknowledge heritage value is actually to acknowledge a range of values (Versaggi 2008, 203).

What this highlights is that the notion of value is multifarious, complex and in some cases contentious. Value is particularly contentious where there is a power struggle and this can be seen in indigenous archaeology (Smith 2006, 28) where native peoples have clashed with archaeologists (Watkins 2012), but it can also be seen in terms of nationalistic narratives. For example, in the 2007 revisions of the National Curriculum the study of black history in schools was focussed around the slave trade and its relationship to the British Empire, but this has been criticised for perpetuating negative stereotypes (Sheldon 2011, 41). This example can be framed as a clash of the values of those who see the national context of history as important (and claim these efforts promote diversity) and those who would see the move as further reinforcement of underlying messages about power.

Viewed in these terms the link between the discussion of value within archaeology and social values (Little 2012, 396) and social control (Smith 2006) can be seen, and as the consideration of black history within the curriculum mentioned above shows, thinking about archaeological value is relevant to the general understanding archaeological education as well as Research Question 2.

However, archaeological education may have other values for pupils (Versaggi 2008, 203) in addition to social ones. On a basic level teachers may value archaeological education in terms of its ability to deliver aspects of the curriculum (Henson 2004a; Jeppson and Brauer 2008, 231-233) and pupils may also value this too, particularly if working with archaeological material is more engaging than usual history studies (Stone 2004,4). Thus, whether or not archaeological education provides a good educational

experience is relevant. Additionally, the idea that archaeological education is engaging relates to another idea of value to be discussed and that is simply that pupils may value archaeological education because it is enjoyable and presents an opportunity to have fun (Bartoy 2012, 554).

Thus the notion of value is complicated and personal and this can mean that different values collide and oppose each other. In terms of the consideration of value for pupils as set out in Research Question 2 this involves both the appreciation of how pupils might benefit by engaging with archaeological education (e.g. by it providing a good educational model and an empowering experience) and how they value it directly (through enjoyment). It is also possible to look at value on a much more basic level in terms of the development of specific skills.

2.3 Context and constraints

Having defined the key terms for this thesis, the next step is to outline the practical constraints archaeological education operates within. This involves setting out the key legislation for archaeology and education and analysing how those legislative frameworks create barriers to and opportunities for archaeological education. This includes a discussion of the funding arrangements and delivery mechanisms for archaeological education. This context therefore, frames the investigation of the Research Questions. For clarity it has been useful to consider the archaeological context and the educational context separately.

Archaeological context

The roots of archaeological practice in the UK can be traced back to the early nineteenth century and at this time was largely pursued by amateurs (Holgate 1991, 37 -38; Merriman 1998, 21). However, archaeological investigation, and in particular, excavation increasingly became linked with the planning and development process and a professional workforce began to take over (Holgate 1991, 37 -38; Merriman 1998, 21; Russel 1998, 48; Schadla-Hall 1998, 51). This shift from academic and amateur involvement to a professional workforce began in the 1970s, but was consolidated and accelerated planning policy and law in 1990 with the introduction of the *Town and Country Planning Act 1990* (TCPA). A number of guidance notes were issued to accompany the Act and in particular *Planning Policy Guidance Note 16* (PPG16) had a significant impact upon archaeological practice.

PPG16 embedded the 'polluter pays' principle within archaeological practice (Start 1999, 51-52) meaning that since 1990 developers have been required to pay for sites to be evaluated for archaeological remains and if necessary excavated, heralding the need for a professional archaeological workforce. Aitcheson and Edwards' (2008, 12) survey into the archaeological workforce showed that by 2008 over 50 per cent of the archaeological workforce were funded by developers. Given that PPG16 made no requirement for developers to pay for public involvement in archaeology such initiatives often face financial difficulties (Merriman 1998, 23).

Furthermore, Aitcheson and Edwards (2008, 70) showed that only around five per cent of archaeologists provided museum and other visitor

services and that only 42 posts out of 2733 related to education and outreach. Where outreach and education posts did exist they were mainly found within national or local government organisations (Aitcheson and Edwards 2008, 70), and not in contracting archaeological units who are responsible for a large share of archaeological fieldwork. It can be concluded that the introduction of PPG16 has both divorced many practicing field archaeologists from delivering archaeological education and served to exclude the public (including school children) from archaeological fieldwork.

PPG16 was replaced by the new English Planning Policy Statement 5 (PPS5) in 2010 (Southport Group 2011, 3). PPS5 sets out an ambitious vision which allegedly puts public involvement at the centre of planning focused archaeological practice (Southport Group 2011, 3). The Southport Group (a group of archaeologists who formed a working party to examine the implications of PPS5) met to discuss the implications of PPS5 and published further recommendations for its implementation in 2011. According to the Southport Group (2011, 3) PPS5 sets out the framework for the future management of the historic environment as a partnership between local authorities and communities in which interpretation is as important as recording. They explain that PPS5 can be seen to be part of a Government driven localism agenda and the move to devolve power to communities (Southport Group 2011, 8). The group recognises some of the barriers to public involvement that exist under the old framework: specifically the additional costs of public involvement, the fear that amateurs might not meet professional standards, health and safety concerns and insurance restrictions, the short notice and short duration of projects, and commercial

confidentiality issues (Southport Group 2011, 12). In fact confidentiality is an important issue and under PPG16 has resulted in some developers vetoing public involvement even when the other barriers were removed (Smith, P. 2004, 170). The Southport Group (2011, 6-7, 17) assert that the Government value the role that archaeology can play in shaping identity and place and have identified that the historic environment is a valuable resource economically culturally and educationally. The Southport Group (2011, 11) also argue that archaeologists have also demonstrated a commitment to public involvement which is illustrated by the fact that greater public involvement is a core aim of the Institute for Archaeologists (IfA) and a key charitable purpose of many commercial archaeological units. In putting forward these arguments they reason that just as PPG16 crystallised the move to a professional workforce, PPS5 will crystallise the move to greater public involvement which is already taking place.

However, the true impact of PPS5 remains to be seen and a closer reading of the Southport Group's report throws doubt on the ambitious vision for greater public involvement. First, the Group state that a key principle of PPS5 is an emphasis on the expert and the primacy of professional standards which must be taken seriously (Southport Group, 2011, 6-7). Given that the professionalisation of archaeology was one of the reasons that public involvement was squeezed out of archaeology how can a greater emphasis on the expert be reconciled with greater public involvement? Furthermore, this emphasis on the expert situates archaeologists not merely as another stakeholder but as the party who have the **right** to set the agenda (Smith 2006, 51), the implication of this being that other 'voices' are

inherently inferior. Second, although the report mentions the importance of interpretation and recommends that archaeologists communicate their findings more effectively (Southport Group 2011, 3 and 17), recommendation 29 which puts forward the need for more skilled specialists (Southport Group 2011, 33) does not address the dearth of outreach and education specialists (as indicated by Aitcheson and Edwards' 2008 survey). Third, the Group clearly identify the barriers to public involvement in developer funded archaeology, but I argue that the only barrier that PPS5 really addresses is the fear that amateurs might not meet public standards and this is addressed by emphasising the role of the expert over the amateur (which is an issue in itself as discussed above). Confidentiality issues might be mitigated to some extent through a general move towards greater public involvement and developers may be required to pay for public involvement, but invariably confidentiality issues will still arise and less costly tenders that intend to do the minimum regarding public involvement are likely to look more attractive to developers; health and safety concerns and short time scales will remain issues. Therefore, although at face value PPS5 has been lauded as move in the direction of public involvement it is difficult to see this in reality whilst archaeological investigation is still dominated by developer funded work.

Aitcheson and Edwards' 2008 survey results indicated the marginal nature of education and outreach compared with planning-focussed archaeology, and although this may change to some extent with PPS5 it seems unlikely that the situation will change radically. As mentioned above PPS5 does not seem to really address the funding gap between the cost of public involvement and paying for it. Pearson (2001, 64) has commented on

the difficulty in finding funding to support educational staff within archaeological units. However, despite this some developer funded units have been able to deliver educational programmes and have employed education officers. This work tends to be funded through a complex web of grants and income derived from charges and entry fees (Chambers 1999, 151; Keen 1999, 229-230; Pearson 2001) or through the goodwill of staff who donate their free time (T. Schadla-Hall pers comm. 21st July 2010).

Schadla-Hall (1998, 51) has commented on the decline of archaeological units connected to museums (and thus also connected to bodies who have an explicitly educational purpose and staff dedicated to developing public interpretation). Schadla-Hall (1998, 51) cites PPG16 as one factor in this decline, but also blames cuts in local government funding. This highlights the general issue regarding the instability of funding derived from local government sources (Coles 1999, 155; Pearson 2004, 140) and is illustrated by an example given by Malim (2004). She noted that in Cambridge, the County Archaeological Officer was initially responsible for providing advice to the county planning authority **and** delivering archaeological education, but the funding for educational work was discontinued in 1997, although the funding for curatorial archaeology work remained (Malim 2004, 143-144).

The Trust for Wessex Archaeology (TWA) and the Canterbury Archaeological Trust (CAT) have developed extensive archaeological education programmes using in-house education staff. TWA appointed a community officer through a temporary contract in 1996 and made this post permanent in 1999 (Smith, P. 2004, 161). The Community Officer was

responsible for a wide range of educational work including (but not exclusively) work with schools. Opportunities for schools provided by TWA have included classroom based artefact handling sessions, visits to excavations and one-off bespoke projects developed in response to approaches from other organisations (such as English Heritage) (Smith, P. 2004, 162 – 167). CAT operates the 'Archaeology in Education Service' which was established in the late 1980s and funds an education officer to run the service with the co-operation of other CAT staff (CAT 2010). The 'Archaeology in Education Service' hosts a number of online resources and worksheets for school children, offers guidance for teachers and artefacts kits for schools to borrow (CAT 2010).

External grant making bodies, in particular the Heritage Lottery Fund (HLF), have been important funders of archaeological education in recent years. They have made grants available to developer funded units enabling them to deliver education work: on its website the HLF stated that they have funded over 1000 education posts and have granted over £1.5 billion to projects which encourage children and young people to learn about their heritage (HLF 2010). English Heritage (EH) has also been a significant funder of archaeological education programmes and resources, particularly through the Aggregates Levy Sustainability Fund (English Heritage 2006, 23). For example, the South Yorkshire Archaeology Service was able to develop an educational website with downloadable resources based on information from archaeological excavations due to funding from EH (English Heritage 2006, 23).

The benevolence of these grant making bodies has enabled many projects that would not otherwise have got off the ground to take place. However, short-term funding raises issues for the sustainable development of educational work (Chambers 1999, 151; Corbishley 2011, 104): stable funding for archaeological education is crucial in building and maintaining relationships with pupils and school teachers (Coles 1999, 148), but unfortunately due to the prevalence of short-term grants over core funding the goodwill and trust built up through projects is lost when the funding comes to an end.

Another barrier to delivering educational work is the lack of specialist staff with an educational remit or at the very least staff who have educational work as part of their official and core duties. This is related to a lack of funding for the work, but also a skills gap. Therefore, it is worth considering who the responsibility for educational work falls to. For example, the West Yorkshire Archaeological Service employs a specialist education officer (Weldrake 2004, 185). Equally it is also possible to find archaeologists without a specific remit for education and outreach involved in developing and delivering archaeological education. As Pearson (2001, 64) commented, “. . . educational responsibilities may be carried out by an existing member of staff alongside other work”, but in practice this is a relatively rare occurrence for two main reasons. In the first instance funding for this secondary role is often hard to find or retracted, as in Malim’s example from Cambridge (p. 70 above), or in the second instance as many practising archaeologists are simply too busy to disseminate their work to a wider public, instead focussing on academic reporting (Borman 1994, 186; Southport Group 2011, 17).

Therefore, archaeological education work is carried out by both specialist education staff and general archaeological staff, but it is common for specialist education officers who are not engaged in other archaeological activity to be responsible for educational work. This separation means that most archaeologists who deliver archaeological education are not themselves engaged in the process of investigating archaeology, effectively dividing educational work from the core business of archaeologists. This is very much a product of the introduction of PPG16 which created a workforce focussed on archaeology relating to development and planning (Southport Group 2011).

Given the close parallels between museums and archaeology and the overlap between museum education and archaeological education it is useful to consider the parallel situation in museums. Coles (1999, 153 – 154) has argued that the establishment of specific education roles is crucially important for museums and indeed a brief examination of the various websites which advertise museum jobs (e.g. museumjobs.com 2010 and the University of Leicester museums jobs desk 2010) demonstrates the relatively large number of educational posts within museums. However, a more detailed examination of the job descriptions reveals the temporary nature of many of these posts, and judging by the salaries they attract further indicates that these posts are neither senior nor strategic. This is contrary to Coles' (1999, 153-154) recommendation that education roles are not only crucial but should be held by senior staff, so that educational staff embed learning in decision making. In terms of this study it can be concluded that where museums hold archaeological collections any education staff they employ

will naturally be involved in archaeological education but often due to their status within the organisation (temporary or junior) their role is marginal. It could be argued that educational roles are complex and tend to be more focussed on delivery, but actually this highlights the very core of the problem. While the bulk of educational positions will naturally be focussed on delivery, as Coles (1999, 153-154) argues, in order for education to be taken seriously it needs to be positioned strategically and therefore education specialists should hold strategic positions in archaeological organisations. It is also true to say that museums are different sorts of organisations often with overtly educational missions, but having said this many contracting archaeological units also have overtly educational missions enshrined in their charitable status.

Universities have also been involved in delivering archaeological education. Corbishley and Stone (1994, 385) outlined two university led initiatives from the 1980s. First, the University of Sheffield supported an 'Archaeology and Education' project, which made archaeological resources available to schools and second, the University of Southampton also ran an 'Archaeology and Education' project between 1985 and 1988, which surveyed the teaching of archaeology and prehistory in schools and made resources available to them. Although Corbishley and Stone's examples come from the 1980s (and therefore before the introduction of PPG16 and the National Curriculum) it is fair to say that archaeology departments within universities have continued to play an important role in delivering archaeological education. For example, the University of Cambridge has developed a number of archaeological education programmes targeted

towards encouraging children and young people to consider further study in archaeology at the university (University of Cambridge, 2009). The programmes include finds based workshops for schools and field academies offering fieldwork opportunities to children and young people (University of Cambridge, 2009).

What emerges from this discussion is that archaeological education is 'fitted in' around other work. In general, it is not part a core part of day to day archaeological work defined by PPG16, and PPS5 only superficially seeks to address this. There are significant barriers to delivering educational work including funding issues and health and safety concerns (Merriman 1998, 23; Southport Group 2011,12), short-timescales for fieldwork (Merriman 1998, 23), lack of staff with time or expertise to deliver educational work (Pearson 2001) and physical access to sites (Corbishley, 2011, 104). Despite all these hindrances archaeological education is delivered and specialist staff do exist, but these represent exceptions to the rule and thus it is unsurprising that archaeological education is poorly understood: if archaeological education is marginalised in practice then it follows that it would also be marginalised theoretically and as a subject worthy of research, which explains the lack of research and poor understanding of the subject. Also, since archaeological education tends to be practised in a patchwork fashion, dependent on short term grants and as an add-on to core work, it becomes obvious that it would be shaped to fit around other work. Understanding this context begins to reveal the nature of archaeological education and thus its characteristics.

Educational context

As stated earlier (see p. 47) the framework of formal compulsory schooling provides the definition for education used throughout this thesis and thus it is this educational context which will be described here. The intention is to set out the practical educational context for archaeological education rather than to provide a detailed discussion and analysis of the development of a formal compulsory education system. This is relevant, since some archaeologists have failed to understand education and teachers needs and this has had a negative impact upon archaeological education (Davis 2005; Zimmerman *et al* 1994).

In outlining the educational context for archaeological education a very brief history of the development of state funded education will given, but the main focus of this section will be devoted to describing the main developments in compulsory education since the late 1970s as there was a major shift in education at this time which had a long lasting impact upon teaching and learning. Consideration will also be given to some very recent developments, the impact of which still remains to be seen.

The origins of state controlled education in England has its roots in the 19th century (Bartlett and Burton 2009, 59 [2007]; Gillard 2007a) and can be traced back to 1870 when *The Elementary Education Act 1870* (also known as the Forster Act) was passed (Martin 2008, 211). This act saw the state directly intervening in educational matters for the first time and can be viewed as a landmark step in establishing formal compulsory schooling in England (Martin 2008, 211-212). Crucially, in setting a precedent for

government intervention in education *The Elementary Education Act 1870* paved the way for ongoing educational legislation and reform and demonstrates a clear link between the development of educational policy and the prevailing political climate (also see p. 183). The development of education from the 1970s and its link to the politics of the day is of particular relevance to the understanding of archaeological education, since it marked the beginning of an unprecedented phase of state intervention in education and it is this state controlled aspect of education which is what demarcates archaeological education from informal learning about archaeology. Specifically, in terms of the current political context for education, the early 1970s can be viewed as a significant turning point.

During the 1970s, the UK entered an economic crisis and the progressiveness of the 1960s was increasingly derided as permissiveness (Gillard 2007b), and a group of right wing authors wrote a collection of 'Black Papers' which attacked the progressive ideas of the time (Bartlett and Burton 2009, 199 [2007]). In 1976 the Labour Prime Minister, Callaghan, made a pivotal speech at Ruskin College, Oxford where he spoke of a 'Great Debate' in education; he argued for greater state intervention into educational matters and called for education to become part of an economic restructuring strategy (Matheson, C. 2008, 30; Martin 2008, 220). Matheson, C. (2008, 30) has suggested that much of the educational policy reform that followed in the 1980s and 1990s can be traced directly back to political response to the social conditions of the late 1960s and 1970s. Suffice to say that in 1979 when a Conservative Government was elected this heralded a new political age.

Following their election victory the new Conservative Government began to implement the policies of the 'New Right' which brought together the seemingly opposing views of neo-liberalism and neo-conservatism (neo-liberalists argued for an expansion of the market while neo-conservatives called for a return to 'traditional' values) (Bartlett and Burton 2009, 71 [2007]; Gillard 2007a). It took some time for the full effect of the 'New Right' to impact upon educational policy but the impact was dramatically felt with the passing of *The 1988 Education Reform Act* (Bartlett and Burton 2009, 71 [2007]; Gillard 2007a). The Act promoted competition between schools, effectively creating a 'market' and introducing extensive curriculum changes through a prescriptive National Curriculum (Bartlett and Burton 2009, 88 [2007]). The National Curriculum specified both the range of subjects and subject content to be taught in primary and secondary schools (Sheldon 2011, 4). It was prescriptive, mandatory and refocused pupils' studies on a 'back-to-basics' curriculum (Gillard, 2007a, 70).

A 1997 Labour election victory saw a change in government, but perhaps surprisingly this did not signal a change of direction in terms of educational policy. In fact it has been argued that the Labour Government furthered the educational policies of the previous Conservative government by extending the free market education policies (Ball 2008). They also strengthened the policy of direct government intervention in curriculum matters by creating new regulations concerning both what and how schools should teach (Alexander *et al* 2009; Bartlett and Burton 2009, 215 [2007]).

Between 2008 and 2010 a revised curriculum was introduced into English secondary schools (Directgov 2010). This revised curriculum did not

overturn the National Curriculum but it did involve the creation of a raft of new qualifications, purportedly aimed at matching school leavers' skills to those required by employers. The review of the secondary curriculum was followed by a major review of the primary curriculum by Rose in 2009 (Rose 2009). Rose (2009) proposed a revised primary curriculum which offered more flexibility to teachers and organised learning into six areas of understanding rather than discrete subjects (DCSF 2009a, 10-15; Ward 2008). However, the Labour Government was replaced by a Conservative led coalition in 2010 who subsequently overturned Rose's primary curriculum.

In November 2010 the Department for Education (Department for Education 2010) published an education White Paper, 'The Importance of Teaching' which set out the coalition Government's vision for education. That vision is bold in its scope and covers every aspect of formal compulsory schooling including leadership, curriculum design and funding (Department for Education 2010). The White Paper supports a curriculum focus on subject knowledge rather than skills and promotes an emphasis on reading, writing, mathematics and science (Department for Education 2010, 43-45). However, within the White Paper a particular mention of the importance of cultural education was made in stating that ". . . [the Government will] work with our great museums and libraries to support their educational mission." (Department for Education 2010, 46).

The White Paper clearly set out a need for and a will to reform education. The 2010 White Paper has been followed by a number of educational reports and in particular a report on cultural education in England

(Henley 2012) is relevant to archaeological education. Henley (2012, 3 and 4) refers to the coalition Government's call for cultural activities to be an important part of the education of all pupils as set out in the 2010 White Paper and states that archaeology is part of this. He also notes that the coalition Government has stressed the importance of history teaching (Henley 2012, 17). A key driver for the report and a motivating factor for the changes to educational policy becomes clear as Henley (2012, 3) identifies the importance of culture to the growth and stability of the economy, particularly in the future.

The Government's response to Henley's report was favourable (Gove and Vaizey 2012) with all the recommendations being upheld, but the real impact for archaeological education is questionable. The report sets out 24 recommendations (Henley 2012, 56-61) many of which merely extend current practice (e.g. offering the Arts Award to all pupils). The report recognises the importance of funding to the development of cultural education, but Henley (2012, 22) does not make recommendations for increased funding, instead he argues for a unified funding strategy which augments current funding streams. Furthermore, the definition of culture within the report is incredibly broad and although Henley (2012, 23-25) recommends that all school pupils have the opportunity to visit sites of historic interest, the recommendations give a sense of the supremacy of arts based cultural opportunities. In addition to this, although Henley recognises archaeology as part of cultural education he does not refer to archaeologists at any point, despite referring to archivists, librarians and curators. Therefore, the report can be read as a step in the right direction in terms of

acknowledging the importance of a broad education, but may have limited impact upon archaeological education.

At the time of writing a draft primary curriculum for mathematics and English was published in 2012 (Department for Education 2012) followed by a draft curriculum for the other foundation subjects (Department for Education 2013a) but these drafts are subject to consultation and revision. The current situation is described more fully in Chapter 4 (see p. 183), but despite the Government's initial reassurances that there will be little change to the rest of the curriculum (Department for Education, 2012) the new framework for consultation sets out a radically different vision of the curriculum.

Alexander *et al* (2009, 27) has said that primary education is in a constant state of flux and it is certainly true that in recent times teachers have had to navigate their way through seemingly endless new government initiatives (Ball 2008). However, despite this and in spite of the changes to the curriculum discussed above, the National Curriculum and in particular the National Curriculum for history remains the most significant educational influence on archaeology in practical terms to date and thus archaeological education must be understood through this lens.

Some archaeologists have argued that the National Curriculum has served to severely limit the use of archaeology within schools (e.g. Pearson 2004, 140). Having said this, just as the introduction of PPG16 gave legislative weight to an already emerging situation, the introduction of the National Curriculum crystallised contemporary educational practice. So perhaps it is not entirely fair to blame the National Curriculum for the limited

use of archaeology in schools since as Planel (1990, 271) observed the use of archaeological education within formal compulsory education was already limited at the time of the introduction of the National Curriculum.

Furthermore, the limited use of archaeology within schooling seems to be a worldwide phenomenon (e.g. Arenas and Obediente 1990; Kehoe 1990; López and Reyes 1994; Molyneaux 1994). Nevertheless, the National Curriculum frames state funded education in England and it would be remiss not to discuss its significance for archaeological education.

The National Curriculum has undergone several revisions since it was first introduced in 1988 (Henson 2004b, 13). The revisions to the National Curriculum and their influence on the use of archaeology in schools have been discussed in detail by other authors (e.g. Armstrong 1996; Henson 2004a; Henson 2004b) and the fit of archaeology to the curriculum has been set out more fully below, but the situation which formed the educational context at the time this research was carried out is summarised here: Henson (2004b, 16) has commented that the National Curriculum “. . . stressed the importance of using non-documentary evidence for history”. This has been reiterated by others such as Armstrong (1996, 14-15) and Stone (2004, 4), and a brief examination of the statutory orders for the National Curriculum for history bear this out (Qualifications and Curriculum Authority 1999). Specifically, museums, artefacts, buildings and sites are all referred to as valid sources of evidence for historical studies (Stone 2004, 4). Archaeologists are the primary producers and interpreters of non-documentary evidence and yet, the word archaeology is conspicuously avoided in the statutory orders for history (Henson 2004b, 16). Moreover, the

reality is that history teaching in schools is almost entirely delivered through the use of documentary sources (Davis 2005; Stone 1997, 24). This is exacerbated by the focus of the history curriculum on the historic past as prehistory is sidelined (Arenas and Obediente 1990; Kehoe 1990, 201; Stone 1994b, 192). Yet, it is through this limited reference to prehistory that archaeology is specifically referred to within the National Curriculum statutory orders for history (Henson 2004b, 16). Therefore, the word 'archaeology' only gets a mention when no other evidence is available, sending the message that archaeology is somehow not as valid as written evidence and that prehistory is not as important as history (Kehoe, 1990).

In summary archaeology only has a marginal place in modern formal compulsory education. It is only formally included within the study of history, which is not a core subject and in fact is completely optional after the age of 14 years old (Sheldon 2011, 18). Even when archaeological evidence is referred to, the implication is that it is not quite as good as documentary evidence. This discussion of the role of archaeology in the curriculum is potentially relevant to understanding its value: the potential for archaeology to provide an alternative to traditional curriculum based education may be fundamental to its value for pupils and this will be explicitly explored in Chapter 4.

2.4 Approaches to archaeological education

Part of the work to establish the context and background for archaeological education involves elucidating what the approaches to archaeological education are. An examination of the literature reveals that just as

archaeological methodology is varied, so too are the approaches to archaeological education. The breadth and nature of these approaches will be discussed in this section.

Approaches to archaeological education can be described in two ways: they can either be categorised in terms of their aims, i.e. is the approach designed to teach pupils **about** the past or to help pupils learn **from** archaeological techniques and methods; or based on information drawn from the literature review, they can be categorised in terms of five practical approaches, i.e. working with archaeological artefacts, fieldwork, site tours, experimental and scientific archaeology and arms length archaeology (e.g. digital resources or teacher training). In practice these categories may overlap, for example, a given project may teach pupils about a specific time period, but also help them to develop understanding of scientific process using artefacts and experimental archaeology, but for clarity of explanation these categories have been teased out here.

The aims of archaeological education can be summarised as either being focused on process or content (O'Farrell 2006, 9). The educational programme for Key Stage 1 pupils (aged four to 6 years old) at Butser Ancient Farm gives an example of focus on content:

During the visit we look at similarities and differences between life today and in the distant past. We discuss homes and what they were like a long time ago. (Butser Ancient Farm, 2012 1-2).

Davis (2005, 16) refers to another example of a focus on content in describing how archaeology is specified as source of evidence for learning about Ancient Egypt on some curricula in the USA. This focus on content

rather than process fits the requirements of the English National Curriculum for history well since archaeology is usually referred to in this context as a source of evidence for history periods where documentary evidence is scarce.

However, it is equally possible for archaeological methods, technique and thinking (in other words 'process') to be used educationally. For example, Henson (2004a, 26-29) argues that archaeology could be used to teach citizenship by using it to learn lessons from the past which have relevance for modern day societies and to explore issues around sustainability and climate change. The Suffolk Garbology project provides an example of this approach (Corbishley 2011, 302-311). The project used archaeological rubbish and historic waste disposal to encourage pupils to investigate and understand issues around waste management and sustainability (Corbishley 2011, 302-311).

Kehoe (1990, 211) has written passionately about the potential for archaeological education to help pupils develop inquiry skills and indeed has shown that it was used in this way in the past. She describes a schools project where pupils were encouraged to investigate the physical and cultural evolution of early hominids through an examination of periodicals and newspaper articles. She believes that this approach with its emphasis on creating and testing hypotheses characterises an inquiry based approach. Corbishley (2011, 168-172) has described five different scientific enquiry based themes can be explored through the use of archaeology; for example, he discusses activities which enable pupils to investigate structures and

forces through experiments based around how heavy stones could be moved with an archaeological link to megalithic monuments (Corbishley, 2011, 168).

Many of the examples which emphasize the cross-curricular nature of archaeological education use a narrative driven link from the history curriculum to develop ideas in other areas of the curriculum through a process based approach. Pearson (2001, 24) gives an example of this approach when she suggests using archaeology as a starting point for studying a history topic such as the Romans, Saxons or Vikings and then taking the idea further by linking the topic to geography (map making and aerial photographs), mathematics (analysing and recording data from field walking), literacy (writing a site report), design technology (an examination of pottery manufacture) and art (an exploration of past styles). This is clearly an ambitious aim and relies on the assumption that teachers have planned to study all these different aspects of the other subjects at the same time as the archaeological history topic. However, it should be viewed as an indicative example rather than an instruction and as such highlights the fertile links between archaeology and other subjects.

There are many good examples of the five different types of practical approach. Using archaeological artefacts is perhaps the most well documented (e.g. Jameson and Baugher 2008, 3; Jones 2004; Malim 2004; Pearson 2001; Pearson 2004; Smith 2002) and perhaps the easiest to do. Artefacts can be used as sources of evidence and read like documents or used to develop inquiry skills. Many museums and a number of other archaeological organisations offer schools the opportunity to borrow real

archaeological artefacts. For example, Surrey County Archaeological Unit offer three boxes of artefacts to borrow, a prehistoric box, a Roman box and a Tudor box (Guinness 2012a). The Roman and Tudor boxes are accompanied by teaching packs. Another example of how artefacts can be used is afforded by the Archaeology in Action workshop offered by SEARCH, the hands-on education centre in Hampshire (Hampshire County Council 2011). During the Archaeology in Action workshop pupils study archaeological finds in a laboratory based environment.

Fieldwork approaches include real and simulated excavation, field walking, surveying and recording (Levy 2006; Malim 2004; Masson and Guillot 1994; Pearson 2004; Weldrake 2004). Real excavations can be difficult to arrange, but there are examples of this activity having occurred (e.g. Zimmerman *et al* 1994, 365). Pearson (2001, 23) states that as an activity field walking ought to be organised into three stages. The first stage should take place in school and involves introducing the project and explaining how it is done. This might involve mathematical work around coordinates. The second phase will take place in the field with the pupils taking part in the field walking activity itself. The final phase will take place in school again; finds will be washed, sorted, recorded and classified. It should be noted that Pearson's example gives a method for conducting field walking with schools rather than an example of something which has actually happened. Whether or not this approach has been delivered as an archaeological education programme is undocumented.

Site tours are perhaps easier to arrange than fieldwork opportunities, but still involve an 'outside the classroom' experience. For example, English Heritage offer free visits to all of their historic sites (English Heritage 2012). Free site visits at English Heritage properties and sites are self-guided, but other sites may offer guided tours. Tours enable pupils to see and experience the archaeological landscape first hand. This approach will usually centre on learning about the past although questions may be raised which enable pupils to learn from the past, particularly in terms of geographical studies (e.g. regarding erosion and settlement).

There are also many examples of experimental archaeology projects in schools (e.g. Bareham 1996; Reynolds 1999, Zimmerman *et al* 1994, 364) and hands-on craft opportunities (e.g. Smith, P. 2004). One good example comes from the Suffolk Garbology Project mentioned above. Through this project resources for schools were developed which were based on experimental projects such as firing pottery on a bonfire (Corbishley, 2011, 305). Another well practised example involves building ancient structures, such as roundhouses. ESAMP frequently deliver such projects in schools (ESAMP 2012).

The last approach to be outline here has been termed arms-length archaeology and includes digital resources (e.g. Past Explorers 2012) and teacher training (e.g. Bareham 1996; Pearson 2004), in other words this is an approach which sees archaeological education as something which is passed from archaeologists to others (and strictly speaking artefact loan kits and self-guided tours could also form part of this category if an archaeologists does not directly intervene). Digital resources may be directly accessed by pupils

themselves, such as the historical games featured on the Past Explorers website mentioned above, or may be targeted towards teachers, such as the Saxon Secrets source pack developed by Surrey County Archaeological Unit (Guinness 2012b). Teacher training also seeks to equip teachers with the necessary skills to take archaeology into the classroom which potentially reaches more pupils than archaeologists can on their own.

Thus archaeological education is a potentially rich educational resource which offers pupils a range of opportunities to learn about the past and to learn from the past. Archaeology has a home within history studies in schools, but can be applied across a range of subjects. However, it is unclear how far this educational potential is realised. Many of the examples given above relate to one off projects with no real understanding of how useful and well used the resources are in real terms and furthermore some of the examples are hypothetical: Pearson's method for field walking is not an account of project but merely a suggestion as are her suggestions for cross-curricular links. What is also telling is that these examples (both hypothetical and real) have been written about by archaeologists. Whether or not they really are useful and used in schools remains to be seen and without understanding the reality it is difficult to understand which theories underpin the actual practice of archaeological education.

2.5 What is the value of archaeological education?

Value as term was discussed above, but the specific values of archaeological education are discussed here. The discussion regarding the archaeological context above (pp. 66-75) indicates that archaeological

education is not well resourced in terms of staff or funding and thus the question of value becomes pertinent. For archaeological education to take place, those involved with it (its stakeholders) need to be convinced of its worth. It could be simply argued that it has very little worth and the lack of research into it and resources devoted to it are indicative of this. However, some archaeologists have made powerful claims for archaeological education which suggest this is not the case. This immediately leads to the questions what is value and value for whom.

Research Question 2 is explicit in setting a research agenda targeted towards understanding the value of archaeological education for pupils. Thus this thesis has the overt aim of exploring value in these terms. However, there is an implicit idea about value in the question too. The first part of Research Question 2 asks how the theoretical framework for archaeological education influences value and within this there is an implication regarding the value that archaeologists ascribe to archaeological education: the practice of archaeological education is underpinned by theory and this will have some kind of impact upon the value that pupils derive from engaging with it. This has been investigated and the findings set out in Chapter 6. However, archaeologists are also influenced by theory in terms of their motivation for getting involved with archaeological education and this is also linked to the value they ascribe to educational work. This idea is explored later in this section and in more depth in Chapter 4. The idea of value has been explored in terms of two different groups of stakeholder: archaeologists forming one group, and teachers and pupils collectively forming the other.

Value for archaeologists

In a consumerist model, archaeologists produce a watered-down version of our scholarly research, which we then package and sell to the public. This model assumes that the archaeological community has the knowledge, the skill, the authority and the right to determine what the correct interpretation of the past should be. . . Or, put another way, how do we educate the public to see the world our way and to protect our interests in the past. (McGuire 2008, 144).

What McGuire is describing in the quotation above is one of the key values of archaeological education for archaeologists, namely that the historic environment is inherently important and that the public must be educated to understand this in order to properly support archaeologists in their work. McGuire (2008, 144) terms this the 'consumerist model', but Merriman (2004, 5-6) has also used the term 'deficit model' and 'public interest approach' to describe essentially the same phenomenon (also see p. 194). The idea that archaeological education could be used to promote stewardship and further the aims of CRM was first explicitly discussed by McGimsey in the 1970s when he described public archaeology. However, it is clear that the idea of archaeological education to promote the aims of archaeologists is older than these labels or even the professionalization of the 1970s. For example, Corbishley (2011, 82-83) describes a 1943 conference at the Institute of Archaeology and refers to Stuart Piggott's call for archaeological education so that the public could properly understand the intrinsic value of archaeology and why they should pay for it.

It is certainly true that archaeological education can be effective in both raising awareness of the importance of archaeology (Colomer 2002, 88) and raising income (Coles 1999, 230; Keen 1999, 230). Keen (1999, 230) goes further in saying that archaeological education is not only desirable in

that it assists with the safeguarding of archaeology, but that it can also be a useful tool in instructing the public in the 'correct' version of the past and countering 'myths', reiterating the idea that archaeologists are the arbiters of the story of the past and reinforcing the link to the deficit model.

Safeguarding archaeology is a key aim of archaeologists who promote archaeological education using deficit model arguments. As Moe has asserted, "archaeology education efforts are typically driven by preservation" (2002, 176). Moe also claimed that since education is concerned with citizenship the correlation between the aims of education and archaeology are ". . . actually quite good" (2002, 176). However, this view has been disputed by others (e.g. Blais 1999; Davis 2005; Zimmerman *et al* 1994). Pupils and their teachers are not primarily concerned with archaeological preservation. They have a range of other needs, which (for school teachers) include fulfilling the requirements of the curriculum. In fact, it has been argued that archaeological education which is justified by the needs of archaeologists often does **not** meet the needs of pupils and school teachers (Davis, 2005, 17; Zimmerman *et al* 1994, 369).

Versaggi (2008, 203) considers this matter in questioning what the phrase 'in the public interest' really means and suggests that it is archaeologists who primarily benefit from this in terms of the opportunities it affords in terms of research. Davis (2005, 17) is also critical of archaeologists who use education as a means to secure financial support for archaeological projects and she argues out that this not only leads to ineffective engagement, but is simply wrong. She also goes on to say that

assessing the effectiveness of programmes in terms of their success in promoting stewardship is problematic, since as the emphasis is not on learning outcomes as such, often programmes are not evaluated (Davis, 2005, 17) which is another clear criticism justifying archaeological education along deficit model lines.

Alternatively, some archaeologists believe that they have a social and moral responsibility to take part in education programmes (Corbishley 2009, 1; Merriman 1998, 20). For example, Smardz (1997, 103) argues the case for public engagement in stating that it is the right thing to do and Schadla-Hall (2004, 269) called for alternative perspectives to be acknowledged and celebrated. It has been claimed that involving the public in archaeology, or at least listening to multiple voices, can be empowering, particularly for disenfranchised groups (McDavid 2004). Merriman (2004, 6-8) has used the term multiple perspectives model to describe these arguments for public engagement. This justification for archaeological education is related to ideas from post-processualist archaeology and will be discussed more fully in Chapter 4. However, it is worth noting, that just with the deficit model arguments, archaeologists were motivated by these reasons before the terms used here were coined. For example, Corbishley (2011) cites Jacquetta Hawkes writing in 1954 who believed that there were social responsibilities associated with archaeology which could be addressed through engagement with schools.

Thus the value of archaeological education that archaeologists perceive can be seen from two different perspectives. First, the deficit model

perspective in which archaeological education has an important role in disseminating messages about preservation thereby promoting the protection of archaeology and second, the multiple perspectives model whereby archaeology has a role in promoting inclusive histories and empowering disenfranchised groups. This summary suggests that these ideas are black and white alternatives although the reality is often that the arguments are blended. Clearly, though these two arguments have different implications for archaeological education. The deficit model views pupils as a potential heritage protection army if only they can be effectively educated about archaeology to see its inherent worth. Alternatively, the multiple perspectives model argument sees archaeology as a means of promoting social justice and reframes the question as what archaeology can do for the public, rather than what the public can do for archaeology. Thus what becomes apparent is that these two different ideas may well employ different approaches to archaeological education and may offer value to pupils in different ways. It is part of the purpose of this thesis to tease out and investigate these ideas.

Value for pupils and teachers

Understanding the value of archaeological education for pupils is a key aim of this research as set out in Research Question 2 which potentially builds upon the ideas associated with the multiple perspectives model described in the last section. However, understanding the value of archaeological education for pupils is irrelevant if the value for teachers is not also

understood, since teachers are the gatekeepers of pupils' education and as was demonstrated in the previous section ignoring the needs of teachers' leads to poor uptake of archaeological education (e.g. Zimmerman *et al* 1994, 369).

The values for pupils and teachers are related: broadly speaking it is not unreasonable to suggest that pupils want to enjoy learning and benefit from educational programmes which help them develop socially as well as academically and most teachers also aspire to achieving these aims for their pupils. However, teachers must also deliver a curriculum, balance the needs of many pupils, ensure they meet their professional standards, and satisfy the requirements of their regulators. Therefore, the value of archaeological education for pupils and teachers will be considered together to prevent duplication where there is an overlap between their needs, but some of the values discussed in this section will only be relevant to one group (e.g. the fit of archaeological education to the curriculum is more a discussion about the value for teachers rather than pupils).

Many archaeologists who have been involved with archaeological education have been powerfully convinced of its value for pupils through direct observation of pupil engagement. Stone (2004, 1) elegantly illustrates this with the following quotation:

To say that children, whose likely career path was at best 'down the pit' or working in the local supermarket were less than interested [in history] is an understatement. And yet, when I took a piece of Anglo-Scandinavian pottery into class I had the pottery in one hand and the children in the other.

This quotation shows that archaeology can be incredibly inspiring for pupils. One possible reason for this is that working with archaeology involves active interpretation of the evidence for the past (Armstrong 1996, 18; Copeland

2006, 88-89; Corbishley 1993, 1; Keen 1999, 230 – 233; Stone 1994a) which presents a fuller picture of the past than history does (Davis 2005, 10-11) and that it is the tension and discussion that working with archaeology generates that interests and inspires pupils (Davis 2005, 3). History teaching in schools tends to focus on documentary sources and as a result many pupils find history boring (Davis 2005, 11; Henson *et al* 2006, 35), whereas archaeology is a tangible alternative. It could also be argued that the focus on documentary sources excludes multiple perspectives (Garrison1990). As Davis (2005, 1) has stated,

The more narrow definition [of the past] carries a hidden message; it implies that an unwritten past is not legitimate and that the written stories of the past are complete, accurate, and objective. Such an understanding of history denies the past of many groups of people. . .

Thus, those children described by Stone may well have been more engaged because in some ways the Anglo-Scandinavian pottery they were looking at represented a past populated by people like them rather than a distant elite often described by historical sources.

Armstrong (1996, 22-23) identified six other benefits that archaeological education can provide for pupils:

1. Confidence in the subject matter
2. Improved educational attainment
3. A greater awareness of heritage
4. Enhanced scientific knowledge
5. Increased personal development

6. Improved social development

Whether or not benefit 3, 'a greater awareness of heritage' is of value to pupils is questionable, it looks more like a benefit to archaeologists, and some of the other benefits put forward by Armstrong are vague (e.g. benefit 6 'improved social development' - what exactly is improved and how?). However, Armstrong is not the only archaeologist to make such bold and unqualified claims. Other authors have suggested that working with archaeological resources helps pupils to develop problem solving skills (Ballantyne 1998, 77; Keen 1999, 230 – 233), observation skills (Cerón and Mz-Recaman 1994), enquiry skills (Kehoe 1990, 211), empathy (Keen 1999, 230-233), promotes scientific thinking (Keen 1999, 230-233), personal development and self-confidence (Keen 1999, 230-233) and may help children and young people to put history into real world contexts by providing the 'bigger' picture through looking at the large time-spans archaeology deals with (Moe 2002, 176; Zimmerman *et al* 1994, 359).

The idea that archaeological education can improve pupils' social development can be discussed in terms of the development of social capital (Office for National Statistics, 2008). The term social capital has been popular in recent years and essentially relates to the notion that networks between people have value in society. Social capital can be further categorised as either bridging social capital (creating stronger links across groups) or bonding social capital (forging stronger links within groups). It has been argued that archaeological education can be used to create both bonding and bridging social capital (Little 2007; Tait 2008, 8). The

development of bonding social capital can be explained by the fact that in using archaeology, school pupils are often required to work with unfamiliar evidence or use unfamiliar techniques. As a result, pupils who make a discovery together go through a bonding process (Little 2007, 2-4). In terms of the development of bridging social capital, O'Farrell (2006, 9) argued that when pupils examine evidence from 'other cultures' such as those from prehistory it encourages them to develop empathy for people from other contemporary cultures.

Archaeological techniques	Science curriculum links
Recording field monuments/archaeological features/artefacts, e.g. site records, field surveys, laser imaging, 3D scanning	'Scientific enquiry: Obtaining and presenting evidence; Explain and interpret observations, measurements and conclusions'
Analysis of data, e.g. computer analysis of artefact scatters	'Scientific enquiry: Use a wide range of methods to represent data, provide scientific explanations based on evidence' (Information and communication technology)
Analysis of artefacts, e.g. wear analysis of flint axes	'Scientific enquiry: Physical changes' (Design and technology)
Environmental archaeology, e.g. bone or seed analysis	'Life processed and living things: Nutrition; Living things in their environment'
Study/analysis of materials, e.g. X-rays of metal artefacts	'Materials and their properties: metals'
Aerial archaeology, e.g. photography, satellite images, air-borne radar	'Physical processes: Use of artificial satellites to observe the Earth'
Locating sites by geophysical instruments, e.g. magnetic, resistivity, sonar and ground radar	'Physical processes: Electricity and magnetism'
Dating techniques, e.g. pollen, dendrochronology, radiocarbon, archaeomagnetic, thermoluminescence	'Physical processes: electricity and magnetism'
Experimental archaeology, e.g. reconstructing buildings, replicating processes	'Scientific enquiry: Explain and interpret observations, measurements and conclusions; Evaluating interpretations'
Heritage issues, e.g. conservation of ancient monuments/landscapes	'Materials and their properties: Changing materials' (Citizenship/social studies)

Table 1 Links with science after Corbishley (2011, 167).

It has been claimed that archaeological education offers a cross-curricular approach as archaeology effectively crosses divide between the arts, humanities and sciences (Corbishley 2011, 166-190; Keen 1999, 230-233;

Zimmerman *et al* 1994, 359) and in fact Zimmerman *et al* (1994, 362) reported that this was an observation made by teachers themselves. How archaeology, which is traditionally referred to in pupils' history studies (see p. 187), can be used for teaching science has been demonstrated in Table 1 above.

Also archaeological education is usually delivered outside of 'normal' school contexts i.e. within a formal curriculum context but either outside of the classroom or by individuals who are not school teachers. Allon (1999, 79) observed that the mere fact that pupils are learning in an alternative setting can be engaging in itself. Allon does not elaborate on why she believes this but there are two possibilities. The first is that pupils view archaeologists as experts, in other words, people worth listening to. The second is that archaeologists who come in to the classroom have no predetermined expectations about the good or bad behaviour of particular pupils (Hooper-Greenhill 2007, 174); this can be both refreshing and empowering for pupils.

Archaeological education can potentially empower and benefit pupils in a number of significant ways. Therefore, despite the issues surrounding the use of archaeological education (e.g. lack of stable funding or lack of teacher confidence) it is hard to believe archaeological education is so rarely used by teachers. There may be several reasons for this. First, as Davis (2005, 16) points out although there is evaluation evidence to show that pupils enjoy engaging with archaeological resources, enjoyment, although an important factor in successful learning, does not necessarily equate to learning and there is less evidence for this: teachers who are under pressure to ensure their pupils meet attainment targets and learn what has been

prescribed on the curriculum may need further evidence that archaeology can assist them with these aims. This is also related to the second possible reason for the limited use of archaeology in schools, that is, as Zimmerman *et al* (1994, 369) pointed out archaeological agendas are not necessarily the same as those of teachers; archaeologists who construct educational programmes to deliver messages about preservation should not be surprised that schools are not as interested in their programmes as they would hope. The third possible reason for the limited uptake of archaeology within schools is that it has a limited role in curriculum studies, despite the insistence of archaeologists that it is useful for teaching across the curriculum (Pearson 2004, 140).

Archaeology has been relegated to the far corners of the history curriculum (Borman 1994, 186; Copeland 2004b, 33; Corbishley 2004, 69; Henson 2004b, 16-19) and the application of archaeological education to the study of science in schools seems to be largely unrecognised by teachers and curriculum designers (Planel 1990, 271). In general terms it is fair to say that archaeology is not valued within the education of children and young people as a subject in its own right (Kehoe 1990). This point is illustrated by the fact that the Examinations Board, AQA discontinued its GCSE syllabus for archaeology in 2004, with the last examinations taking place in 2006 (Henson 2008, 69). Therefore, it is the history curriculum which has served to set the parameters for archaeological educators (Copeland 2004b, 33; Corbishley 2004, 69) and hence the discussion of the use of archaeology in schools tends to naturally concentrate on using archaeology within history teaching (also see p. 187).

Archaeology is primarily concerned with an understanding of the development of humankind through an examination of material culture, therefore although archaeology contributes greatly to our knowledge of the past, it is also about enquiry, data collection and interpretation. Studying archaeology requires the development of a broad skills-set. It is true that the National Curriculum largely limits study about the past to historical eras where documentary sources reign supreme, but that does not explain why archaeology is not valued for its enquiry methods of investigation. Kehoe (1990, 208) argues that as archaeology is peripheral to history teaching it is often viewed only in terms of a strand of evidence for prehistory rather than being valued as a useful method of historical enquiry.

Using archaeology within historical periods can offer alternative interpretations and given that the National Curriculum for history requires pupils to develop an understanding of differing interpretations (Copeland 2004b, 33; Qualifications and Curriculum Authority 1999) it is perhaps surprising that it is not more widely used. This might be explained by the fact that many teachers struggle with this aspect of history teaching, preferring to focus on chronology (Henson, Bodley and Heyworth 2004, 35). This in turn helps to explain the lack of confidence in using archaeological resources that teachers often experience (Dhanjal 2004, 9). Some organisations (notably EH) have attempted to remedy teachers' lack of confidence in using archaeology by providing training (Pearson 2004), but it is apparent that more needs to be done.

Lack of confidence is not the only barrier teachers' face in using archaeological education resources. Lack of time is also an issue for

teachers. For example, Zimmerman *et al* (1994) outlined a week-long archaeological education programme. In evaluating the project they concluded that one of the weaknesses of the programme was the significant commitment of teaching time it required which just proved to be too disruptive to be practical (Zimmerman *et al* 1994, 366). In many cases school teachers working in classrooms across England may simply have too many demands on their time to focus attention on archaeology and archaeologists.

Also the fact that teachers must teach the National Curriculum and that archaeology is only given a passing mention in the National Curriculum should not be forgotten. Archaeologists have not been dissuaded by this and have insisted that archaeology is suitable for use across the curriculum. However, cross-curricular studies are not common in schools, even at primary level despite the efforts of Rose (2009) and in any case, if teachers experience difficulties in using archaeology to teach history they are even less likely to feel comfortable using it to deliver other curriculum subjects. These barriers to reaching teachers are not insurmountable as a number of successful archaeological education projects testify, but it is important to bear them in mind when considering archaeological education.

Therefore, although archaeologists have identified that archaeology delivers a number of benefits to pupils, many of those claims are untested (Davis 2005, 16-17). That is not to say that the observations made by archaeologists such as the one by Stone described above are not accurate or valid, but that the evidence base to substantiate or refute the claims is at best patchy. Similarly, archaeologists have made a number of claims which indicate that archaeological education has value for teachers, particularly

including helping them to deliver more engaging history lessons and teach a range of subjects through a cross-curricular archaeology based topic, yet still archaeology remains marginal within schools. Part of the problem seems to be that despite the value of archaeology there are also a number of barriers to using it, and archaeologists must understand these barriers. This does not simply mean lamenting the existence of the National Curriculum, instead archaeologists should engage with teachers (Jeppson and Brauer 2008) and work with them to find effective solutions to the barriers to using archaeology where it has a clear benefit to teaching and learning. Henson (2004a, 29) believes that archaeology has an great potential for helping children to learn from the past, but the main barrier to this is that archaeologists are poor communicators and do not effectively explain why archaeology is relevant to modern society. It may also be that there is a mismatch between the values that archaeologists ascribe to archaeological education and the perception of this value by teachers and pupils, for example Moe's assertion mentioned previously (see p. 92) that the fit of archaeologists' requirements to deliver preservation messages and the needs of pupils and teachers is quite good may not be entirely accurate.

2.6 Conclusion

In this chapter I have identified the practical context for archaeological education. This has involved a somewhat artificial separation of the practical context from the theoretical and political contexts to meet the aims of this discussion. Nevertheless, it has been possible to tease out a number of key

issues and identify significant practical influences on archaeological education. In the first instance, the key terms were identified and defined. A broad view of archaeology has been taken which involves an examination of material culture, landscapes, environments and behaviours. This broad view also encompasses a reflexive and socially responsible view of archaeology; this definition is further developed and analysed in Chapter 4. Conversely, a narrow view of education has been adopted which looks at the specific educational context of formal compulsory schooling. These two definitions frame archaeological education as referred to throughout this thesis.

Archaeological education is not a new innovation, although little time has been devoted to its research. It is related to other forms of public engagement, such as museums education/learning, community archaeology, public archaeology and other archaeological informal and lifelong learning programmes, yet it is distinct. In many ways it is separated from these other related fields by its intended target audience, i.e. school pupils, but that is highly significant, since that audience is clearly defined and operates within specific constraints.

The practical frameworks for archaeology and education discussed within this chapter included a discussion of the legislative frameworks. Planning legislation, notably the TPCA 1990 and PPG16 have been highly significant in terms of framing the archaeological context for archaeological education and in many cases have created a number of barriers which limit educational work, but also signify the emphasis that modern archaeology has on planning and cultural resource management over engagement and interpretation. PPS5 is a recent development in planning legislation and may

address some of the barriers to public participation in archaeology created by planning dominated archaeology. However, the impact of PPS5 has yet to take effect. In any case it may not have a particularly significant impact upon public engagement since PPS5 still prioritises archaeological knowledge over other views and fails to address many of the barriers to engagement (such as short time scales and health and safety concerns).

The nature of the funding of archaeological education (often limited or supported by short-term grant funding) was also discussed and this led on to a discussion of who delivers archaeological education. What appeared is a patchy situation where archaeological education is fitted in around other work.

The situation regarding educational legislation was considered briefly, however what was apparent is the significance of the National Curriculum, particularly the National Curriculum for history. Despite numerous revisions and additional educational policy introduced since the National Curriculum was first implemented it remains the single most significant educational influence on archaeological education. The Rose Review (2009) may have had a significant impact upon archaeological education in terms of a refocus of education on skills and cross-curricular studies, but it seems likely that the reforms being made by the current government are likely to exacerbate the exclusion of archaeology. By favouring a more traditional narrative version of history and a focus on literacy and numeracy there will be little time left for other studies, particularly ones that fall outside the scope of the foundation curriculum subjects.

Crucial also to the outline of the practical context for archaeological education is an understanding of its value for archaeologists, pupils and teachers. The value for archaeologists can be summarised succinctly into a deficit model argument versus a multiple perspectives argument, or essentially doing archaeological education to promote archaeological aims, or doing archaeological education as it is a moral responsibility. This discussion will be expanded more fully in Chapter 4. In terms of the value for pupils and teachers a number of claims were put forward including the potential for archaeology to enhance pupils' self-confidence and engage them more fully with the study of the past. Associated with this was a discussion of how well archaeology fits in with the requirements of the National Curriculum in England. It appears that archaeologists have identified significant potential for archaeology in schools that is not always realised, in many cases because there are significant barriers to its use. Barriers include a lack of confidence on the part of school teachers, a poor correlation between archaeological and educational aims, notwithstanding the barriers to engagement that exist within a planning dominated archaeology framework.

A number of approaches to archaeological education were also outlined and categorised into either by either their overriding aims or their practical approach. These approaches reflect the diversity of archaeological method. Some of these approaches have been asserted hypothetically, and may not actually characterise the reality of archaeological education.

Therefore, this chapter has demonstrated the following: first, archaeological education is unique from other forms of archaeological public engagement and has laid out the specific parameters for this. Second,

archaeological education has been long practised but it little understood. Third, the legislative frameworks for both archaeology and education create a number of barriers for archaeological education, and that recent and imminent changes to these legislative frameworks should be observed closely. Fourth, there seems to be a discrepancy between how archaeologists and teachers view archaeological education, meaning that much of what has been written about archaeological education by archaeologists represents an aspiration or a hypothetical situation rather than the reality and therefore, this research fulfils an important role in teasing out the reality for archaeological education. Having established this practical context, the theoretical context can be discussed.

Chapter 3

Archaeological Education:

The Theoretical Context

3.1 Introduction

In the preceding chapter I outlined the practical context for archaeological education and this involved referring to several key themes which underpin this thesis, in particular the motivation for engaging in archaeological education and its value. In doing so the terms deficit model and multiple perspectives model were referred to, as was the legislative context. These ideas draw upon different theoretical standpoints and it is for that reason that they will be described and discussed in this Chapter. Understanding the theoretical context for archaeological education is central to both the Research Questions and although there has been some discussion of the theoretical context for archaeological education by other authors, in the main this discussion is limited (Högberg 2007, 29; Stone 1997, 26). Therefore, it is the explicit purpose of this chapter to expand the discussion about the theoretical basis for archaeological education and explore ideas around the related theories so that the Research Questions can be properly investigated.

Individually, the fields of archaeology and education have been well-theorised and some authors have applied theories from these fields to archaeological education (e.g. Copeland, 2004a and 2004b; Davis 2005, 22-25; Planel 1990). Additionally, some of the theoretical ideas developed around interpretation and learning in museums are relevant. However, it should be noted that previously where theories have been linked to archaeological education the connections tend to be hypothetical extrapolations of either archaeological or educational theory rather than conclusions drawn from systematic analysis. This issue lies at the heart of this thesis, i.e. there has been little systematic analysis of archaeological education and thus the Research Questions have been framed to address this. Therefore, in addition to setting out a range of theories and discussing their relevance to archaeological education I have developed a framework for analysing archaeological education against pertinent characteristics associated with the range of theories mentioned in this chapter.

3.2 The Theoretical Basis for Archaeological Education

It could be argued that attempting to understand the underlying theories which influence archaeological education is pointless because practitioners will still be able to deliver archaeological education programmes without ever considering the theories they are influenced by. However, I firmly believe that understanding the theoretical basis of archaeological education is crucial to understanding the value it has for pupils and thus validating or rejecting the

claims that archaeologists have made for archaeological education (e.g. see p. 96). Furthermore as Hein (1998, 14-15) has argued for museums education:

If no conscious effort is made to adopt a theory of education, the museum's exhibitions, layout and general atmosphere will still express a point of view about education and visitors will still receive powerful educational messages, but these may be mixed and/or contradictory and visitors may be confused.

Confusion may be the least harmful consequence of the 'powerful educational messages' that Hein refers to, since as will be explored in the next chapter, the consequences may be much more serious. For now, what is important is the point that interpretation is not neutral but loaded with messages, not all of which are conscious. In addition to this, it is worth stating that I view archaeological education as an interpretative endeavour: even if archaeologists present pupils with raw data or help them to gather data of their own they are constantly providing interpretation, i.e. through the choice of what data is presented, what techniques they use to instruct the pupils with and the language used. This interpretative perspective is related to post-processual ideas, which will be described below, but essentially within this paradigm theory is inextricably linked to practice.

Having presented this standpoint the next question that follows is what theory or theories influence archaeological education and this is essentially what Research Question 1 has been framed to ask. However, before this question can be answered the range of theories with relevance for, or a connection to, archaeological education are set out and discussed in this chapter. It should be noted that this discussion is not an account of the entire body of archaeological and educational theory but rather a

selected exposition and discussion of theories with clear links to archaeological education, either because they have been mentioned by other authors or because those theories are explicitly concerned with wider communication and engagement of archaeology. In this sense, this thesis is acknowledging the work that has preceded it in terms of understanding the theoretical basis for archaeology and builds upon that work. The following theories (or bodies or theory) have been considered to be relevant: processual archaeology, post-processual archaeology, constructivism and social constructivism, multiple intelligence theory, learning styles theory and didactic approaches. Semiotics has also been considered given its links to interpretation and usefulness in theorising museum learning. However, for reasons which will be described later in this chapter it has not been used in the analysis of archaeological education in this thesis.

Processual archaeology

Processual archaeology is synonymous with the term 'The New Archaeology'. It has an emphasis on an impartial scientific method, is linked to ideas around professional authority, and also to cultural resource management. In fact in many ways processual thinking is linked to the professionalisation of archaeology, the exclusion of amateur and community involvement, and the emphasis on education as a conduit for archaeological messages (see p. 83). This processual movement emerged in the 1960s and can broadly be described as taking a more scientific approach to archaeological practice (Franklin and Moe 2012, 570; Trigger 1978, 6-7)

which sought to go beyond merely describing the archaeological record to explaining it (Hodder 1991a, 8 [1986]; Johnson 1999, 20-26).

In terms of archaeological education Planel (1990, 272) outlined the significance of the 1980s curriculum reviews with regard to the development of 'The New History'. The New History called for a 'skills-based' approach with a focus on active learning and the exploration of historical processes as well as historical content (Corbishley and Stone 1994, 387; Planel 1990, 272-273). Planel (1990, 271) drew a link between The New History and The New Archaeology. Yet, processual archaeology is not really one clear cut, well defined theory, but more a general approach (Johnson 1999, 20) and thus the alignment between The New History and The New Archaeology may not be quite as neat as Planel's assertion implies. However, on the basis that The New History had a focus on active learning and advocated for an understanding of processes then Planel's connection between The New History and The New Archaeology is tenable.

Kehoe (1990, 211) gives an account of how archaeological techniques could be used to teach social studies (skills based programmes for teaching humanities) in the USA: she outlines a unit of study called 'Anthropology – early man' which requires pupils to find out about the topic by using an inquiry based approach and developing testable hypotheses. Whilst, Kehoe does not specifically identify this programme as being informed by processual archaeology, she describes inquiry as “. . .the scientific method of observation, comparison, and generalization. . .” (Kehoe, 1990, 210) and thus this is an approach that those in favour of processual archaeology would recognise.

However, based on the literature the real impact of processual archaeology on history teaching appears to be limited. The skills based programmes Kehoe (1990, 210) describes were abandoned in favour of a more traditional teaching style and in the England the extent influence of the New History, to which processual methods have been linked is also debatable (Sheldon 2011, 6, 19 and 21-24). Further to this Planel (1990, 271), noted that despite the links between archaeology and history very few schools actually made any use of archaeology. Specifically Planel refers to an earlier study by Stone from 1984 which described a survey of 107 secondary schools about their use of archaeology: only a third of the schools used archaeology in the classroom and only two of the schools visited ancient monuments or archaeological excavations. Therefore, although there appears to be clear theoretical links between New History and the New Archaeology in terms of a scientific approach, the practical impact of archaeology on learning in schools is limited (Corbishley and Stone 1994, 385).

However, it can be argued that where processual ideas have had the greatest impact is in terms of influencing archaeologists to undertake educational projects. In fact Jeppson (2012, 591-592) argued that The New Archaeology was critical in shaping archaeological education and other outreach efforts for several decades at around the same time as CRM began to be well established and that archaeological education became focussed on learning about archaeological techniques as an end in itself. The reason for teaching these techniques and the link to CRM is very much tied to the importance of education in delivering messages about stewardship. Once

again this is an oblique reference to the deficit model argument for archaeological education and can be contrasted to the multiple perspectives model, which is linked to post-processualist ideas.

Post-processual archaeology

Post-processual archaeology does not exist *per se* in so much that the label does not describe a single theory, or even a range of approaches, rather the term embraces a diverse collection of ideas (Johnson 1999, 101; Hodder, 1991a, 156-190 [1986]; Shanks and Tilley 1987). Strictly speaking, post-processual archaeology literally means just that, since it evolved as a critique of processualist ideas (Hodder 1991a, 181 [1986]). Having made this point, the term post-processual archaeology has been used throughout this thesis as a convenient label and in terms of archaeological education some key ideas related to the post-processual critique are relevant and will be laid out here. Johnson (1999, 101) provides a clear and concise introduction to post-processual ideas and from the eight key principles he outlines, five have a particular significance for archaeological education. Those principles are 1. agency (Flannery 1999; Shanks and Tilley 1987, 104-5), 2. the idea that material culture can be read like a text (Engelstad 1991, 507; Hodder 1991a, 153-154 [1986]), 3. the importance of context (Hodder 1991a, 143-156 [1986]; Wylie 1992, 55), 4. the importance of values in the past and empathetic thinking (Hodder 1991a, 187 [1986]) and 5. that interpreting the past is a political act (Shanks and Tilley 1987).

Agency can be described simply as meaning that an individual is active (Johnson 1999, 104-105; Shanks and Tilley 1987, 64-65). Within the post-processualist framework this tends to mean understanding agency in the past, in other words how can the archaeological record be understood through the actions of individuals who both conform to and subvert social norms. The idea of agency is related to the fusion of Giddens's structuration theory and Bourdieu's post-structuralist critique (Johnson 1999, 104-105; Miller and Tilley 1984, 4; Shanks and Tilley 1987, 177) and it is this wider concept of agency that is relevant to archaeological education. Specifically, in accepting the idea of agency the individual learner becomes active. Recognising learners as active agents involves accepting that they have a role to play in creating meaning rather than viewing them as passive receivers of knowledge. Within museum learning, Hooper-Greenhill (2007, 41) asserts that the post-structuralist ideas of Bourdieu and Foucault have been significant in terms of understanding the active role that learners have and therefore that they play important role in interpretation. Within a post-processual framework all archaeology is essentially about interpretation (Shanks and Tilley 1987, 26-27) and therefore if this idea is brought together with Hooper-Greenhill's position then the relevance of the idea of agency to archaeological education can be seen. Simply put, in archaeological education programmes a focus on agency may be seen in terms of the discussion of individuals in the past and their stories and actions rather than the mere presentation of an historical overview.

The second key principle, i.e. material culture can be 'read' as a text, essentially means that the past can be interpreted in different ways and thus

if interpretation is subjective, it is possible for it to be manipulated (Engelstad 1991, 508-509; Johnson 1999, 105-107). Hand in hand with the acceptance of multiple interpretations is the acceptance of multiple perspectives (Meskell 1998, 6): as Preucel and Hodder said (1996, 526) “Critical discourse helps create the conditions for the possibility of the participation of alternative voices, voices such as feminists, indigenous people, and nationalist perspectives”. This position frames the definition of archaeology set out by Merriman (1998, 20) referred to in the previous chapter, which argued for a pluralistic approach and is also partially connected to the growth of community archaeology and other public engagement efforts (see p. 44). Therefore, in these terms post-processual thinking can also be seen as a candidate for influencing the motivation of the archaeological education.

Despite Merriman’s (1998, 20) assertion that academic archaeologists are agreed that archaeology should be a pluralistic discipline there have been significant criticisms of this position. There are two main criticisms of the acceptance of multiple views: first, if everyone has the right to interpret the past, what is the role for professional archaeologists (e.g. Johnson 1999, 172), and second, if multiple perspectives are embraced and valued how can racist and bizarre views be filtered out (e.g. Johnson 1999, 172; Preucel and Hodder 1996, 525). Other authors (e.g. Johnson 1999; Hodder 1991a [1986]; Schadla-Hall 2004; Shanks and Tilley 1987) have debated these criticisms in general terms but this research tackles a much more specific issue which is the engagement of school pupils with archaeology and thus the debate about the professional role of archaeologists and the nature of the interpretations proposed by the pupils is academic if they are not engaging with archaeology

at all. It follows that the model of engagement derived from the acceptance of multiple perspectives of interpretation that is relevant here. The point being that archaeology is a dynamic discourse, as Hodder (1991a, 181 [1986]) said, "It [archaeology] is more an asking of questions than a provision of answers". This is highly significant since this questioning approach appears to differentiate archaeological education from traditional methods of history teaching: "it [history] was a narrative without the tension of disagreement and difference" (Davis 2005, 11). It is this tension derived from debate and synonymous with a post-processual approach which has the capacity to excite, inspire and engage (Smith, L. 2004, 33). Therefore, this principle would characterise archaeological education through a discussion of alternative interpretations. It may also be associated with archaeological educators relinquishing some of the control for interpretation. In this last point, I concur with Smith (2006) in viewing the need that archaeologists have to exert their professional authority, as a tool of social control, which reinforces inequality in power relations. The idea of the nature of authority is discussed more fully in the next chapter.

The third principle is the importance of context. Johnson (1999, 107) states that Hodder views context as centrally important to archaeology and that it is by understanding context that alternative meanings are developed. This idea is therefore inextricably linked to the acceptance of the multiple voices perspective since the alternative views can be understood through the alternative understanding of context. Therefore, exploring multiple perspectives should always take account of the context for the interpretation. In archaeological education this may be manifested through the overt

examination of the context for the evidence and a consideration of how different contexts may lead to different interpretations (Leone, Potter and Shackel 1987, 289-292).

The fourth key principle is understanding values of the past and using empathetic thinking to achieve this (Hodder 1991a, 187 [1986]; Johnson 1999, 104; Leone, Potter and Shackel 1987, 291-293). Essentially, when trying to explain the past archaeologists try to understand the feelings, thoughts and motivations of people at the time and thereby use empathy to do this. This perhaps explains the structure of the National Curriculum for history. In Key Stage 1 pupils start to think about local topics, or topics such as toys and the seaside (Department for Education 2011a) and in doing so they are beginning their studies by examining historical contexts which are close to their own frame of reference and thereby more easily identified and empathised with. As their ability to empathise with others grows they are introduced to more distant historical periods such as the Tudors and the Romans (see Department for Education 2011b). At Key Stage 3 this is developed not through distant historical periods but complex historical themes such as democracy and war and peace (Department for Education 2013b). As a feature of archaeological education this may appear in two different ways. In the first instance pupils may draw upon their own experiences and feelings to understand the feelings and experiences of those in the past and the archaeological educators may use analogy to help pupils to do this. In the second instance the archaeological educator may highlight the different value systems of people from the past and compare and contrast them to values from the present.

The fifth key principle of post-processualist thinking to be outlined here is that archaeological interpretation is a political discourse whereby the interpretation of the past is influenced by the political concerns of the present (Johnson 1999, 107; Shanks and Tilley 1987). The idea described above that archaeology has a role in challenging people's ideas of the past is not necessarily unique to post-processualist thinking, however, what really characterises the theory is the idea of the commitment to reveal inequalities and move towards a more democratic pluralism (Smith, L. 2004, 46). Viewed within these terms archaeological education ceases to be merely learning about the past, but becomes something potentially much more contentious: the very nature of what is on the history curriculum reflects a political statement. For example, Corbishley (2011, 120) refers to the Government intervention in 1991 which prevented teachers discussing very recent historical events. Corbishley (2011, 120) speculates that this exclusion was applied to prevent teachers discussing politically contentious issues and was effectively an admission that history teaching is a political act and this has been discussed in more depth in Chapter 4 (see p. 188). Additionally, other authors have pointed to the exclusion of prehistory from curricula across the globe to emphatically make the point that history teaching is intrinsically political (Arenas and Obediente 1990; Kehoe 1990, 201; López and Reyes 1994, 143; Stone 1994b, 192). The argument follows that historical periods tend to reflect the past of the dominant party in society and by excluding the histories of other groups this legitimises the dominant party. If this argument is correct and curriculum designers choose to reflect dominant politics through history teaching then archaeology may be

marginalised on two counts: first because it is the chief means of investigating prehistory (Kehoe 1990) and if that is off topic, then the role for archaeology is minimised; and second, if archaeologists take a questioning approach and are politically aware they may lead to pupils to engage with versions of history which have not been sanctioned. Or as Fleming (2000, 145) puts it, "Archaeological evidence is treated as an exotic adjunct, a peripheral curiosity not to be over-used lest it encourage children to the nature of received wisdom too deeply. . .". This is not necessarily a characteristic of individual archaeological education programmes, but rather relates the debate about the design and scope of curriculum.

The idea that engaging with archaeology is a political act is a key theme for this thesis. The relevance of this idea to archaeological education is outlined here, but this discussion will be more fully developed in the next chapter. What is pertinent for this discussion is that several of the key principles consistent with a post-processual approach to archaeology are relevant to archaeological education. In summary, the idea of agency means that the active participation of learners in interpreting and recognising the past is acknowledged in archaeological education programmes based on post-processual ideas and this enshrines a recognition of the use of empathy in developing interpretation. The acceptance of multiple perspectives encourages archaeological educators influenced by post-processualist ideas to reach out to pupils and engage with them and their ideas and this is linked to the idea of a contextually aware archaeology. However, the political nature of archaeology may serve to limit the use of archaeology in schools since it might not always deliver the messages that curriculum designers intend.

Specifically Copeland (2004a, 134) has made a link between these ideas and constructivism, which will be discussed more fully below.

Semiotics

In the most basic terms semiotics is the study of signs (Johnson 1999, 194). Semiotics is a structural theory which recognises language as a system of signs and these signs can be broken down into the signifier and the signified (Roberts 1997, 57). The signified is a concept or an object and the signifier is the label or meaning for that object or concept. These ideas were initially proposed by Saussure (Roberts 1997, 57). He viewed the link between the signifier and signified as arbitrary, but reasoned that as social convention (which is not arbitrary) governed the link then language is imbued with value and hidden meaning (Roberts 1997, 57-58). Therefore, if this idea is accepted, all text and language is a signifying system which delivers messages and values and this extends to interpretation. This idea has been discussed by Roberts (1997) and Shanks and Tilley (1987 cited by Preucel and Hodder 1996, 525). Roberts (1997, 60) suggests that interpretation in museums privileges the knowledge and values of the professionals who develop and authorise the information. Shanks and Tilley (1987 cited by Preucel and Hodder 1996, 525) have made their semiotic critique of museum interpretation more strongly. They argue that artefacts on display in museums refer to an absent signified (past meaning) whereas the interpretation is actually meaning constructed in the present. This

construction in the present appears to give the object meaning, but is in reality just a construction.

The idea of language as a series of signs is relevant to archaeological education in terms of developing an awareness of the messages that archaeologists communicate to pupils. The theory of semiotics has been used to deconstruct interpretation in museums and examples from museums have been referred to above, but the theory has a wider relevance to archaeological education because since it is based on the premise that language is a system of signs it is applicable to any and all forms of communication. Therefore, as archaeological education relies on communication with pupils in some form, e.g. directly through guided tours or artefact handling sessions or indirectly through printed resources or interpretation panels on site, these ideas are relevant. It is also important to note that many of these ideas have influenced socio-cultural theories and this has been discussed in the following section. Thus in terms of the relevance to the subject matter, the influence of language and linguistics has been mediated through a discussion of socio-cultural theories.

Funari (1994, 129) has described the use of material culture in the classroom itself to convey messages of power, and certainly the labels that archaeologists use may help to reinforce or subvert these ideas. For example, an archaeologist who visits a class and is described as an expert will undoubtedly create a series of expectations from the pupils, whether the archaeologist then decides to reinforce that image by acting in an authoritative manner or subvert that image by making efforts to share authority is likely to have a significant impact. Davis (2005, 13) also

comments on this by drawing upon the ideas of the semiotician Barthes. She refers to Barthes idea of mythology as 'depoliticised' speech, the term depoliticised here means that the speech has been separated from its author. She goes on to say that when the voice of the author is hidden it is presented as beyond question, ultimately authoritative and that this is often the case with museum interpretation and the general presentation of history (on sites and in text books). Davis believes that archaeology tends to be more reflexive and therefore more readily open to questioning and revealing the voices behind its interpretation.

Whilst Davis' position that archaeology is more reflexive than history may be true in some cases, it is not always so. Archaeologists are also the producers of museum interpretation, text books, popular television programmes and other materials which are guilty of the charge of using depoliticised speech, particularly in terms of the position of archaeologists as experts (Smith 2006, 51). However, it is entirely within the realms of possibility for archaeological education programmes to experiment with alternative signifiers in terms of discussing archaeology. Different accounts of the same material could be provided and discussed, for example it is possible to describe Iron Age chariot burials as Iron Age cart burials. The use of the terms 'chariot' and 'cart' carry different connotations and these could be explored. This may also be viewed in terms of the post-processual characteristics of exploring context and alternative interpretations. Of course, one of the key issues with this idea is that often archaeological educators are not archaeologists at all, but tend to be education specialists who are tasked with delivering archaeological messages (see p. 73). As non-archaeologists

they may not themselves have the confidence to challenge received archaeological wisdom much less guide others in doing so. They may not even be aware of the constructed nature of the messages they are delivering.

To summarise, the theory of semiotics indicates that interpretation in all its forms conveys value laden messages which is also consistent with some aspects of socio-cultural theory and some principles of post-processual archaeology. In the past and sometimes in the present the messages have been and still do remain hidden. When this occurs those in charge of delivering those messages have retained the right to create meaning and are effectively vetoing others from doing so. As a subject which is expressly concerned with the communication of archaeology to pupils, semiotics is of interest, but can also be seen to be mediated through other relevant theories. Nonetheless archaeological educators ought to ask themselves whether they are willing to explore ideas around language and share authority for constructing meaning or whether they see themselves as arbiters of the past who want to reinforce this message.

Constructivism

In this section I propose to explore the relevance of constructivism to archaeological education. This involves describing constructivism both as an educational theory and an epistemological theory. The task is complicated by the fact that constructivism is really an umbrella term for a range of related

theories and different authors use the same terms to mean different things and different terms to mean the same things (e.g. Kukla 2000, 5). Thus, I have defined specifically what I mean by the term constructivism.

Additionally, social constructivism will also be discussed. Some authors view social constructivism as a branch of constructivism (e.g. see Gredler 2005, 85 [1986]), whereas others view the two standpoints as ontologically separate and have instead defined social constructivism as a socio-cultural theory (e.g. Ernest 1994). Thus in this broad section on constructivism I will discuss the relevance of a number of associated socio-cultural theories to archaeological education. In doing so, despite viewing social constructivism as separate from constructivism I have made a choice to present my discussion of the two sets of ideas together. This reflects the complexity of the ideas and the links between them.

Constructivism is primarily a theory of knowledge (Dennick 2008, 40 [1999]; Hein 1998, 34) with its roots in philosophy and psychology, but it has been widely adopted within the theoretical canon of a number of other disciplines including education (Gredler 2005, 81 [1986]). In fact Matthews (2000, 161) asserted that constructivism can be seen as a grand unified theory for education. The educational application of constructivism is directly relevant to this thesis since other authors have referred to it in their discussions of archaeological education (e.g. Bartoy 2012; Copeland 2004a, 2004b and 2006; Davis 2005; Henson, Bodley and Heyworth 2004).

At this stage a word of caution must be put forward. It is easy to become confused when trying to navigate a path through constructivist thinking and although constructivist ideas seem to offer an interesting

premise for archaeological educators there are potential pitfalls in using such as complex term. For example, Copeland (2004a, 2004b and 2006) has discussed the use of constructivism in developing archaeologically based approaches to history teaching and on site interpretation, and although he refers variously to ideas associated with both constructivist and social constructivist thinking, he only uses the term constructivism. This conflation between constructivism and social constructivism is also repeated by Henson, Bodley and Heyworth (2004) and Bartoy (2012). This may simply be a reflection of those within education who view social constructivism as a branch of constructivism, but it may also be a symptom of misunderstanding and certainly may propagate it.

Therefore, in order to reduce ambiguity an explanation of constructivism and my understanding needs to be set out. Constructivism has been applied to a variety of different disciplines in different ways (Ernest 1994; Gredler 2005, 81 [1986]). A full account of constructivism in all its different forms is beyond the scope of this thesis, but it has been described here in basic terms in order to understand its relevance to archaeological education.

Constructivism has its origins in the epistemological debates about the very nature of knowledge and draws upon the Aristotelian idea of empiricism, which broadly speaking is the idea that the senses are vital in developing knowledge (Bartlett and Burton 2009, 97 [2007]; Dennick 2008, 41 [1999]). Essentially, despite the differences between different schools of constructivist thought, what draws them together is the idea that knowledge is constructed by humans rather than existing externally. Within this

understanding constructivist thought varies from those that believe that there is no external reality at all and that all knowledge is created in the mind to those who believe that there is some external reality, but that it is mediated and understood through the processes of the mind (Kukla 2000, 25). The former version of constructivism has been referred to as radical constructivism (Dennick 2008, 49 [1999]) and very strong constructivism (Kukla 2000, 25). Confusingly Ernest (1994) uses the term radical constructivism in a general way whereas others refer to the same idea as personal constructivism, individual constructivism (Davis 2005; Gredler 2005, 84 [1986]), or cognitive constructivism (Davis 2005, 22). I have simply used the term constructivism. In terms of archaeological education this may be viewed through opportunities for pupils to develop their own ideas through the mediation of evidence through their own senses: a free choice environment where pupils can choose how to and with what to engage would provide an effective platform for this.

Additionally, there are differences between the discussions about epistemological constructivism, i.e. what is the nature of knowledge, how it is constructed, and the application of constructivism to educational theory and practice (Gredler 2005, 81 [1986]). Gredler (2005, 84 [1986]) has classified educational constructivism into three further groups: personal constructivism, philosophical constructivism and social constructivism. According to Gredler (2005, 87-88 [1986]) philosophical constructivism means any teaching strategy which is progressive and pupil centred, but which does not necessarily make assumptions about the nature of how knowledge is created or processed. This general definition of constructivism as a child centred

approach seems to have been adopted by authors such as Henson, Bodley and Heyworth (2004) and may explain why it appears that they have conflated constructivism and social constructivism.

Social constructivism acknowledges the social aspect of learning and will be described in more detail later in this section. Personal constructivism (constructivism using my terminology) is centred on the idea that individuals construct knowledge and is based the cognitive development theory of Piaget (Gredler 2005, 85 [1986]). Piaget was a psychologist who broke new ground with his work by showing that children's thinking is cognitively different from that of adults (Gredler 2005, 264 [1986]). Crucially he defined four cognitive stages which children progress through (Bartlett and Burton 2009, 113 [2007]) and explained learning to be an adaptive process (Dennick 2008, 44 [1999]). He reasoned that this adaptive process occurs through the two contrasting cognitive processes of assimilation and accommodation (Davis 2005, 22; Dennick 2008, 44 [1999]). Piaget asserted that learners assimilate new information which is at times at odds with their current conceptual frameworks thereby creating what he termed cognitive dissonance and in order to achieve cognitive equilibrium they must accommodate new ways of thinking (Davis 2005, 22; Dennick 2008, 44 [1999]; Ernest 1994). This adaptive model of learning has been described as an evolutionary perspective or a genetic epistemology (Davis, 2005, 22; Dennick 2008, 44 [1999]; Gredler 2005, 267 [1986]).

Davis (2005, 22-23) gives an example of a pupil coming to a realisation which she attributes to an adaptive response to cognitive dissonance. In this particular case the pupil was on a five day school field trip

to the Crow Canyon Centre in Colorado. Davis reports that the pupil was struggling to get past a stereotypical image of Native Americans and then finally reached a moment of clarity on the fourth day of the visit when he saw a kiva and declared that it was not a tepee. The pupil had been in contact with information which contradicted his prior views for four days prior to his realisation, but he needed time before he was able to accommodate and assimilate the new information. Copeland (2004b, 86) refers to the same process of stimulating cognitive dissonance through interpretation to enable visitors to create new constructions and therefore it is entirely possible to take an active approach to using Piaget's ideas within interpretative contexts. Using Piaget's ideas to consciously understand how visitors make constructions and evaluate the effectiveness of interpretative messages is an attractive premise, since as Black and Hein (2003, 118) have noted visitors will draw upon their own personal experience to construct their own meanings regardless of the messages which curators intend to impart. An archaeological educator may use the approach actively by presenting pupils with information which causes them to question their current ideas and modify them. This may be most effective if the educator has taken the time to identify the prior constructions of pupils (Copeland 2004a, 140; Copeland 2006, 90).

However, Chambers (1999) and Peterman (1997) have cast doubt on the effectiveness of constructivist ideas and dismiss them as little more than rhetoric. This really misses the point: the adaptive process of constructivism does not describe what learning takes place, just that learning takes place as Black and Hein indicate. Davis (2005, 26) also considers the application of

Piaget's stages of development to historical and archaeological education when she points out that within a Piagetian framework children who are at the preoperational and concrete operational stages (children aged five to nine years old) are not supposed to be able to understand complex concepts. Thus, historical reasoning which demands the ability to deal with the abstract concept of time would be impossible if Piaget's ideas are correct, the implication being that it would be meaningless to target archaeological programmes at young children. She also refers to a critique of Piaget's ideas in terms of history teaching which centres on three points: first, the progress through different stages of development varies with individuals and therefore is not formally tied to specific ages as Piaget's suggest; second, pupils can advance through the stages of development and in their understanding with the help of a teacher; third, although Piaget's ideas are useful for understanding the development of scientific knowledge, they are not as useful for understanding how children absorb and process social knowledge (Davis 2005, 26). Davis (2005, 26-27) offers an alternative which addresses the first point by outlining the constructivist post-Piagetian ideas of Montangero who argued that Piaget's ideas were not meant to be formally linked to ages and he himself suggests a more fluid approach to development. However, even within the diachronic approach offered by Montangero, he identifies ability to conceptualise time occurring around the age of about ten years old. In terms of the third point of the critique, archaeological education can be framed as science education and thus this point is specific to non-scientific archaeological education approaches. The second point of the critique mirrors a general critique of the Piagetian theory

of mind which is that within it ideas about interaction and the social dimension of learning are underdeveloped (e.g. Ernest 1994).

Therefore, Piaget's ideas of a genetic epistemology coalesce with the idea that visitors construct meaning and can be used when developing interpretation and evaluation. An understanding of Piaget's stages of development modified through Montangero's diachronic approach may help in understanding how children construct narratives (Davis 2005, 28). Yet, Piaget's stages of development effectively imply that there is little use in targeting archaeological education at young pupils and negates the social role of learning and the role of educators.

Social constructivism

The criticism that Piaget's theory negates the role of the teacher is essentially because what he describes is a theory of learning rather than of teaching (Ernest 1999). An alternative perspective which does address the role of the teacher and the social aspect of learning is offered by social constructivism. However, before discussing the nature of social constructivism and its application to archaeological education a word of caution must be offered: as just as constructivism is an umbrella term for a number of varying ideas this is also true of social constructivism. Therefore, before examining the suitability of a social constructivist perspective to archaeological education it is important to clarify what I mean by the term and in doing so highlight some of the controversy which surrounds it.

Some classify social constructivism as a branch of constructivism and there are constructivists have 'bolted' a social aspect on to their understanding of constructivism (Ernest 1994). Yet, others have persuasively argued that social constructivism is ontologically distinct from constructivism (Ernest 1994) and can be defined instead as a socio-cultural perspective (Gredler 2005, 87 [1986]). Kim (2001) provides a succinct definition which adequately covers social constructivism as an umbrella term: "Social constructivism emphasizes the importance of culture and context in understanding what occurs in society and constructing knowledge based on this understanding". In fact Kim (2001) provides a very useful summary which describes social constructivism. She asserts that social constructivism is based on three premises: reality, knowledge and learning (Kim 2001). Social constructivists believe that reality and knowledge are constructed collectively by the interactions of humans (Ernest 1994; Ernest 1999; Kukla 2000) and that learning is a social process (Kim 2001). Kim (2001) goes on to outline four learning perspectives within the framework of social constructivism: the cognitive tools perspective, idea based social constructivism, a pragmatic or emergent approach and transactional or situated cognition perspectives. This classification will be used to explore the social constructivism and its relevance to archaeological education and in doing so a number of related socio-cultural theories have been referred to. This may be viewed as slightly confused since the discussion covers a range of different ideas and perspectives. However, as Zuengler and Miller (2006, 38) have pointed out there is a precedent for using socio-cultural theories in an interdisciplinary way. Additionally, I have highlighted where I have drawn

upon socio-cultural theories other than social constructivism, but for the purposes of this discussion and the obvious overlaps between the ideas it makes sense to consider the ideas simultaneously.

Cognitive tools perspective

This perspective focuses on the learning through the development of cognitive skills and strategies. Vygotsky's Zone of Proximal Development (ZPD) is an example of this type of perspective. ZPD is an activity theory where the zone refers to the gap between what a learner can understand on their own and what they can understand with the help of a teacher and thus frames the role of the teacher as that of a guide (Mercer and Fisher 1998, 111; Ernest 1994; Zuengler and Miller 2006, 39). Within a Vygotskian perspective the classroom is viewed as a learning community where the goal is to develop knowledge (Gredler 2005, 85 [1986]). Such a framework is an alternative to learning by discovery and gives the role of guide to the teacher, whose task it is to create stimulating learning environments (Gredler 2005 85, 87 [1986]) and this is known as scaffolding (Tobin 2000, 244). In terms of archaeological education this may be characterised by group discussion and the archaeological educator using active questioning to convey ideas and information through active questioning rather than through a lecture style.

Amongst archaeologists who have discussed constructivist ideas, Vygotsky appears to be quite popular. The ideas of the ZPD and scaffolding seem to address the issue raised by the critique of constructivism discussed by Davis (above), in that children who may not otherwise be cognitively

developed to understand historical reasoning may be assisted by a teacher to make this cognitive leap. In fact, on closer examination the constructivist framework for interpretation provided by Copeland (2006, 90) actually in part describes a cognitive tools perspective rather than a purely constructivist approach, since he views interpretation as instructional scaffolding. In this light it can be argued that by its very nature archaeological education is more closely aligned to social constructivism than constructivism since it involves intervention (both indirect and direct) of educators who will inevitably attempt to bridge the gaps in pupils knowledge.

Idea based social constructivism

Gredler (2005, 87 [1986]) describes this as an alternative to learning by discovery using problem solving instead. By focussing on an idea that is meaningful to different pupils in different ways (e.g. point of view in literature) the pupils will need to work through their differing ideas and thus contribute to a communal practice (Gredler 2005, 87 [1986]; Kim 2001). This form of social constructivism can be boiled down to a collaborative problem solving approach and as was indicated in the previous chapter, archaeological education as a way to explore problem solving has been discussed (see p. 97). Examples of this kind of approach might be exemplified by the use of 'big concepts' in interpretation, such as change or chronology which encourage reflection and discussion (Copeland 2006, 89) or interactive exhibits based around making sense of artefacts, such as developed by Dhanjal (2005).

A pragmatic or emergent approach

Gredler (2005, 86 [1986]) says that “the emergent perspective is a coordination of personal and social constructivist theories”. Within this view knowledge can be constructed both on an individual level and socially with neither mode of learning taking primacy over the other. Ernest (1994) calls this a complementary process which he thoroughly denounces, citing the problems of the relationship between “private and public knowledge” which are ontologically separate as his justification for criticism. However, this complementary approach has been popular in mathematics education (Gredler 2005, 86 [1986]; Kim 2001) and science education (Ernest 1994). For example, Driver was a key force in the development of this approach to science education (Dennick 2008, 45 [1999]). She recognised the individual nature of pupils’ constructions, but noticed that pupils sometimes create inappropriate constructions which in turn inhibit further learning. However, she developed a method based on social constructivism whereby teachers can use experiments to enable pupils to challenge and remedy these ideas (Dennick 2008, 45 [1999]).

It could be argued that archaeological education commonly works in this way. When confronted with unfamiliar artefacts, before any discussion begins pupils begin to develop constructions about what the artefact was used for and these can be tested through experimental use. However, having said this, the constructions and misconceptions which pupils (and others) often arrive at are based on their prior knowledge and their cultural understanding (e.g. Hodder 1991a, 2-6 [1986]). In this sense, it is impossible to divorce individual constructions from culture and thus, I argue that a

complementary approach to archaeological education is really still socially determined, since pupils will draw upon cultural experiences and understanding to develop their initial constructions.

Transactional or situated cognition perspectives

The relationships between people and the environment are key to this perspective (Kim 2001). Vygotsky's ideas about the important role of shared culture which is mediated by and expressed through symbolic systems (Gauvain 2001, 43); the most important of these being language (Wertsch 1985, 14; Zuengler and Miller 2006, 39) can be classified within this perspective. Related to this are Bahktinian approaches to language, which develop semiotic ideas of the signifier and signified to the spoken language (Wertsch 1985, 225) (see also pp. 121-124 above). The metaphor of conversation can be used to describe this idea (Ernest 1994) and thus it is the interactions between people both in the roles of speakers and listener which lead to the creation of knowledge (Zuengler and Miller 2006, 42). Also closely related to this is language socialization which was developed as an anthropological approach. These are distinct ideas drawn from different traditions, but there are overlaps and have been used together in an interdisciplinary fashion (Zuengler and Miller 2006, 38). Crucially, for archaeological education the link to semiotics and the interplay of power relations are relevant. As such archaeologists should be aware of the language they use in interpretation, particularly in terms of jargon laden text,

commentary or instruction. In practice this might involve archaeological educators using language to provoke questions and discussion.

Despite the obvious application of a language based approach Zuengler and Miller (2006, 40) critique the effectiveness of language socialization as a teaching method due to the differences between language norms in school and at home. However, I argue that this could be used effectively in archaeological education and frequently is by 'characters' from the past who use 'misunderstandings' between the words commonly used in the past and those used today to stimulate further discussion and understanding.

Situated learning theory also comes under the umbrella of Kim's final category. Lave and Wenger developed this model, Lave drawing on a background in anthropology and Wenger drawing on a background in teaching and artificial intelligence (Infed 2009). Situated learning theory is essentially about participation (Lave and Wenger 1991; Zuengler and Miller 2006, 40-41). Learners come into contact with knowledge in its natural and authentic contexts (Learning Theories 2013). They are initially viewed as novices, on the peripheries; this is termed legitimate peripheral participation (Lave and Wenger 1991, 29; Learning Theories, 2013; Zuengler and Miller 2006, 41). As the learner becomes involved in a community of practice they acquire certain beliefs and behaviours and become increasingly engaged and involved (Lave and Wenger 1991, 29; Learning Theories 2013). Lave and Wenger (1991, 29 and 40) initially developed their ideas in response to understanding and theorizing apprenticeship learning, but what they

discovered was their theory of peripheral participation described learning in a range of contexts whether intended or not.

The application to archaeological education is clear since it often occurs within an archaeological (and often real) context and thus through this theory archaeological education may be differentiated from museum learning where instead a constructed context is created. Therefore, the location of archaeological education in an authentic context may characterise this theory. However, it may be a more suitable model for community archaeology rather than archaeological education: often archaeological education programmes are based around one-off, short visits. These short timescales inhibit the movement of pupils from the periphery to the centre. However, it is not uncommon for this movement from inexperienced to expert to occur during the life cycle of a community archaeology project and therefore, this theory may be particularly suitable for understanding learning in extended archaeological education projects.

Constructivism as an epistemological theory

What this discussion indicates is that a range of ideas from educational constructivism and socio-cultural perspectives may be relevant for understanding archaeological education. The analysis of archaeological education through the lens of constructivism (and social constructivism) necessitates an appreciation of the different ideas within the spectrum and an appreciation of the different uses of terminology and debates within the field. Also these theories shed light on both how archaeological thinking of

pupils might be structured and how learning takes place as well as providing food for thought for archaeological educators in terms of how to structure programmes, assess their effectiveness and understand their value.

However, what my account has not covered so far is the connection between constructivism and epistemology, essentially how knowledge is constructed within archaeology and archaeological theory. This is highly relevant because one of the themes running through this thesis is that the different epistemological standpoints of different archaeological theories influence attitudes towards public engagement and how public engagement is delivered (which includes archaeological education).

Holtorf (1997) has discussed the influence of constructivist ideas on the understanding of science and he argues that within a constructivist framework, "The notion of gaining knowledge about an ontological reality, past or present, cannot be maintained". He goes further by saying that for archaeology specifically a constructivist perspective has two important implications (Holtorf 1997). First, if all knowledge is constructed, then there is no 'past' since there have always been multiple ways of knowing and thus the job of the archaeologist becomes to reconstruct past constructions. Second, our understandings of the 'past' are constructed by our present day influences and in fact the very concepts of the 'past' and 'time' are constructed. As such an additional task for archaeologists is not just to construct past constructions, but also to study the constructions of archaeologists. Holtorf (1997) frequently refers to the work of prominent post-processualists such as Hodder and Shanks and Tilley and in fact the same epistemological ideas which underpin constructivism and social

constructivism, such as the individual nature of knowledge, the social nature of reality, empiricism and relativism do influence their ideas (Hodder 1991a [1986], Shanks and Tilley 1987). Also the influence of semiotic theory on post-processual archaeology (e.g. Shanks and Tilley 1987, 99) and the idea that the archaeological record can be read as a text is well documented (e.g. Hodder 1991a, 153-154 [1986]) and thus there is a correlation between an emphasis on language, meaning, and culture between post-processual archaeology and social constructivism. Given these synergies it is unsurprising that Copeland (2004a, 134) has made a link between post-processual archaeology and constructivism.

What has been set out thus far indicates that post-processual archaeology shares some commonality with constructivism and this sort of shared understanding can be found across a range of social science disciplines. However, Johnson (1999, 45) made an explicit link between the influence of social constructivism in terms of the relativism versus positivism debate in science and how this debate influenced the development of processual and post-processual archaeologies. Epistemological constructivism and social constructivism has had a significant influence of the understanding of how scientific and mathematical knowledge is constructed (e.g. Kukla 2000) and within these debates the nature of scientific objectivity has been questioned. Thus the scientific basis for processual archaeology is no longer a question of objectivity and positivism over relativism, but a question of how constructions (scientific or otherwise) are formulated (Johnson 1999, 46).

It is true that within archaeological theory, particularly post-processual and interpretative archaeology, the influences on archaeological knowledge have been discussed in terms of power, gender, politics and culture, but what constructivism and social constructivism can offer archaeology is a way of conceptualising how (archaeological) knowledge is constructed. Thus, in terms of archaeological education constructivism has two functions: first, through educational constructivism there is a potential to use the ideas discussed here to understand, deconstruct, and evaluate different archaeological education programmes; second, epistemological constructivism and social constructivism should not be viewed as alternative but parallel theories, which have the potential to be used with archaeological theory to deepen the understanding of archaeological knowledge and interpretive efforts.

Experiential Learning Theory

Dennick (2008, 52-53 [1999]) indicates that Experiential Learning Theory (ELT) has parallels with constructivism. In particular Dewey's ideas about the importance of experiential learning influenced Kolb and both these men were instrumental in the development of ELT (Dennick 2008, 53-54 [1999]; Griffin 1992). The development of ELT was also influenced by the work of Jung and Rogers (Dennick 2008, 53-54 [1999]). ELT often relates to adult learning in an environment which is not expressly designed for learning, for example it may relate to work based learning situations (Bartlett and Burton 2009, 133 [2007]); however, Richards (1992, 158) also refers to a particular form of ELT

termed adventure based experiential learning which was developed to describe outdoor learning such as outward bound education. Essentially, the process begins with a concrete experience, the learner will then reflect on the experience to achieve abstract conceptualisation. Within the model for adventure based ELT the process and terminology are slightly different. The cycle starts with separation, a willingness to leave old ideas behind followed by an 'adventure', termed an encounter, the learner will then return, that is reflect or recall and this leads to reincorporation of new ideas (Richards 1992, 158-161). ELT may be particularly attractive in terms of the understanding of the value of archaeological education since Griffin (1992, 31) states ". . . experiential learning is widely regarded as empowering learners, perhaps in ways that non-experiential learning does not". However, although Griffin makes a clear link between ELT and personal empowerment he questions its capacity to deliver social change and goes on to draw a very clear distinction between the ideas of Dewey and the participatory and emancipatory ideas of Friere (Griffin 1992, 31-32).

Although, ELT was chiefly developed to describe adult learning it is also relevant to archaeological education, particularly since the theory accounts for learning in non-traditional settings and in its adjustment to apply to outward bound education settings. Hooper-Greenhill (2007, 36) has stated that ELT has been very important in museums and Hein (1998, 31) has stated that experiential learning is useful model for object based learning. Thus, this may also be applied to working with archaeological artefacts (which may occur in a museums context, on site, or in the classroom). Keen (1999) has specifically discussed the active experiential component of the

archaeological education programmes at the Cranborne Ancient Technology Centre in Dorset. Keen actually quotes a letter from a teacher which states “Young children (our school goes up to 9 years) need concrete experiences in order to come to understand abstract ideas. . .The Ancient Technology Centre has a vital role in providing the concrete experiences of the past.” (Roberts quoted by Keen 1999, 238). Therefore, in terms of archaeological education ELT will be characterised by experiences, followed by reflection. There should be further evidence of the impact of those experiences and a consideration of how they will influence future thinking or behaviour for the experiential learning cycle to be fully completed.

A word of caution should be offered in terms of confusing experience and active learning with any physical activity (hands-on learning). Although hands-on learning may deliver experience this is not always the case and it is possible that experience may involve little or no physical activity but does engage learners in mental activity (Hein 1998, 30-31). Within these parameters desk based problem solving could constitute experience and therefore problem solving approaches to archaeological education need not involve a physical activity and may still be classified as drawing upon ELT. Furthermore, as Richards (1992, 161) notes outward bound education is traditionally very poor in ensuring that pupils reach the reincorporation stage, since follow up is often neglected. Richards (1992, 161) puts forward the argument that the process of the early stages is empowering enough to ensure that pupils take on board the lessons and reach the reincorporation stage unaided. This appears to be a compromise and an assertion that

cannot be reinforced with evidence. However, it potentially highlights a pitfall for archaeological education programmes.

Learning Styles Theory

In the most basic terms learning styles can be categorised into three types: auditory learning (learning by listening), visual learning (learning by seeing), and kinaesthetic learning (learning through action). This classification of learning styles is known as the VAK model (Bartlett and Burton 2009, 130 [2007]). A criticism of this simplistic model is precisely that, it is too simplistic. In reality people change their learning style dependent on the situation they are in or commonly they use more than one style (Bartlett and Burton 2009, 130 [2007]). Kolb who has been highly influential in the development of learning styles theory developed a more complex model (Bartlett and Burton 2009, 132 [2007]). He divided learning into two areas, perception and process (Bartlett and Burton 2009, 132 [2007]; Bentham 2002, 102). He further divided these two areas into spectra with abstract and concrete thinking at either end (Bartlett and Burton 2009, 132 [2007]; Bentham 2002, 102). This model classifies four types of learner: divergers (those who understand information concretely), convergers (those who understand information abstractly), assimilators (those with a preference for problem solving activities) and accommodators (those with a preference for experimentation and flexibility) (Bartlett and Burton 2009, 132 [2007]). Honey and Mumford built upon Kolb's work and devised a questionnaire which could be used to ascertain individuals' learning styles (Bentham 2002, 103; Dennick 2008, 59 [1999]). Ideas about learning styles were typically

developed within the context of adult learning but that does not mean that the ideas are not also relevant to children's learning. The conscious acknowledgement that everybody learns in different ways can also be useful in terms of pupils and their teachers' understanding how learning takes place and can give them a shared vocabulary to discuss learning (Meyer *et al* 2008, 25).

Burton and Bartlett (2007, 130) have clarified thinking about learning styles in saying that they are habitual ways of presenting or processing information and actually this is just one aspect of conceptualising learning. They also describe learning strategies, which are different ways a learner approaches a task, learning approaches (the motivation for and attitude to learning) and learning preferences, which pertain to environmental preferences (e.g. light or dark study areas).

As outlined in Chapter 2 archaeology normally features in pupils' formal education as part of their history studies (see p. 83). History teaching traditionally requires pupils to learn from documentary sources and tends to be focussed towards pupils with particular learning styles, preferences and approaches (which vary depending on which model for conceptualising learning styles is chosen). However, as Hooper-Greenhill (2007, 174) argues,

It is certainly highly probable that pupils who 'shine' unexpectedly in museums are reaping the benefit of being able to use a range of learning styles and resources that are not always available in the classroom

What Hooper-Greenhill is pointing to is that museum learning allows pupils to engage using a broader skills set than is traditionally associated with classroom teaching and this is an idea that may be reasonably extrapolated to archaeological education.

It is certainly true to say that it is possible to take a range of approaches to working with and investigating archaeological material and thus there is scope for learners with different suites of approaches, preferences, styles and strategies to get involved and this approach is advocated by Ellick (2008, 264). In some senses though it is not the inherent quality of the subject but the style of the teacher that is the main factor in whether or not a learning styles theory is applied; teaching strategies can be devised for history topics with a narrative theme that take account of alternative styles of learning. What is perhaps most relevant is that different approaches may lead pupils to different conclusions due to the fact they have focussed on different methods of investigation, whereas the historical narrative approach has little scope for the acceptance of multiple interpretations.

Therefore in terms of archaeological education programmes an emphasis on different learning styles would be characterised by opportunities for pupils to engage through different senses, making use of visual stimulus, sounds and language, tactile exhibits and movement. Kolb's learning styles framework would also be characterised by problem solving opportunities, opportunities for experimentation, reflection and experience.

Multiple Intelligences Theory

The idea of intelligence testing goes back to the early twentieth century (Fontana 1995 [1981], 97) and most people are familiar with the idea of Intelligence Quotient (IQ) as a means of understanding how intelligent someone is. However, there are other ways of understanding intelligence as

clusters of intellectual abilities (Bartlett and Burton 2009, 141 [2007]; Fontana 1995 [1981], 103) and thus these models refer to intelligences in the plural rather than thinking about intelligence as a singular entity. There are models which recognise three different intelligences (Bartlett and Burton 2009, 141 [2007]) four intelligences (Fontana 1995 [1981], 103) and seven or eight different intelligences (Gardner 1993a). It is this last model, known as multiple intelligence theory which is of particular interest here, since it has been referred to by archaeological educators (e.g. Henson, Bodley and Heyworth 2004, 37).

Multiple intelligence theory was developed by Gardner and is based on the premise that people have different cognitive strengths and styles (Gardner 1993a, 6). Specifically Gardner identified eight different 'intelligences' (initially he identified seven different intelligences and modified this to include naturalistic learning) and asserted that everybody possesses all of these 'intelligences' in different ratios. The eight 'intelligences' are: 1. verbal/linguistic; 2. logical/mathematical; 3. visual/spatial; 4. bodily/kinaesthetic; 5. Musical; 6. Interpersonal; 7. Intrapersonal; and 8. naturalistic (Bartlett and Burton 2009, 142 [2007]; Gardner 1993a, 8-9; Mitchell 2008, 74 [1999]).

Each of the intelligences is characterised by a set of learning behaviours. For example, pupils with a preference for reading and writing would be seen to have a strong preference for verbal/linguistic learning, or pupils with a preference for interpersonal learning will enjoy and respond well to group work. These ideas have been applied to heritage education.

Hooper-Greenhill (2007, 34) has said that the concept is useful in museums

and the idea is referred to on the ILfA website (MLA 2008a) to help educators understand how their programmes and resources can be tailored to meet the differing needs of learners. Gardner himself advocates museums learning in pupils' education (Gardner 1993b, 202 [1991]). Davis (2005, 47) also quotes Gardner's ideas in her discussion of archaeological education in terms the different ways that pupils develop their understanding.

Multiple intelligence theory has also proved to be very popular amongst school teachers (Bartlett and Burton 2009, 142 [2007]; Mitchell 2008, 74 [1999]) and thus is important and relevant within this thesis. One possible reason for the popularity of Gardner's ideas is that he acknowledges a range of skills and in doing so sought to empower a wider spectrum of learners: Gardner (1993a, 9) said, "People who are helped to do so, I believe, feel more engaged and competent, and therefore more inclined to serve society in a constructive way".

It is interesting that in terms of references to alternative models of intelligence within the discussions about archaeological or museums education it is always Gardner's ideas about intelligence which are chosen, as opposed to Sternberg's or those expressed in the Stanford-Binet Scale. This is potentially a response to the way that schools have embraced Gardner's ideas but perhaps also due to confusion between his ideas and learning styles theory (e.g. see Henson, Bodley and Heyworth 2004, 37). This is particularly evident within the ILfA website where learning styles are referred to alongside a questionnaire which is designed to categorise learners intelligences using Gardner's model (Marcen 2004, 7).

This confusion may have partly arisen due to the similar language used to describe Gardner's eight intelligence categories and that used to describe the three different learning styles using the VAK model, i.e. both use the terms kinaesthetic and visual. Furthermore, there has been work to bring learning styles theory and multiple intelligence theory together and develop an integrated model (Bartlett and Burton, 2009, 142 [2007]).

Archaeological education is likely to be influenced by educational theories which influence classroom practice and thus the use of learning styles theory and multiple intelligence theory may be unconscious on the part of archaeological educators. Furthermore, intelligences and learning styles may be practically characterised in the same way. For example, teachers may present opportunities for linguistic learning, and therefore pupils use linguistic intelligence to engage in those learning opportunities. This possibility of confusion and the unconscious adoption of theoretical concepts strengthen the argument for the importance of deconstructing and understanding theoretical basis for archaeological education.

Notwithstanding the apparent popularity of Gardner's ideas, multiple intelligence theory has attracted significant criticism (Meyer *et al*, 2008, 25). One criticism is that he has marketed ideas already in existence as a new piece of work (Mitchell, 2008, 74 [1999]) and that essentially the idea that everybody recognises that they have strengths and weaknesses in different balances is intuitive and not really a theory in itself (Bartlett and Burton 2009, 142 [2007]). Another is that Gardner did not adequately test his theory and therefore he has not built up a body of evidence to prove his claims (Bartlett and Burton 2009, 142 [2007]).

It would be entirely possible to analyse an archaeological education programme on the basis of multiple intelligence theory by looking for opportunities for learning behaviours but the criticisms of Gardner's work suggest that all activities may be characterised in terms of multiple intelligence, and that such an analysis it would not necessarily tell you anything important about the learning that is taking place or how the activity is structured to promote learning. However, if Gardner's claims of empowerment are correct then an archaeological education programme which is based upon his ideas may lead to more engaged, confident learners and this is important in terms of the question of value. It is also likely that in practical terms many of the same features of archaeological education would characterise approaches consistent with learning styles theory as multiple intelligence theory. For example, the use of language, physical movement and images could be ascribed to either theory. However, additionally a multiple intelligence led approach would also involve a possible emphasis on logic and numbers and music rhythm and sound. Approaches which enable pupils to work alone or together and to work with the natural environment may also characterise a multiple intelligence led approach.

Didactic approaches

The ideas described above are almost wholly progressive and have somewhat been viewed as a collective alternative to more traditional educational methods. However, through the curriculum more traditional didactic approaches have also had an impact upon archaeological education and will now be considered. Bartlett and Burton (2009, 23-25 [2007]) have

linked classical humanism and rationalism together as an ideological stance within educational theory that broadly relates to the idea of an emphasis on external knowledge (which can be directly contrasted with the internalised view of the constructivists). The ideas behind classical humanism have been influenced the works of Plato (Dennick 2008 40 [1999]), e.g. one of the central tenets of classical humanism is the idea put forward by Plato that people fall naturally into one of three groups: workers, soldiers or leaders, and that to maintain order in society people should operate within their natural groupings (Bartlett and Burton 2009, 21 [2007]). Similar views were expounded by Hobbes in the 17th century, who believed that people are essentially savage, but do have the capacity to thrive as a society if they are taught (and follow) externally imposed sanctions and rules (Bartlett and Burton 2009, 21 [2007]). Plato's ideas also shaped rationalist thinking. One of the key ideas behind rationalism is that knowledge is inherent and that reason is needed to unlock knowledge, because within this view sensory experience is unreliable (Dennick 2008, 40 [1999]).

These ideologies have shaped education in terms of both how the curriculum is taught and what the curriculum is. Specifically, the idea that people can be grouped into workers, soldiers and leaders influenced the 1943 report entitled Curriculum and Examinations in Secondary Schools in terms of the rationale for creating a tripartite education system comprising grammar schools, technical colleges and secondary modern schools (Bartlett and Burton 2009, 65-66 [2007]). Each of these types of school would cater for one of the three types of people with secondary moderns delivering only basic educational instruction (Bartlett and Burton 2009, 65-66 [2007]). Indeed

the initial development of state funded education in England can also be associated with this view of education: early reformers felt that the church model of education designed to inculcate the working classes with strict moral values and an acceptance of the social order could be a useful tool in maintaining social control and in mitigating the issues which had been created through urbanisation associated with the Industrial Revolution (Bartlett and Burton, 2009: 62 [2007]; Gillard 2007a; also see p. 183). In short, education in these terms is not about learning how to think or developing understanding, but merely about learning the facts the teacher imparts. This position is reinforced by rationalist ideas which are based on the premise that knowledge is created within the mind (Dennick 2008, 41 [1999]). Therefore, under these terms it becomes obvious that there are facts to learn and the best means of doing this is by rote following instruction from a knowledgeable teacher.

It is manifest that the calls for 'back to basics' education with a focus on reading, writing and arithmetic (Sheldon 2011, 1) are influenced by rationalist ideas and that the National Curriculum has its political origins in a shift towards classical humanism and a backlash against progressive ideas (Bartlett and Burton 2009, 199-200). Given the discussion thus far which has emphasised the links between archaeological education, progressive educational theories, and the acceptance of multiple perspectives, it would be possible to conclude that there is no place for archaeology within an education system based around traditionalist education ideas and this position is to some extent justified by the reality. It should be noted that despite the political aims of government curriculum designers other

educational influences have shaped modern teaching and learning, but yet it is also perfectly possible to deliver archaeological education which conforms to traditionalist ideals.

The empowering potential of archaeology and its alignment to progressive ideas has been a strong driver for undertaking this research, but archaeology is not always a liberal discipline. In fact it has been argued by some that archaeology is an elitist pursuit (Lee Davis 1997, 85) and that museums support and reinforce this view (Pearce 1997, 16). As Preucel and Hodder (1996, 519) said, "For culture historical archaeologists, knowledge about the past can elucidate, civilise and teach about progress. . .". There is an unsavoury implication within this quotation that archaeologists, as gatekeepers to the past, can decide what is civilised and what progress is and as Meskell (1998, 2) points out "The past has been deployed by Western archaeologists to construct the non-West. . .". Therefore, there is a clear potential for archaeology to promote a view of society consistent with Plato's leaders, soldiers and workers model and in fact this may be what is happening when archaeologists hold tightly to their role as expert under a processual framework.

Hodder (1991a, 172-173 [1986]) has also described the general situation whereby middle class audiences are more likely to reflect and accept received archaeological wisdom whereas there is less concordance between the ideas of archaeologists' about the past and the working classes'. The previous hostility between archaeologists and metal detectorists (Merriman, 1998, 21) and tensions between archaeologists and re-enactors (Smith 2006, 32) are examples of this and the use of

archaeology to support traditionalist teaching which ignores the cultural heritage of many people in turn maintains the elitist view of archaeology.

In terms of archaeological education programmes didactic approaches would be characterised by a focus on historical narrative, particularly one which aggrandises power. It may follow a lecture style. It would be developed around delivering facts and figures (although these may be facts concerning the authority of the scientific process of archaeology), may involve rote learning and leave little room for pupil input. Hein (1998, 25-29) has described this method of learning as a didactic, expository model. This model for learning is related to a behaviourist paradigm will follow a narrative structure; alternative interpretations are unlikely within this model.

Archaeological education programmes devised along these lines may have success in instilling archaeological messages and ensuring that pupils learn the objectives the archaeologists (and possibly the teachers) have determined, but they may closely parallel classroom teaching efforts in their instructive nature thereby mitigating any advantages to engaging with learning in a non-traditional context.

3.3 Understanding and analysing archaeological education from a theoretical standpoint

The explanations of the various theories and their relevance to archaeological education set out above show that there are theoretical crossovers between education and archaeology. What this indicates is that archaeological education has the potential to be theoretically malleable.

There are potential connections between a range of archaeological and

educational theories. Some of these connections have been discussed by other authors (such as the links between constructivist ideas and post-processual archaeology or The New Archaeology and The New History); others still have been discussed in terms of museum learning and may also have an application to archaeological education although their validity has not necessarily been explicitly discussed by others. However, in terms of archaeological education for the most part these theoretical ideas have been discussed hypothetically or in ideal situations. Very little work has been undertaken up until this point to analyse how the actual practice of archaeological education can be deconstructed in terms of the range of potential theories.

The method for analysing archaeological education against the theories discussed in this chapter is set out in Chapter 5, but in summary this involves analysing the data against characteristics features of each of the theories. These characteristics have been referred to in the sections above, but for the ease of analysis these defining features in terms of how they might characterise archaeological education have been organised into Table 2 below. It should also be noted that although the theory of semiotics was discussed above it has been omitted from the table below. This is because semiotics the influence of semiotics has been mediated through other theories whose characteristics have been identified as described in the sections above.

Theory	Characteristic/feature
Processual archaeology	A focus on skills.
	An emphasis on data
	An emphasis on the scientific method
	An emphasis on the professional status of the archaeologist.
Post-processual archaeology	A focus on agency and the role of the individual in the past
	The presentation of alternative interpretations/opportunities for pupils to consider alternative ideas.
	Opportunities to use empathy to develop ideas about the past
	Consideration of context for interpretation
Constructivism	Allowing pupils to construct ideas through personal discovery.
	Opportunities to create cognitive dissonance and achieve cognitive equilibrium.
	Early opportunities to identify pupils' prior constructions
	Free choice environment which enables pupils to choose what they engage with and how.
Social Constructivism and socio-cultural perspectives	Group discussion
	Use of active questioning and role-play initiated by the archaeological educator
	A problem-solving approach as opposed to discovery learning
	A focus on big concepts such as change or context.
	Evaluating pupils' constructions through experimentation.
	Using language to provoke questions and further discussion
Experiential Learning Theory	Site activities and programmes in an authentic context.
	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.
Learning Styles Theory	Evidence that the experiences have had an impact upon the pupils' future actions/ideas.
	Activities and interpretation which target a range of different learning styles including opportunities for:
	Visual exploration
	Auditory information
	Tactile and physical exploration
	Opportunities for experience
	Opportunities for reflection
Problem solving activities	
Multiple Intelligence Theory	Experimentation
	Activities and interpretation which encourage pupils to engage in range of different 'behaviours' to explore ideas including:
	Using words and language
	Using logic and numbers
	Using music, sound and rhythm
	Physical movement
	Using images and space
	Considering other peoples' feelings and working with others
	Working alone and considering one's own response
Using the natural environment and working with animals.	
Didactic approaches	Rote learning.
	Lecture style
	Focus on facts and figures
	Little room for pupil input
	A narrative structure.

Table 2 How different theories might characterise archaeological education programmes.

3.4 Conclusion

This chapter contains a description of the range of theories drawn from education and archaeology which are relevant to archaeological education. The examination of these theories has been drawn from a general understanding of those theories and hypothetical and tentative links made by other authors, since the analysis of these ideas in terms of their real application to archaeological education is limited. The discussion has also referred to museum learning, since there has been some analysis of the theories presented which may also be relevant to archaeological education.

What has also been set out is a framework for the analysis of theories which underpin archaeological education since all the links between archaeological education and its underlying theories have not yet been subject to investigation and analysis. This framework builds upon the ideas and observations made by other authors but brings those ideas together and it has been used to analyse the experiences of the pupils engaging with archaeological education set out in Chapter 6. The importance of this work should not be understated as Bartoy (2012, 558) has commented:

If public archaeology is to emerge as a true sub-discipline of archaeology, the first step towards that professionalization will be archaeologists becoming archaeology educators, who are not only conversant in educational theory but also implement educational best practices.

Chapter 4

Archaeological Education:

The Political Context

4.1 Introduction

It is important for those of us who manage, study and present the past to be aware of how the past is understood within the context of socioeconomic and political agendas and how that influences what is taught and how it is valued, protected, authenticated and used. (Jameson and Baugher 2008, 7).

Having outlined the practical context and the theoretical context for archaeological education in the previous two chapters, the political context is set out in this chapter. The link between the last two chapters and the research questions is clear: this thesis is specifically devoted to developing a greater understanding of how archaeological education in practice can be deconstructed against the range of theories. The reasons for exploring the political context for archaeological education are perhaps not quite as immediately obvious, however my position is that it is vitally important for three reasons. First, archaeological education is shaped by the political context: both archaeological and educational legislation which effectively delineate the boundaries within which archaeological education takes place is developed within an overtly political sphere. Second, the motivation for archaeologists to become involved in archaeological education can be attributed to one of two models, the multiple perspectives model and the

deficit model. In particular the multiple perspectives model is linked to post-processual archaeology which posits archaeology as a political discipline. Third, Research Question 2 sets out to identify the value of archaeological education for pupils. This question is further broken down into research objectives and the second objective associated with this question is framed towards exploring the potential for archaeological education to be empowering. The idea that archaeology can have an impact upon empowerment and social justice has been influenced by the debate around the value for other forms of archaeological engagement and indigenous archaeology which recognise the direct link between archaeology and politics. Thus this political context and the debate around the interface between the politics of archaeology and education are highly relevant to this thesis.

The political dimension of archaeology has been well discussed by numerous authors and the majority of this debate is outside the scope of this thesis, but it is relevant to highlight the role that archaeology has in maintaining and subverting power structures in terms of the exploration of the empowering potential of archaeological education. This area of thought is particularly pertinent to discussions about outreach and engagement as it addresses fundamental questions of why archaeologists should engage with the public and what aims they should seek to fulfil through engagement. This discussion has been expanded beyond the immediate confines of archaeological education to the wider debate as there has been little dedicated research around this aspect of archaeological education and because there are some useful insights from the wider field. Therefore, the

first section of this chapter will be devoted to this discussion and will give particular consideration to politics and power relations related to a number of key archaeological engagement sub-disciplines.

Next, the educational context for state funded compulsory education will be considered. A succinct outline of the subject matter has been offered since a detailed analysis of the politics associated with state funded compulsory education is also outside the scope of this thesis. What has been described and discussed is the role of compulsory education in maintaining power relations and crucially the relationship between the history curriculum (which is where archaeology is most frequently referred to by teachers) and ideology. It is worth stating that the reason for focussing on state funded compulsory education as opposed to more participatory forms of education, such as informal learning and home education is that there is a potential role for archaeological education to promote social justice by working to address the power imbalances created by the political manipulation and direction of state funded education; informal learning and other forms of education such as home learning operate outside the specific political context of interest here.

The potential for archaeological education to be aligned to social justice issues is related to why archaeologists get involved with educational work. These ideas, which have been referred to previously throughout the preceding chapters of this thesis are more fully explored here. Specifically the deficit model and the multiple perspectives model for archaeological education are described and the debate related to each side of the argument has been laid out and discussed. This includes an acknowledgement of the

provenance of the terms and a clear exposition of what the terms mean specifically for archaeological education.

4.2 Archaeology, politics and power

The past has been deployed by Western archaeologists to construct the non-West, to forge ourselves a cultural lineage and to carve out opposing identities. It has never been a neutral field of discourse. Meskell (1998, 2)

As discussed in the previous chapter post-processual archaeologists have argued that interpretations of the past are constructed and that these constructions are influenced by contemporary issues including politics (see pp. 119-120). Therefore the acknowledgement of the inherently political nature of interpretation goes hand in hand with an epistemological stance which rejects positivism. In turn the rejection of positivism and objective truth is also related to the acceptance of the validity of multiple perspectives. For archaeologists who take this stance it becomes apparent that archaeology can be used politically as a tool to both uphold and subvert the *status quo* and dominant power structures (Skeates, Carman and McDavid 2012; Molyneaux 1994; Smith 2006). This statement sets the tone for the following discussion in which archaeology has been framed as a series of constructed interpretations which reflect contemporary political concerns.

An awareness of the political nature of archaeology is a relatively recent innovation, particularly when compared to the development of such an awareness amongst other social sciences. As Gadsby and Chidester (2012, 514) argue, archaeology was dominated by a processualist thinking and a science-based positivist paradigm throughout the 1960s and 1970s despite

the radicalisation of other social sciences and humanities at the time. It is also true that during this period museums education was pushing forward the debate about the nature of interpretation and that ideas derived from semiotics had had significant influence on interpretation in museums and museums education (Roberts 1997, 57). Scientific paradigms associated with processualist thinking finally began to be challenged in the 1980s with archaeologists such as Hodder (1991a [1986]), Shanks and Tilley (1987) and Trigger (1984) leading the charge. By rejecting positivism and setting out a post-processualist critique these archaeologists paved the way for a re-examination of the validity of archaeological authority. Interestingly these changes in archaeological thought started to take shape around the same time that archaeological practice was becoming professionalized (Jeppson 2012, 591) and this reveals a dichotomy between archaeological thinking and archaeological practice which has been observed by others (e.g. see Merriman, 1998, 20).

The idea that interpretation is political and that other views are valid is not the sole preserve of post-processualist archaeologists and archaeological perspectives (which pre-date post-processualist thinking), such as Marxist archaeologies and feminist archaeologies also acknowledge these ideas (McGuire 2008, 16; Smith, L. 2004, 44). However, since the advent of post-processualist thought there has been a rich debate about the role of archaeologists as arbiters of the past and if, how, and why, they should involve communities and individuals. Naturally this debate concerns archaeological outreach and communication about archaeology and this includes archaeological education. To a certain extent this debate is about

why archaeologists should engage with the public and this can be boiled down to the deficit model argument versus the multiple perspectives model argument, i.e. outreach which delivers archaeological messages and serves the needs of archaeologists or outreach designed to include, value, and empower communities and individuals. A fuller discussion of these arguments and their relevance to archaeological education can be found in section 4.4 of this chapter, but at this point what is relevant is that there has been an acknowledgement (although not complete adoption of the idea) on the part of archaeologists of the political nature of archaeology and the validity of alternative perspectives.

Some archaeologists have argued that it is not only possible to accept multiple perspectives but that it is a moral responsibility (e.g. Jameson and Baugher 2008, 7; Shanks and Tilley 1987) and by implication archaeologists who do not consider alternative perspectives may effectively be contributing to cultural oppression. In his seminal paper, 'Alternative Archaeologies: Nationalist, Colonialist and Imperialist', Trigger (1984) put forward the idea that archaeology has been used to construct and develop nationalism and power structures which oppress individuals, communities and even entire nations.

The idea that archaeology and archaeologists have played a significant part in creating and maintaining oppressive power structures is unpalatable to say the least and therefore it is unsurprising that many archaeologists have been keen to re-address these power inequalities (Skeates, Carman and McDavid 2012). Thus, just as archaeology has been (and is) used to maintain power inequalities, several authors have

commented on the potential for engagement with archaeology to be an empowering experience for individuals and communities (e.g. Franklin and Moe, 2012, 575; Funari 1994, 130; Henson 2004a, 30; Jeppson, 2012, López and Reyes 1994, 143; Meskell 1998, 5). Molyneaux (1994, 2) and Bartoy (2012) have discussed how the educational engagement can be specifically well suited to this aim and similarly Hooper-Greenhill (2007, 188) has identified the potential that museum learning has for pupils to develop a more positive view of themselves.

Through post-processual analysis the idea that archaeological practice and interpretation is political action has been embedded (Little 2012, 406; McGuire 2008, 16). In recognising this archaeologists have begun to consider their how they should exercise their moral and ethical responsibilities (Skeates, Carman and McDavid 2012, 5), and these debates have been brought into sharp focus in relation to the various archaeological sub-disciplines related to public engagement of which archaeological education is but one. Although, the political nature of interpretation has been well discussed it is still a relatively recent innovation in archaeological thought which in terms of archaeological practice still competes with a focus on a science based approach. Thus, in order to develop a full picture of the role of archaeology in terms of promoting and addressing inequalities I have considered it pertinent to examine these ideas across a range of archaeological engagement sub-disciplines which have been set out below. Museum learning has also been included within this section as although museum collections are broad and cover areas other than archaeology it would be remiss not to refer to it here.

Public Archaeology

The term 'public archaeology' was defined in Chapter 2 of this thesis and although the term has been used by others to describe archaeological engagement and outreach in general, here it broadly corresponds to cultural resource management (CRM), in other words planning focussed archaeological conservation and fieldwork. Thus the discussion here of power and politics relates specifically to this definition.

In political terms public archaeology has two faces (Jeppson 2012, 581-582; Smith 2006). One face gives the appearance of a liberal, even progressive discipline. The other face is authoritative, scientific, impartial and inherently conservative (Jeppson 2012, 581-582). This is highly relevant to the discussion of archaeological education in terms of the role that archaeology can play in empowering pupils, since this idea is linked to the assumption that archaeology is focused towards such liberal goals. However, even when archaeologists state this is their aim their actions may reinforce the opposite as will be demonstrated.

The notion that archaeology is liberal and progressive can be attributed to two ideas: first is that archaeology is edifying and aligned to liberal education (Smith, L. 2004, 85) and second that archaeologists tend to view themselves as liberal and progressive (Jeppson 2012, 581). However, in reality the impact of these ideas is either diluted or negated by conservative archaeological practice and this was alluded to previously when the dichotomy between archaeological thought and archaeological practice was highlighted through reference to Merriman's (1998) thoughts. There is a third related idea that many archaeologists make no pretence to liberalism,

but also do not accept that archaeological is political. They simply believe that archaeological practice and interpretation is scientific and therefore impartial and apolitical. This argument has been thoroughly refuted through the post-processualist critique and in fact it has been argued that that such a position reinforces the *status quo* politics by obscuring them (McGuire 2008, 16).

The first idea that archaeology is a liberal discipline in part stems from the fact that early efforts to display archaeological material in museums were linked to the liberal education movement (Smith, L. 2004, 85). However, closer examination shows that often these liberal education efforts were delivering messages about nation and empire and reinforcing the *status quo* (Roberts 1997; Smith, L. 2004; Smith 2006). This critique of early attempts to present and interpret archaeology has been thoroughly discussed and is widely accepted, but in practice the appropriation of archaeology to serve the purposes of promoting a 'national myth' has not been universally rejected (Smith, L. 2004; Smith 2006). Thus, archaeological practice can be seen to have been 'commodified' to suit political ideas about nation (Smith, L.2004, 46) and those whose histories fall outside this scope are effectively excluded (e.g. Garrison, 1990).

The second idea is that archaeologists are themselves liberal and progressive is associated with the bearded, sandal wearing half hippy, half academic view of an archaeologist which endures in both the public's mind and that of archaeologists themselves (Jeppson 2012, 581-582). The public mascot for the Hampshire and Wight Trust for Maritime Archaeology, Professor Archie O'Logy (displayed below in Figure 1) is an example of an

image of an archaeologist as an absent minded, benign, bearded academic. The stereotype is reinforced by two factors. First, many archaeologists intellectually subscribe to progressive views although in reality they may unconsciously implementing a more conservative approach to archaeology (Cole 2012, 76-77). Second archaeologists have a role as public servants (although CRM archaeology tends to be funded by developers, this obligation is enforced and regulated through the state) and in the USA at least, this association with centralised regulations tend to be associated with more liberal politics (Jeppson 2012, 582).



Figure 1 Professor Archie O'Logy, the mascot for the Hampshire and Wight Trust for Maritime Archaeology © Hampshire and Wight Trust for Maritime Archaeology.

Thus, there seems to be a confusion regarding the general politics of archaeology. On the one hand it has a liberal image, but in practice struggles to live up to it. The tension between archaeological thought in academic circles and archaeological practice is illustrated by my critique of the Southport Report offered in Chapter 2 (see pp. 68-69). At face value there is

a clear theme which runs through the report that community involvement and outreach associated with planning led archaeology is important, but then conversely this aim is continually undermined by statements about the authority of archaeologists and archaeological methods. Watkins (2012, 662) acknowledges that a dichotomy between archaeological thought and archaeological practice exists and uses an alternative term for CRM which seeks to expose its true nature: he uses the term compliance archaeology. The word compliance is significant and loaded. It suggests authority, enforcement and compulsion as opposed to inclusion.

The authority of compliance archaeology, to use Watkins' term, is linked to the idea of the scientific impartiality of the archaeological method: although many archaeologists accept the influence of multiple perspectives in interpretation, archaeological practice is still largely led by processual methods (Skeates, Carman and McDavid 2012, 5) and so despite the fact that the fieldwork process is itself interpretive archaeology it retains its security blanket of scientific authority. Furthermore, even though many archaeologists accept the validity of multiple perspectives there is a reticence to 'let go' of archaeological authority which is used as a yardstick to assess the relative worth of alternative perspectives (Hart 2011; Johnson 1999, 172). This archaeological authority is reinforced by the technical language that archaeologists use which also disconnects and excludes others from archaeology (Funari 2008, 217). Essentially, the role of archaeologists as authoritative 'protectors' of the past creates a power imbalance between archaeologists and the public (Jeppson 2012; Smith 2006).

Therefore, despite thirty years of post-processualist critique, the objective stance of the scientific paradigm endures with respect to archaeological practice. The idea that archaeology is apolitical is even maintained despite the clear link between CRM and legislation which is created in an overtly political arena. Public archaeology is in denial. Archaeologists cling to the liberal image and invoke arguments derived from theoretical contexts to make claims about the potential for archaeology to empower citizens. Yet, the very practice of public archaeology is effectively directed by politicians and this goes unchallenged by the adherence to a positivist paradigm. This is highly significant in terms of archaeological education. In Chapter 2 claims made by archaeologists for the potential of archaeological education to be aligned to progressive teaching strategies and to empower pupils was set out, however many of these claims are also inextricably linked to a view of archaeology as a progressive discipline (e.g. Copeland 2004a, 134; Davis 2005, 13). Thus, what has been demonstrated is that the dominant political context for public archaeology has a significant role to play in whether or not these social justice aims can be achieved.

Community Archaeology

Community archaeology has become relatively popular, partially in response to the general exclusion of the public from planning led archaeology, a phenomena that goes hand in hand with the professionalization of archaeology (Holgate 1991, 37 -38; Merriman 1998, 21; Russel 1998, 48; Schadla-Hall 1998, 51). Therefore, by its very nature community archaeology appears to be focussed on public engagement and addressing some of the

criticisms of public archaeology mentioned in the previous section above.

However, not all community archaeology is the same. There are community projects which have high levels of participation and a democratic approach, as described by Faulkner's (2000) term 'archaeology from below' and those where the public involvement is more limited (e.g. Paz 2012).

It is interesting to consider the implications of Faulkner's language in terming a fully participatory project as 'archaeology from below'; the very use of the word 'below' creates a clear image of the 'normal' power relations between communities and archaeologists, i.e. there is a hierarchy and communities are ordinarily subordinate to (below) archaeologists. This point is reinforced by McGuire's (2008, 144) who boldly asserts that:

. . . those communities who do not share out interests in the past lack that interest because of ignorance, which education can eliminate. What is not considered in this view is that other communities or social groups may simply have different interests and ways of knowing about the past.

Versaggi (2008, 204) suggests that access and participation can empower communities to become owners of the past and therefore this would suggest that Faulkner's archaeology from below is a best practice model. However, Smith (2006, 52) has offered a critique of this view. She suggests that by focussing on tangible heritage, i.e. sites and artefacts, that issues are reduced to what can be managed and obscure a more contentious debate concerning identity. Instead Smith (2006, 52) suggests that what is really at stake is the control rather than the ownership of the past and that this highlights the real power imbalance.

This power imbalance is exacerbated when the class profile of archaeology is considered. Specifically, archaeology has been criticised as a

middle class pursuit (Dodd 1999, 131 [1995]; Lee Davis 1997, 85; McGuire 2008, 101) and therefore it follows that community archaeology efforts tend to be targeted towards the middle classes with research and fieldwork agendas set by archaeologists undoubtedly reflecting this, and thus immediately a whole swathe of the population (i.e. those that are not middle class) are effectively excluded. In some cases the division of particular groups along class lines has contributed to significant tensions between the archaeological establishment and others: notably in terms of the division between archaeologists and metal detectorists (Merriman 1998, 21) and archaeologists and followers of New Age philosophies (Smith 2006, 37). It is important to acknowledge that these references are historical now and that in the case of tensions between archaeologists and metal detectorists, the Portable Antiquities Scheme has made great strides in healing these rifts but examples which can be analysed in these terms still occur from time to time (e.g. the case of Seahenge, Pryor 2001).

What this discussion highlights is that community archaeology projects tend to be imposed on communities in that they are developed and managed by archaeologists. However, community archaeology does have the potential to embrace wide audiences and their interests and help promote social justice and create a more democratic society (Skeates, Carman and McDavid 2012). In my opinion what is critical to the success of community archaeology in achieving these aims is the extent to which archaeologists relinquish their professional authority. Communities can be active in taking part in the archaeological process, for example by helping to excavate a site or record a standing building, but at the same time passive in

terms of research design and methodological approach or deciding what should be investigated in the first place. 'Having a go at digging' might be fun, but whose aim does it really serve? This is an issue which can be discussed for archaeological education too. Can a site visit or even an opportunity to excavate successfully empower pupils if there is no real participation in the decision making processes of archaeology?

Indigenous Archaeology

Watkins (2012, 666) describes indigenous archaeology as a practice which draws upon the theoretical heritage of archaeology but is contextualised through indigenous culture and values with a focus on addressing the power imbalances created by biases implicit within Western scientific paradigms. The development of indigenous archaeology can be seen to be linked to a wide spread acknowledgement amongst archaeologists that archaeology has had a role to play in colonialism, post-colonialism (Trigger 1984) and the oppression of indigenous peoples (Arenas and Obediente, 1990). These past injustices are keenly felt with embarrassment by many archaeologists (e.g. Molyneaux, 1994) and thus indigenous archaeology may be a way of righting these wrongs. However, despite this, the use of archaeology as cultural oppression is sadly not something which can be confined to the past. Three ways in which archaeology still perpetuates the oppression of indigenous people will be considered here.

First is the authoritative and scientific voice of archaeology (Watkins 2012, 666); as demonstrated in the earlier section on public archaeology in this chapter I argued that there is a continuing focus within CRM on

processual methods (Smith, L. 2004, 117) and that this scientific paradigm effectively denigrates other forms of knowledge such as oral traditions and gives archaeologists unequal power over the cultural resources associated with indigenous peoples (Watkins 2012). Certainly it is archaeologists who are effectively able to influence decisions over what is protected, what is investigated, and how. For example Franklin and Moe (2012, 569) have argued that it is important for archaeologists to take this role and educate the public so that the archaeological heritage can be saved for their benefit. However, ultimately this argument demonstrates the professional arrogance mentioned above that McGuire (2008, 144) was referring, which overlooks 'other' ways of knowing about the past.

Second, indigenous perspectives are often not valued and studied by school children (Kehoe 1990, 201; Stone 1997, 24) and this is linked to the exclusion of prehistory from curricula across the globe (Corbishley 2011, 114). Excluding and obscuring indigenous values through formal schooling has been used as a powerful ideological tool to maintain inequalities and colonialism (Arenas and Obediente 1990, 51-52). What this highlights is a direct link between education and the devaluation and even denigration of native peoples. This raises a question for archaeological education in terms of whether it is aligned to maintaining these inequalities or addressing them.

Third, efforts to embrace other cultures and demonstrate pluralism often have the opposite effect (Skeates, Carman and McDavid 2012, 5). In fact often what an emphasis on other cultures does is reinforce the subordinate role of those other cultures (Kehoe 1990) and fails to address the structural causes of oppression (Molyneaux 1994, 6). Linked to this is a

very strongly asserted point made by Barlow (1990, 81) who says an acknowledgement of the interpretive nature of archaeology, “. . . is tantamount to an admission that the past as reconstructed by archaeologists is in effect a version of cultural oppression in that it is in variance with the past as perceived by Aborigines”. This view can be framed within Friere’s (2000, 74, 138, 140 [1921]) critique of paternalism, which in the case of indigenous archaeology can be seen as situating native peoples as inferior by making them the receivers of archaeological goodwill. This puts well-meaning archaeologists in a difficult position. It also comes back to the idea of that archaeology is inherently biased towards Western elitist thinking no matter how inclusive it tries to be. Given this position the question of whether or not archaeology can ever really be inclusive and democratic is raised.

This thesis draws upon a global context and the discussion of indigenous archaeology reflects that, but the immediate focus of this research is archaeological education in England. So it is worth consideration the overt relevance of the discussion of indigenous archaeology given that England is a country with no identifiable first nations. I agree with Smith (2006, 299) when she asserts that, “The experiences of indigenous peoples in asserting their heritage have much to offer in understanding the role of heritage in non-indigenous or Western contexts”, and thus the points made above can be viewed as just as relevant when working with any groups outside of the dominant elite. The histories of minorities are often rendered invisible in the archaeological record and are effectively written out of the past (e.g. Garrison 1990). This sends a powerful message. This message may also be reinforced by a tokenistic gesture towards hidden histories: the

implication of Black History Month and Lesbian Gay Bisexual and Transgender History Month is that the rest of the year is devoted to mainstream history. How much time do archaeologists spend considering what archaeological record has been left behind by Gypsy Traveller communities and how can this be safeguarded compared with other more mainstream groups? What messages are being promulgated by the presentation of status and nobility at historic houses and castles and what does that say about class today (Smith 2006, 303-305)? Are the mistakes made in terms of ignoring indigenous pasts in the curricula of other countries replicated for the powerless in the English National Curriculum? It is suggested here, and will be developed further later on in this chapter that the injustices perpetuated in terms of indigenous histories are replicated in terms of minorities and class histories in schools in England (see pp. 185-187 and 197).

It is also pertinent to consider groups such as druids and pagans who claim to have a special connection with Britain's prehistoric past (Smith 2006, 37). Their views are often described as 'alternative archaeology' or more pejoratively as the lunatic fringe (Schadla-Hall 2004, 255) and as mentioned with respect to community archaeology there are good examples of times when 'alternative' and traditional archaeological perspectives have clashed (e.g. Pryor 2001). It is easy for archaeologists to dismiss such views, but is it wise or right? Many first nations cannot prove their particular lineage has an unbroken link to their country's prehistory any more than a pagan can. An alternative is to engage and listen as McGuire (2008, 144) suggests, since often what someone's views of the past represent are their feelings in terms

of their power or powerlessness in society. An example of this comes from the appropriation of the construction of the idea of Celticity by nationalists from Ireland, Scotland and Wales. This has been linked to the politics of power and the desire of these nations to unite in the face of English dominance (James 1999). The idea that the people of the Welsh, Irish and Scottish nations can demonstrate an unbroken link to the timeless and idealistic pastiche of Celticity has been debunked by archaeologists, but it endures in popular culture because it is as much about a distinction from English power as anything else. Why should the spurious claims of a modern pagan who seeks to distinguish themselves from *status quo* politics be any different? Obviously archaeologists have the right to disagree and use archaeological evidence to support their position, but they should allow the alternative to be voiced. In fact, perhaps this could be taken a stage further and it should be a prerogative of archaeologists to ensure those who feel alienated are given a voice and are heard (Watkins 2012, 670). This is a crucial message in terms of archaeological education, since as it can be argued that education is a key tool of engagement or oppression (Friere 2000 [1921]). So then archaeologists can make a choice about whether they support the *status quo* position or challenge it by ensuring that pupils' ideas about the past are explored and voiced.

Museums Education/Learning

This section should be prefaced by saying that museums education has been thoroughly discussed by others. Much of this debate is outside the scope of this thesis: this discussion is a brief overview of the role of politics in

museums learning, and in particular only where it is relevant to archaeology. Smith, L. (2004, 85) records that many nineteenth century museums “. . . established themselves as the ‘stewards’ of the past for the ‘public’, with the aim to ‘educate’ the public”. In essence museums were part of a public education movement, but as will be discussed later in section 4.3, the ideology which governed the move towards mass education was not altruistic and therefore these educational efforts cannot be described as empowering. In fact, it would not be too strong to describe museums as elitist. It has been asserted by Pearce (1997, 15-17) that the development of museums and collecting were structured by the underlying philosophy of modernity and its binary oppositions of ‘Us and Them’, where Us are white, middle/upper class, European men and Them refers to everyone else. This process was cyclical, since early archaeology was practised by the elite and informed by modernity, but this philosophy was in turn reinforced by museums (Pearce 1997, 16). Essentially museums were both a result as and a justification for imperialism. The collection (or pillage) of archaeological and ethnographic material from imperial colonies was widespread in the eighteenth and nineteenth centuries and often this material was displayed next to European prehistoric material (Pearce 1997, 20-21). The message was clear, ‘They’ (indigenous people) were less advanced than ‘Us’ (Europeans) (Pearce 1997, 21), and hence imperialist endeavour was justified.

Since the demise of imperialism a period of post-colonialism has been identified: the elitism that was symbiotic with early antiquarians has not been fully exorcised. In Bourdieu and Darbel's (1991 [1969]), *Love of Art*, they outline the cultural barriers that continue to exclude people from museums

and galleries. Interpretation and display in museums caters to the tastes and educational level of the educated classes and therefore gives them access to a cultural elite which excludes others. Bourdieu and Darbel further argue that the ability to sustain the sort of education needed to find museums and galleries accessible is conferred on class lines with only the middle and upper classes able to afford it (Bennet 1999, 203 [1995]; Bourdieu and Darbel 1991 [1969]). In his book on the British Museum Wilson (1989) demonstrates this cycle of exclusion. He notes that at the time of publication, 60 per cent of visitors to the British Museum had a degree (at a time before a Government push for higher education) and thus he surmises that they must have been pitching their interpretation to the right level.

This discussion is relevant because interpretation in museums has an educative purpose (Roberts, 1997, 57), but education in museums has developed beyond this. Museums education has become as a specialist field of museums work and a key role for education and learning specialists is to be audience advocates (Roberts 1997, 63). That role has involved engaging visitors in dialogue and revealing the 'voice' behind interpretation (Roberts 1997, 79). In some instances this has developed from a sense of moral responsibility to address the colonialist and post-colonialist perspectives that museums previously helped to reinforce (Hooper-Greenhill 2007, 104).

Thus, museum educators have been involved in developing museum interpretation and programmes which are specifically targeted towards empowering wider audiences. One way that museum educators have done this is by using constructivist approaches. Dhanjal (2005) presents a discussion of an archaeological interactive she developed using a

constructivist framework. The interactive allowed pupils to handle archaeological material from different time periods laid out to broadly represent archaeological stratigraphy. Pupils were encouraged to create their own interpretations and Dhanjal drew upon her experience as a museum explainer in developing the interactive.

However, to say that museums have universally rejected an authoritative voice in favour of the visitor perspective would be naïve. The Museums Association (2012a) proudly announced that the Department of Culture Media and Sport recorded record numbers of visitors (43 per cent) from black and ethnic minority backgrounds in 2011 as captured by their 'Taking Part' survey. However, this is still lower than the percentage of white adults who visit. Also the Museums 2020 agenda is specifically about the move towards greater participation and the impact of museums upon social justice, so on the one hand this can be viewed as evidence of the powerful role that museums have and can play in promoting a more democratic society (Museums Association, 2012b). However, on the other hand the very fact that this debate is in full swing indicates that museums have far to go.

Interestingly, the results of the Taking Part survey mentioned above indicated that more people (from both white and black and ethnic minority backgrounds) visit heritage sites than museums (Museums Association 2012a). This suggests there is something ultimately more appealing about heritage in its 'raw' form rather than when it is mediated through museums interpretation. It is beyond the scope of this discussion to speculate the reasons for this, suffice to say that there is a clear difference between engagement with archaeology and heritage in a museum and in its natural

context. Nevertheless, both fields have the potential to empower and engage, but a long way to go before this work is complete.

Archaeological Education

The connection between what is taught (and, as important, not taught) in public schools, and the role archaeologists play in supporting the development of a more progressive society by contribution to social studies education, are for the most part unexplored (Jeppson 2012, 589).

Jeppson's assertion above suggests that there is more work to do in terms of understanding the potential of archaeological education in terms of social justice issues. What he also implies is that there is a potential for archaeological education to have an influence on social justice issues. In part this idea is taken from an extrapolation of similar ideas in related fields, which is why public archaeology, community archaeology, indigenous archaeology and museum education have also been discussed. In doing so the links to archaeological education have been highlighted, but now this area will be focused on in its own right. However, before pursuing this it is important to remember that not all archaeologists who view archaeological education as empowering overtly link this to its political nature. Some merely view an alternative pedagogical approach as the reason why pupils seem to be engaged and inspired through archaeology. This discussion acknowledges that but seeks to further explore the idea of social justice and archaeological education as understood from the literature.

The role of history teaching in schools has been considered in some depth in section 4.3 below, but suffice to say that there is a general trend

in history curricula all over the world whereby prehistory tends to be excluded. Furthermore, at the time of writing, history in England is not taught chronologically, instead pupils move thematically between periods. The reasons for this are not made clear in the statutory orders but there are two possible explanations. The first is that the history curriculum is based on the 'spiral curriculum' model (Bruner 1977, 13 [1960]; Bartlett and Burton 2009, 126 [2007]) whereby pupils return to different periods with a deeper understanding each time. The second is that this disjointed view of chronology is linked to an ideological approach which seeks to make a particular political point (Arenas and Obediente 1990, 50). This argument is given weight by the emphasis on history periods associated with models of empire and colonisation (notably the Romans, the Tudors and the Victorians) (Diffey pers comm. 12th January 2010). If the second argument is accepted the political nature of history teaching becomes apparent and compels archaeological educators to consider such matters carefully.

However, archaeologists are not necessarily engaging with education at all let alone acknowledging its political role. As Jeppson (2012, 582) explains, "archaeology's lack of engagement with education has served to work against those who want to promote a more inclusive democracy". This issue was illustrated in Chapter 2 through the fact that many archaeologists have delegated educational work to non-archaeological educational specialists and often these specialists are excluded from holding senior decision making roles in their organisations (see p. 73). I can see three possible reasons for this delegation. First, because senior decision makers

and other archaeologists who delegate educational work recognise the value of sharing authority with others and have identified this as way of relinquishing some control (Smith 2006, 51). Second, that they value the insights that working with educational specialists can bring (Jeppson and Brauer 2008, 231). Third, that this translation through a third party just another function of the depoliticization of archaeological messages. In reality, it is likely that all three reasons play a part in explaining the phenomenon of devolving educational work, but Kehoe's (2012, 543) comments are insightful. She has termed the fields of archaeological education and outreach 'pink collar' archaeology and observes that education and outreach has been subordinated to fieldwork by the profession and the gendering of the discipline relates to this (Kehoe 2012, 543).

Jeppson (2012, 588) suggests that archaeology can empower pupils to challenge the traditional and typically conservative overarching narratives of the past. This is a potential which has been observed in terms of the related sub-disciplines and clearly engaging with formal education programmes is a clear way that archaeologists can 'reach' the public. As Henson (2012, 222) has commented "To learn from the past is fundamentally a political act, and perhaps this is why archaeologists as scholars have been wary about stating this openly as a reason for their existence". However, as has been demonstrated by failing to engage in this way archaeologists are in fact supporting inequality through perpetuating traditional views of the past. Furthermore, this lack of engagement and low value that archaeologists ascribe to this work is demonstrated by Kehoe's observations and those referred to from Chapter

2. Thus there is clearly work to do to fully understand and demonstrate the value of archaeological education and its importance.

4.3 Education and politics

School is a place in which the division between the weak and powerful is clearly drawn (Jackson 1994, 118).

The provision of state funded compulsory education is mired in politics (McGill 2011). Throughout the nineteenth century politicians debated the potential for mass education to be a tool of social control (e.g. Bartlett and Burton, 2009: 62 [2007]) and then finally in 1870 introduced the Forster Education Act which made primary education compulsory (Martin 2008, 211). From this point onwards successive governments used education to deliver differing political goals. This process has rapidly accelerated in recent years with Furedi (2009, 1) noting that in the last twenty years over twenty educational acts have been passed.

This consideration of the political context for education is particularly pertinent. In 2010 there was a change of government in the UK. The new government very quickly published a White Paper on education and proposed within the White Paper was the large scale overhaul of the primary education system. A new curriculum is due to be implemented and this will have a significant influence on education and by implication archaeological education. At this point the final curriculum is yet to be unveiled by early drafts reveal that there is an emphasis on a traditional 'back to basics' approach (Department for Education 2012; Department for Education 2013a) and despite a promise to remove prescription in terms of what to teach in

non-core subjects (Oates *et al* 2011, 8), the first drafts of the curriculum are detailed and very prescriptive (Department for Education 2013a). The programme of study for history takes a chronological approach and focuses largely on British History with an emphasis on great men and great deeds (Department for Education 2013a). Historical skills seem to have been overlooked and it is difficult to see how it would be possible to teach such a full curriculum without a reliance on a traditional narrative approach and some rote learning. The idea of Britain as a 'great nation' is strongly represented and in general a draft framework for the National Curriculum makes it clear that a primary aim of education is to align education to economic prosperity (Oates *et al* 2011, 16) which as will be demonstrated is rooted in ideology.

What is the political role of state funded compulsory education?

As set out in Chapter 2 education can be defined in a number of different ways, but throughout this thesis it means state the funded compulsory education of children. It is very important to restate this here, since it establishes that education within this context is not just about the acquisition of knowledge, but also takes on a political dimension. Given that this discussion focuses on the relationship between archaeology and education within this specific political context the discussion of more participatory approaches to education are outside the scope of this thesis.

In order to appreciate the importance and implications of the political context for education it is worth taking a little time to consider the birth of

compulsory education in the UK. What the early debates illustrate is the potential of education as a tool of ideology and further to that one that reflects dominant ideology (Burton and Bartlett 2009 [2007]). The ideological manipulation and the correlation to the changing political climate is well documented (Matheson, C. 2008, 22). What is particularly significant about this is that when there are tensions between educational ideology and political ideology in education it tends to be political ideology which triumphs when it comes to directing pedagogy in the classroom. For example, the influence of the progressive ideals associated with the Plowden report in the 1960s were severely limited due to the dominance of a prevailing 'Right Wing' political climate (Matheson, C. 2008, 27 [1999]). Thus it is important to acknowledge that despite all the best efforts the limited impact of progressive educational efforts may not be due to their inherent weakness or the fault of teachers (or archaeological educators) but may be due to tension with the dominant political climate.

Education, deprivation and class

Having highlighted the relationship between education and politics, specifically the politics of control it is relevant to consider the power imbalances that are created through this. It is an unfortunate fact that despite efforts to reduce inequalities in education that they are actually deepening (Wyness 2008, Burton and Bartlett, 2007). Pursuing social justice through education is not as simple as many reformers hope (Friere 2000, 78-79 [1921]). For example in the 1950s social democrats recognised the potential

of education to achieve their redistributive political aims, but education did not prove to be the revolutionary force they hoped it would be (Bartlett and Burton 2009, 68 [2007]). This observation is highly significant for archaeologists wishing to pursue social justice through education since actually the education system itself seems to inhibit these efforts. Thus it is not merely enough for archaeologists who wish to pursue social justice to engage with education they must also challenge it.

In order to explore the idea of challenging the educational *status quo* the reasons behind why, in the twenty first century, there is still such a clear correlation between poverty and poor educational attainment should be considered. Some authors have argued that the curriculum simply is more relevant to middle class children (Wyness 2008, 145) than working class children since the skills and interests of working class children are less likely to be reflected in the curriculum (DCSF 2009b, 57). Bourdieu and Passeron (1977 cited by Bartlett and Burton, 2009, 150 [2007]) have described this situation through the coining of the term 'cultural capital', that is working class children are less likely to have the right skills and be part of networks which help them succeed at school, whereas middle class children have an unfair advantage in that they do possess this cultural capital. This can also be viewed as related to the idea of the 'hidden curriculum' (Bowles and Gintis 1976 cited by Bartlett and Burton 2009, 149 [2007]) which describes the learning that takes place above and beyond what is prescribed in the stated curriculum; it specifically relates to pupils learning their place within society. Within the terms of the hidden curriculum pupils may be expected to undertake boring and routine tasks to prepare them for a working life doing

the same or they may be subject to rules which are never explained or justified (Mercer 1995, 45). “The hidden curriculum message here is that pupils have a place in school (society) and the powers that be have mechanisms for keeping them in those places” (Bartlett and Burton 2009, 150 [2007]). This concept has been reiterated by other authors, for example, Holt (1994, 9) observed that children spend a lot of time at school both in fear and learning ‘how to be stupid’ and Jackson (1994, 118) commented that pupils are often in a powerless position compared with that of their teachers. Friere (2000, 72-73 [1921]) has used the term the ‘banking concept’ of education to describe how this takes place (Bartoy 2012, 554-555). Within this model pupils are inherently less knowledgeable (and less powerful) than their teachers, who deposit knowledge in them. This makes pupils passive and powerless and stifles their creativity. Friere (2000 [1921]) describes this approach to education as a tool of oppression.

These ideas are troubling and according to Friere’s (2000, 73 [1921]) critique specifically damage pupils’ self-esteem and creativity. This in turn affects pupils’ ability to learn more positive lessons at school. Garrison (1998) attributes this affect to the underperformance of Black British school children. What is more troubling is that the manipulation of the education system which creates these inequalities may be systematic and entrenched (Friere 2000, [1921], Molyneaux 1994, 10).

The ideological role of history teaching

Having set out the general political context for education with particular reference to its role in maintaining unequal power relations it is worth

considering the specific case of history teaching in schools and the relationship of archaeology to that. Specifically, what role for archaeology is there in within an education system described in these terms?

Several authors have commented on the use of history teaching in schools specifically to legitimize governing power structures (e.g. Davis 2005; Jeppson 2012, 583; Little 2012, 396; López and Reyes 1994; McGill 2011, 154; Molyneaux 1994, 3). The examples cited by the authors referred to here are not from the UK and it could be argued that the situations referred to by the South American writers are overtly political and conflict driven, thus their relevance to history teaching in the UK could be questioned. However, in 1991 the British Government prevented teachers discussing very recent historical events in history lessons (Corbishley 2011, 120; Sheldon 2011, 17). Corbishley (2011, 120) argues that this exclusion was applied to prevent teachers discussing politically contentious issues and was effectively an admission that history teaching had the potential to be a political act. Sheldon (2011, 17) reports that the Education Minister at the time denied this accusation, but also openly acknowledged that the Prime Minister was keen to use history to teach patriotism.

Davis (2005, 13) suggests that in fact it is precisely because history teaching is directed away from the politically contentious towards a depoliticised narrative that it is an effective tool in maintaining power structures (see p. 122). She adds that history teaching based around a one dimensional narrative is boring and fails to engage pupils. Or even more strongly as Arenas and Obediente (1990, 50) assert, "When history is

weakened, ignored and distorted, it produces a structural break that encourages dependence, i.e. colonialism.”

What is beginning to emerge is the picture of history teaching which is at best one sided if not completely manipulated. If the premise set out by the semiotic analysis of language put forward by Davis (2005, 13) and Roberts (1997, 56-57) is considered alongside the idea of the hidden curriculum then the view that history teaching in schools is delivering messages about power and powerlessness becomes clear and supports Friere’s (2000 [1921]) analysis. Davis has discussed depoliticised language and the narrative structure of the history in terms of how the power imbalance is maintained, but there are a four of other common features of history curricula which also contribute to this implicit aim: 1. the exclusion of prehistory from history studies; 2. the relative absence of people from the past; 3. the focus on historical periods associated with imperial achievements; and 4. the disjointed approach to chronology. These ideas will be discussed in the following paragraphs.

The relative absence of prehistory from history studies is well documented (Arenas and Obediente 1990; Kehoe 1990, 201; Stone 1994b, 192). In England, at the time of writing, there are limited references to archaeology within the National Curriculum statutory orders for history (Henson 2004b, 16) and where these do occur they are primarily where prehistory and history meet (e.g. the Iron Age/ Roman transition). The word ‘archaeology’ is only explicitly mentioned through these limited references to prehistory and for the largely ahistorical Saxon and Viking periods. This sends the unconscious message that archaeology is somehow not as valid

as written evidence, is only useful where no other more reliable forms of evidence exist and that prehistory is not as important as history (Kehoe 1990). This also sends a powerful message about the strength of the written word and thus also those that write it. Since most people in England were illiterate until fairly recent times these people are essentially written out of school history unless being described by others.

Therefore the emphasis on written history is related to my second criticism of school history which is the relative absence of people from the past. In the main the English National Curriculum for history takes a structural approach rather than one that embraces agency. At Key Stage 1 there are two references to the importance of learning about people in the past (Department for Education 2011a), but these references are overshadowed by the emphasis on 'great men' as demonstrated by the following direction to study, "the lives of significant men, women and children drawn from the history of Britain and the wider world (for example, artists, engineers, explorers, inventors, pioneers, rulers, saints, scientists)" (Department for Education 2011a). 'Great deeds' are also emphasised through the following instruction to study "past events from the history of Britain and the wider world (for example, events such as the Gunpowder Plot, the Olympic Games, other events that are commemorated)" (Department for Education 2011a). At Key Stage 2 this emphasis becomes even more apparent; for example the guidance states that a local history study can be conducted by looking at general change over time a significant local event or the work of a significant local individual (Department for Education, 2012b). This is relevant, since most people are not 'significant

individuals' in terms of the historical narrative. It is also relevant in that in investigating the past through material culture, archaeology is well placed to explore the everyday experiences of people in the past, yet since this aspect of history is marginalised the role for archaeology is also effectively marginalised.

This criticism is particularly important in terms of understanding value (or lack of value) of history education for minorities. Garrison (1990) pointed to the stark omissions of black history from English history text books. He goes on to state that black people are, "Victims of the assimilation process, their lack of recognized history has rendered them invisible, thereby disinheriting and undermining their sense of a Black British heritage" (Garrison, 1990, 238). This is an example of how the curriculum reflects the national story (Sheldon 2011, 41-42) and thus represents the prominence of the grand narrative nationalism which marginalises particular groups (Smith, 2008, 36-37). Related to this is the idea that school curricula are more relevant to middle class children than working class children as discussed above (Wyness 2008, 145 [1999]) or indeed children from minority groups, in that the cultural backgrounds, skills and interests of the working classes and minority groups are less likely to be reflected within the curriculum than those of the white middle classes (Department for Children Schools and Families 2009b, 57).

It should be mentioned that since Garrison's criticisms of the National Curriculum revisions have been made which put black history on the curriculum (Sheldon 2011, 41). However, the revisions have alienated some by focussing on the slave trade and negative stereotypes or been entirely

ignored by others and therefore, although more black and ethnic minority history is being taught (Sheldon 2011, 41-43) Garrison's criticisms still have validity. This is partially because the black history taught is disjointed from the shared history of the pupils who are expected to learn it (Sheldon 2011, 43) which reinforces the point that a lack of agency is problematic.

My third criticism is that the history curriculum tends to focus on periods of history associated with empire and capitalism. Specifically, the Romans, Tudor exploration (which is focussed on early colonial endeavours), Victorian Britain and a range of ancient empires are referred to at Key Stage 2 (Department for Education 2011a). Clearly, with limited space on the curriculum it is not possible to explore the full history of humankind, but the choices of period are telling. Victorian architects often emulated Roman architecture and in doing so made a connection between that imperial system and the legitimacy of the development of a Victorian empire. Thus through their choice of historical periods worthy of study curriculum designers imprinted a message about the legitimacy of capitalism and globalisation.

My fourth criticism of history curriculum is that it is chronologically confusing and jumps back and forth between periods. Compared with the new draft curriculum it appears to be skills based, but while there are references to historical skills it is not a truly skills based curriculum such as the one proposed by Rose (2009). Therefore, the observations of Arenas and Obediente (1990, 52) about the Venezuelan history curriculum may still be relevant in understanding the non-chronological approach taken by the English curriculum for history. They reason that by separating history into

discrete chunks the causal links between events in the past are broken which prevents a thorough analysis of the past in terms of its relevance for the present and the future (Arenas and Obediente 1990, 52). This argument could also be applied to the National Curriculum for history which focuses on dominant history.

It has been argued here is that education is a powerful ideological tool and that history teaching reinforces dominant political messages. Given this position it is unsurprising the gap between the educational attainment of the rich and poor is wide and social inequality remains apparent (Department for Children Schools and Families 2009b; Wyness 2008, 142-143 and 144 [1999]), with social justice issues peripheral to policy decisions (Ball 2008, 150).

What is noteworthy is that modern archaeology with a generally perceived focus on prehistoric periods and an emphasis on inquiry has a limited role within formal state funded education and history teaching under the terms described above. The culture history approach to archaeology would no doubt fulfil some of the unwritten aims of the history curriculum in terms of reinforcing *status quo* images of progress, but this approach has largely become defunct within archaeology. What this in turn means is that archaeology has the potential to reach out to pupils who have been disenfranchised by traditional history teaching efforts and in this light the claim that archaeology can be empowering is clear (Molyneaux 1994, 2). However, the caveat to this is that archaeology is not always as progressive and liberal as it may at first appear as described in earlier sections of this chapter and can be effectively used to deliver an authoritative *status quo*

view of the past. What may be likely is that the focus on key historical periods is adequately served by history and simply does not need to be reinforced through archaeology. However, the question of what archaeologists are trying to achieve through archaeological education still remains and will be debated in the next section.

4.4 What is the point of archaeological education? The deficit model vs. the multiple perspectives model

As described in previous chapters of this thesis, the justification for public engagement tends to be aligned to one of two arguments, the deficit model and the multiple perspectives model. Broadly speaking the deficit model refers to the education of the public about archaeology in order to correct their misconceptions and to further the aims of stewardship (McGill 2011, 155). These ideas have been crucial in the conscious development of public engagement efforts (Jeppson 2012, 591; Little 2012, 399; Smith, L. 2004, 117). The deficit model argument has been criticised since it prioritises the aims of archaeologists over those of the non-archaeological public (Walker 2011, 3) and instead the alternative multiple perspectives model has been proposed. The multiple perspectives model is closely linked to post-processual thinking and the politics of archaeology, but it is also my premise that the deficit model is also related to political concerns. These two models will be deconstructed in terms of their political nature in the paragraphs that follow.

Schadla-Hall (1998, 53) stated “It is really time that we caught up with the fact that an informed and involved public is far more likely to protect their heritage for the many from the few than a public which is treated with mistrust and disdain. Social inclusion again!” Versaggi (2008, 203) reinforces this position by asserting that many archaeologists have identified an ‘uneducated’ public as one of the most significant threats to archaeology. This position is loaded with assumptions about validity, authority and power, just as the deficit model is as a whole. Furthermore, this position is also associated with a grudging acceptance of public engagement as a necessary evil. I have provocatively used the phrase ‘necessary evil’, since some archaeologists fear that engagement will dilute their primary focus on conservation and stewardship (e.g. Jameson and Baugher 2008, 7).

It should be noted that the term ‘deficit model’ was originally developed by science communicators and relates to the process of using education programmes to correct deficits in the scientific understanding of the public through education programmes (Merriman 2004, 5; Paz 2012, 35). The argument follows that scientists claimed that the public would benefit from having a greater understanding of science because they would be able to make better science based decisions and therefore scientists had a duty to educate the public for their own good. This argument is based on an assumption that there are some universal scientific truths which the public must be educated about. In respect to archaeology the term has been applied in a similar way, i.e. the correction of deficits in understanding and the delivery of important messages, one of which is that archaeologists know best and that the public’s needs are effectively met through having an

archaeological workforce who investigate, interpret and safeguard heritage on their behalf (Merriman 1998, 20).

The idea that archaeological education should be pursued because it helps to 'spread the archaeological message' (Jameson and Baugher 2008, 7) is associated with the idea that archaeologists are a professional elite who have the authority for interpreting the past and deciding what is important; it is closely linked to the assertion that archaeology is a scientific discipline that requires significant skill and training in the scientific methods to pursue and understand and thus is also linked to the development of cultural resource management (Kehoe 2012, 541). McGuire (2008, 144) has described a similar term, the 'consumerist' model. He goes on to explain that this form of archaeological engagement relies on archaeologists translating archaeological knowledge to the public based upon the idea that they have the authority to do so. Smith (2006, 32) has alternatively used the term commodification specifically to describe heritage tourism, whereby archaeological messages are packaged up for a passive audience to absorb. What can be concluded is that what these terms all describe is how the authoritative voice of archaeology can be utilised to maintain *status quo* power relations.

However, there is an alternative position to the deficit model which has been summarised by McGuire (2008, 145). He urges archaeologists to acknowledge that communities may have other ideas about the past and that perhaps archaeologists should recognise these. This idea is at the heart of

the multiple perspectives model which prioritises interests other than those of archaeologists. As (Little 2007, 5) states

Civic engagement through history provides the gateway for archaeology to research and tell stories that are more complete and more accurate. The fullness of the nation's history and culture connects heritage to contemporary environmental, social and cultural issues in order to move beyond a history packaged to be of interest only to related groups and move toward an inclusive history where experience is contextualised and people can relate to the lives and histories of others.

Archaeologists motivated by the multiple perspectives model arguments for public engagement believe that there is a correlation between sharing the authority for interpreting the past and empowerment (e.g. Meskell 1998, 5; Molyneaux 1994, 6). Stone (1997, 23) has discussed this model for engagement with a specific focus on working in schools and has argued that pupils will benefit from a more reflexive approach to archaeology. He does not go on to explain why, but Molyneaux (1994, 2) sets the idea out clearly when he refers to:

. . . the efforts that archaeologists and teachers are making to bring together the ideologies of education with the material evidence and knowledge of the past provided by archaeology in order to counter the controlling myths of the pasts in their communities.

The application of these ideas to archaeological education closely parallels some of the efforts of indigenous archaeology to address inequality. Thus it is perhaps no coincidence that some of the clearest examples of the potential archaeological education to empower or disempower pupils come from indigenous archaeology. For example as Funari (1994, 131) stated

Indigenous/minority oppressed groups can rescue their own memory with the help of a critical archaeology and a social engagement by people, especially teachers and other educationalists, dealing with material culture, archaeologists and museums management alike

Barlow (1990) powerfully discusses a case study which demonstrates the use of archaeology in oppressing the Aboriginal people

of the Torres Strait Islands. He argues that the exclusion of Aboriginal cultural heritage from the curriculum of Australian schools has contributed to the construction of Aboriginal people as 'culturally marginal' and that "For Australia's Aborigines and Torres Strait Islanders, education remains one of the main forces still maintaining them in a colonial relationship with all other Australians" (Barlow 1990, 68).

Thus a conscious awareness of the role that archaeology has to play in legitimising or challenging power within education is vital and a reflexive pluralistic approach described by the multiple perspectives model and underpinned by ideas derived from post-processual archaeology may be empowering for learners. This approach presents another challenge for archaeologists. As it has been demonstrated there is little room for archaeology within history teaching in schools (Sheldon 2011, 18; also see p. 83) and as Molyneaux (1994, 10) argues, this situation may not simply be fixed by changing the curriculum; the entire education system is politically designed to deliver a particular set of messages. Shanks and Tilley (1987, 193-194) make a similar point when they say taking a reflexive approach or understanding the hidden messages of interpretation is largely pointless if the overarching power structures are not challenged. This may also explain that although Merriman (1998, 20) stated that in the main academic archaeologists accept a pluralistic view of archaeology, this is not translated through archaeological practice. This idea is still current since the professional expertise of the archaeologist and the focus on cultural resource management was prominent within the recommendations of the Southport Group (2011; see p. 68). Thus, the

issue becomes can archaeologists really use archaeological education to address these political issues and if so how? Friere (2000 [1921]) suggests that an educational model which is based around dialogue and reflexive exchange provides a real alternative, and in terms of archaeological engagement, McGuire (2008, 145) urges archaeologists to take this approach and engage in dialogue with others. Hence, whether or not this occurs can be directly related to the theoretical framework which underpins engagement (and of interest here, archaeological education), and thus the values that pupils derive from this work. It is this issue which lies at the heart of Research Question 2.

4.5 Conclusion

The political context for archaeology reveals that it is just as much (if not more so) about the present as it is about the past. It is not possible to extricate it from its politics and an attempt to deny this context serves only to reinforce the *status quo*. This *status quo* is at best mildly conservative and at its worst fiercely oppressive. In this light, public engagement efforts are not peripheral but crucial and considered by some to be an ethical and moral responsibility. Some archaeologists have been reluctant to get involved with outreach and engagement, but have been persuaded of its value in terms of furthering the aims of archaeology. Some even argue that these aims are of intrinsic benefit to the public in general. Other archaeologists are uncomfortable with the idea that outreach should be designed to meet the needs of archaeologists, particularly when archaeology has been implicated in terms of supporting inequalities. They argue for a more inclusive form of

archaeology, yet it is not always as easy to achieve in reality and in fact these efforts can sometimes be counterproductive.

Furthermore the classroom is an ideological battle ground, particularly when it comes to learning about the past. The manipulation of history and history teaching is well documented and has been outlined, but there is an assumption amongst some archaeologists that a focus on material culture as opposed to written documents is enough to address this issue. This is a naïve standpoint, since as has been demonstrated here, archaeology is just as susceptible to political and ideological manipulation and in any case the education system itself may serve to inhibit more participatory and inclusive approaches to learning about and from the past. Therefore, this chapter delivers some important lessons for archaeological educators and archaeologists in general and presents the political context for archaeological education as an influential framework which this study must be considered within. Having set out the ideas pertaining to value it is appropriate to consider the real world position which will be considered through the examination of five case studies in Chapter 6. These case studies have been examined and analysed using the methods outlined in the next chapter.

Chapter 5

Methodology, Methods and Research

Tools

5.1 Introduction

In the preceding chapters I developed the context for this thesis and established the issues relating to archaeological education which I intend to explore, namely developing a systematic understanding of the theoretical framework for archaeological education and exploring how that relates to value for pupils. In this chapter I have set out the methods I have used to explore the topic within the framework of Research Questions and associated objectives. They were initially set out in the last Chapter, but are recapped here:

1. Which archaeological and educational theories are relevant to archaeological education?
 - To identify the range of possible archaeological and educational theories relevant to archaeological education.
 - To deconstruct archaeological education in practice in terms of a range of archaeological and educational theories.

2. What is the relationship between the different theoretical approaches to archaeological education and its value for pupils?

- To understand how archaeological education can provide an effective model for teaching and learning with reference to its theoretical context?
- To explore whether or not archaeological education empowers pupils.
- To identify what pupils themselves most enjoy about a range of different archaeological education programmes.

These questions were investigated through a critical examination of directly relevant and associated literature and through the examination of a series of school visits organised into five case studies. I used a broadly qualitative methodology. Five cases studies were investigated and each of these was focussed on the archaeological education programmes of an archaeological organisation. The experiences of pupils from 12 schools who took part in workshops with these five organisations were observed and recorded and generic learning outcomes (GLO) assessment responses were collected from the pupils.

A qualitative approach was selected for three main reasons. First, Research Question 2 was developed to explore the idea of value which is subjective and qualitative research provides a platform for investigating the richness of individual experience and meaning not readily available using a quantitative approaches. Second, since there has been little previous research into archaeological education there is not a body of data which can be used to readily build a testable hypothesis; therefore, it follows that this

research is exploratory in its nature and a qualitative approach suits research of this kind. Third, a qualitative approach provides a good fit to my research paradigm which has been outlined in section 5.2 below.

The specific research design for this study has also been described in this chapter and this includes the details of how the organisations were selected. An account of the tools and techniques used and why they were selected is given. The methods used to analyse and interpret the data have also been set out.

5.2 Research paradigm

In the previous chapter the debate about the motivation to become engaged with archaeological education was discussed (see pp. 194-199). What was established is that the arguments for archaeological engagement in general fall into one of two camps which have been referred to as the multiple perspectives model and the deficit model. The deficit model argument is broadly aligned to processual archaeology and the multiple perspectives model argument is broadly aligned to post-processual archaeology. One of the key ideas which underpins the multiple perspectives model is that archaeology is inherently political; thus practising archaeology (including through archaeological engagement) is a political act and any perception of neutrality is in fact an affirmation of *status quo* politics. Therefore, implicit within this is the idea that archaeology can be used to either reinforce dominant elites or subvert them and that the latter may provide a means to

developing greater social justice. The inherently political nature of archaeology is a key theme for this thesis and was specifically explored in the previous chapter.

It is this theme of the political nature of archaeology which has influenced my research paradigm. As has been discussed in detail in Chapter 4, archaeology has been a force for social control, but equally it has the potential to be a force for positive social change and a means for pursuing social justice. Crucially, archaeological engagement is a chief mechanism by which archaeology can be used to exert control or achieve equality and as will be demonstrated education is also a powerful tool for social control or social change (see p. 183). This view draws upon a post-processual tradition and as such ideas from post-processual archaeology have been highly influential in shaping the research questions and the research design.

Furthermore, initial reading about archaeological education quickly revealed that other authors have drawn a link to constructivism (see p. 125). Although positivism is not completely rejected by all forms of constructivism, it does tend to take a non-positivist stance which dovetails with post-processual theories. Similarly I recognise that it is possible for qualitative approaches to take a positivist stance (Charmaz 2005, 508-509), but generally qualitative approaches tend to take an alternative view (Brewer 2007, 27). Thus, my rationale for the choosing a qualitative methodology is also based upon a theoretical alignment between constructivism, post-processual archaeology and qualitative approaches.

That is not to say that all quantification has been rejected since quantification can be used to identify trends from data which has been gathered qualitatively. A further discussion about the adoption of this methodology balanced against the alternatives and the method of implementation is discussed more fully in the next section.

5.3 Methodological approach

As stated above a broadly qualitative approach was adopted. Exactly how and why the approach has been used within this research context has been detailed in this section.

A central theme for this thesis is the poor general understanding of archaeological education, particularly in terms of its theoretical framework (see p. 24-25). This dearth of knowledge creates a problem for any would be researchers in that there is not a sufficient body of data which can be used to build testable hypotheses and in any case this would not necessarily be a suitable way to explore the subjective idea of value which I have focussed on. Therefore, another way of looking at this issue is that the relative research vacuum in fact creates an opportunity to carry out exploratory research. The risk associated with this strategy is that the resulting research may be unstructured and can lack focus (Brewer 2007, 15). However, given that archaeological education draws upon the richly theorised fields of archaeology and education exploratory research into the field provides stimulating and interesting research potential which mitigates against the

risk. Therefore, this exploratory research has a broad goal in that the outcome of this thesis is basic research which adds to the understanding of the field of archaeological education. Furthermore a qualitative approach is well suited to exploratory research (Davis 2005, 49) which reinforces the choice of methodology.

The nature of the Research Questions also frame the qualitative approach taken since they are targeted towards developing a greater understanding of subjective experience associated with archaeological education. Quantitative testing is unlikely to reveal meaningful insights into experiences, but qualitative approaches are specifically designed to focus on this sort of understanding. The specific details of how this has been achieved are described in the research design section later in this chapter.

Additionally, a qualitative approach has been adopted by other researchers looking at similar areas. There are two key studies which are relevant. First is Davis' (2005) study into how children conceptualise the past. She describes her methods as both quantitative and qualitative (Davis 2005, 47-49). Specifically she used quantitative methods to situate her research and highlight the research problems (Davis, 2005, 47), but the thrust of her research and the important insights she reveals were developed through qualitative studies. The second key work is offered by Hooper-Greenhill (2007) and covers the development of the Inspiring Learning for All (ILfA) framework and the associated generic learning outcomes by the Research Centre for Museums and Galleries (RCMG) in the Department of Museum Studies at the University of Leicester. Hooper-Greenhill (2007, 76-84) refers to the use of both quantitative and qualitative research

approaches: quantitative methods were used to develop a broad picture and then qualitative approaches were used to delve deeper in order to understand meaning and experience. She states that the generic learning outcomes (GLOs) are a valuable tool for qualitative evaluation but that the data derived from their use can be reduced into a quantitative form (Hooper-Greenhill 2007, 61).

Thus, this thesis continues to follow in this emerging tradition and outlines a similar approach in that a qualitative approach is enshrined in the Research Questions and has informed the research design, but there has been some quantification of the data during the early phases and in the analysis phase. Denzin and Lincoln (2005, 9) have argued that mixed-method approaches dilute the authenticity of qualitative approaches and thus should be avoided. They have valid point, particularly in terms of their assertion that stakeholders are often excluded from participating in research when quantitative techniques are employed. However, there is a key difference between using quantitative techniques to collect data and using quantification to assist in the interpretation of data. At some stage, there is some element of quantification even in terms of simple counting in nearly all interpretation of data whether this is explicit or implicit (Miles and Huberman 1994, 253). This does not mean that the overall approach is quantitative or that the validity and richness of the qualitative data has been compromised, it is merely the process which humans tend to naturally use to focus in on what is relevant. Thus, I argue here that this thesis follows in the tradition described by Davis (2005) and Hooper-Greenhill (2007), in that although

some quantification has been used the main methodological approach is qualitative.

Qualitative research can be pursued in a number of ways. In this research a case study approach was taken using unstructured interviews and observation. The specific approach used drew mainly upon naturalistic non-participant observation (Adler and Adler 1994, 379; Korn 1989; Hooper-Greenhill and Nicol 2001) and partially upon unstructured interviews. Data collection was focussed on pupils and their teachers from 12 schools spread across five archaeological organisations with the programmes of each archaeological organisations being clustered into case studies.

One of the issues with the approach taken is that in focussing on subjective experience interesting observations can be made for individuals, but attempts to quantify those experiences and make generalisations from them deviates away from a qualitative approach towards a more positivist paradigm. However, in drawing upon the work of Davis (2005) and Hooper-Greenhill (2007) mentioned above, I feel that it is acceptable to continue in the emerging tradition of qualitative data collection, supported by both qualitative and quantitative analysis. Conclusions have been drawn by situating the results from the cases within the wider practical, theoretical and political contexts which have been also been discussed in this thesis (see Chapters 2, 3 and 4). I have reinforced my use of a qualitative approach and the subjective nature of the findings by using the first person throughout this thesis.

Furthermore, an implicit goal within the Research Questions and an important part of the discussion in Chapter 4 is understanding what the

difference is between traditional classroom learning delivered by teachers and learning in an archaeological environment. Understanding the difference is about understanding that archaeological education and traditional teaching are culturally different and that the relationships between pupils and archaeologists are different to that of pupils and teachers due to those cultural differences. This level of awareness of the cultural nature of interaction is crucial to my approach (Baszanger and Dodier 2004, 13 [1997]; Punch 2005, 152 [1998]). Furthermore, as Punch (2005, 153) advocates an open-minded approach to data collection, e.g. not being fixed to gathering data targeted towards proving or refuting a specific hypothesis is well suited to exploratory research. There are assumptions and ideas which underlie this research regarding the political role of archaeology and focus the work, but these in no way create a hypothesis for this research.

To summarise, this thesis describes basic research derived from exploratory work based upon a broadly qualitative approach although quantitative approaches have been used to identify possible organisations where cases can be investigated and during some of the analysis phases. As such this study conforms to an emerging trend in terms of its approach which has been established by other authors. Having established the overarching methodological approach employed, the specific methods used will be outlined in the following section.

5.4 Research design

As with all research projects the very first step was to carry out a literature review (Hart 1998, 27; Oppenheim 1992, 7). All literature reviews are conducted to highlight what other relevant research has taken place and situate a study within a wider context and this was the purpose here.

However, the literature review also revealed that little dedicated research has been devoted to archaeological education and thus the research net was cast more widely to look at other related areas and ideas. Therefore, in this case the literature review was more than a mere catalogue of other relevant research projects. Instead the literature review has been used here to develop a deeper synoptic understanding of the practical, theoretical and political contexts for archaeological education which have been discussed in Chapters 2, 3 and 4. In doing so ideas from different areas have been brought together to create a holistic understanding for archaeological education and these ideas have been used to discuss the results from the case studies. In particular, the literature review highlighted the range of theories which potentially influence archaeological education. In turn this enabled a framework for analysing the theoretical basis of various archaeological education programmes to be constructed and thus this work was targeted towards Research Question 1. Additionally, ideas about the nature of value and who the beneficiaries of archaeological education might be were developed from the understanding drawn from the literature review; specifically understanding drawn from indigenous archaeology and the political dimension of archaeology was pertinent, particularly in terms of the ideas underlying Research Question 2.

In practical terms the literature review was initially pursued by running keyword searches on the University College, London (UCL) library catalogue, Euclid. The terms “archaeology and education” and “archaeological education” were selected as the keywords for the searches. These searches produced a small number of results and helped to begin the search, but it was clear that this approach was far from systematic and was unlikely to produce a comprehensive picture of archaeological education. Therefore, following advice from the Deputy Librarian, Institute of Archaeology, UCL, Dr Katie Meheux five further lines of enquiry were pursued. These were to search Metalib (UCL’s bibliographic resource), search the data hosted by the Archaeological Data Service, search the resources of three online networks: the Resource Discovery Network, Humbul and the British Academy portal, to search for any relevant blogs and podcasts as these can provide an insight into a subject at any given time and also to search for relevant JISCmail (the National Academic Mailing List Service) lists.

As well as expanding the search areas, further search terms were also determined and these varied depending on the resource being consulted, e.g. the word “archaeology” was used when searching educational databases, but was not used when searching archaeological databases. Some of these searches were more useful than others and some were repeated several times throughout the course of this study. The details of the search terms searches conducted, the numbers of references found and the dates of the searches can be found in Appendix A. As it quickly became apparent that there had been very little previous research into

archaeological education specifically, it also became clear that related areas also offered insights into the study of archaeological education as described above. Therefore, references in relevant texts were followed up in order to develop a general awareness of the wider context for the research.

Following the literature review stage the research design was divided into four further stages, each of which has been described in detail below. These stages and the processes used to investigate them have been set out in Figure 2.

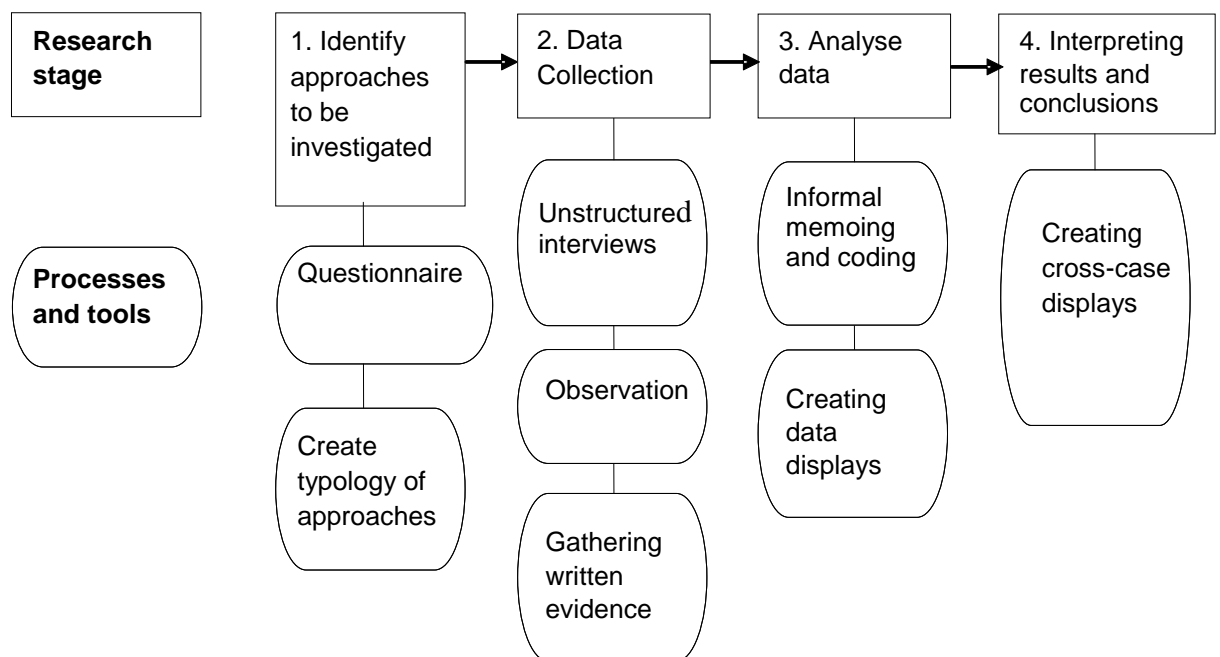


Figure 2 Diagram to show research stages and processes and tools used to investigate each stage.

This diagram has been drawn in a linear fashion and the research did follow this sequence, but it should be noted that in reality it was more iterative than is at first suggested by the sequential nature of the diagram. The analysis and interpretation of the data from the cases commenced immediately after

each site visit and thus at some points the actions associated with stages 2 and 3 occurred simultaneously: understanding developed from data analysis and interpretation undoubtedly influenced me in terms my focus during observation, further analysis and further interpretation. I assert that this iterative research process of growing understanding enabled me to increasingly focus on the most relevant events and ideas when observing the experiences of the pupils who engaged with the archaeological education programmes. However, I should stress that this iterative process was informally applied, which is why I have not represented the research design cyclically.

The main focus of this research has been the analysis of data collected from five case studies, each case study being defined by the archaeological education programmes of five different organisations. An instrumental case study approach was chosen since this approach focuses on providing insight in issues derived from generalisations (Stake 2005, 445) and thus this provided a good fit to the aims of the Research Questions. Employing an instrumental approach also reflected the fact that I had developed an understanding of archaeological education from the literature review and therefore although the research was exploratory, key themes regarding the lack of clear understanding of the theoretical framework for archaeological education (both in terms of why and how archaeological education is practised) had already begun to emerge. Furthermore, I had also identified that the GLOs could provide a useful framework for data capture and analysis. This sort of understanding of known issues and

potential tools for research tends to be a feature of instrumental case study research (Stake 2005, 450).

Multiple case studies were investigated. The reason for this is that archaeological education varies in its practical approaches (see pp. 83-89) and as this research is focussed towards exploring the general theoretical context for archaeological education, the similarities and differences between different case studies and incidences within those case studies is relevant. This multiple case study approach also allowed cross-case analysis to be carried out, thus deepening understanding further (Miles and Huberman 1994, 173; Stake 2005, 446). The intention was that the flexibility offered by looking at multiple case studies combined with a comparative approach would enable me to develop a better holistic understanding of the theoretical basis for archaeological education and what its value for pupils is. The specific processes and tools used to select the case studies, collect the data, analyse and interpret it have been outlined in the next section below.

5.5 Research processes and tools

The description of each of the processes and tools used has been organised by each stage and is set out below.

Stage 1 – Identify organisations and cases

The first stage of the research was to identify the archaeological organisation where cases could be studied and this was in itself quite a lengthy process.

The first step in this stage was to decide what sort of approaches to archaeological education would be investigated and that was achieved

through creating a typology of archaeological education approaches (Stake 2005, 450-452). The typology was created using by creating a matrix whereby programmes were categorised by their focus on content (e.g. a chronological focus) or process (e.g. a focus on skills) and their practical approach. Practical approaches were defined by those identified through the literature review (see pp. 83-89). This resulting typology created a matrix of 10 cells (see Figure 3).

		Content focussed	Process focussed
Practical approach	Working with artefacts		
	Fieldwork		
	Site tours		
	Experimental and scientific archaeology		
	Arms length archaeology		

Figure 3 Archaeological education typology matrix

An early decision was taken make a selection from the typology rather than trying to find case study examples for all 10 cells. This decision was taken in accordance with the guidance set out by Stake (2005, 451) and thus the chosen case studies reflect the variety of archaeological education programmes on offer and the ‘best opportunity’ to learn from them. In reality it was apparent that many archaeological education programmes can be categorised to fit into multiple cells of the matrix (see Table 3) and therefore although the classification was made on dominant characteristics many of the cases gave the opportunity to a range of approaches simultaneously. Additionally, initial reading around the subject indicated that some approaches were less common than others and thus the selection was also

made to reflect this, the rationale being that a dogged determination to study a case showing each characteristic would not lead to a representative view of archaeological education (Stake 2005, 451).

A decision was also taken to discount cases which only gave opportunities to examine 'arms length' approaches to archaeological education since within this approach the archaeological educator is physically separated from pupils. An implicit assumption within Research Question 2 and explicitly within the choice to use a culturally aware research methodology is that there is some kind of relationship between archaeological educators and pupils. This assumption is influenced by ideas around the cultural nature of learning and the importance of relationships and although it is true that the social context of learning is changing through more and more digital learning programmes and initiatives, my underlying theoretical perspective regarding the potential for archaeological education to provide empowering experiences for pupils predicates the importance of direct personal connections between pupils and archaeological educators.

Thus having created the typological matrix and made the decision that a selection of case studies would be chosen, work proceeded to identify a wide range of cases to choose from. This was achieved by gathering information on different types of archaeological education on offer using a questionnaire survey which was distributed widely. A questionnaire allows information from a large number of subjects to be gathered relatively quickly (Oppenheim 1992, 7) and has the added advantage of being able to reach a wide range of subjects if electronic networks are used.

Since the research was exploratory in its nature the questionnaire sought information on a number of facets of archaeological education other than just the type of programme on offer. At this stage I felt that it was important that the research net was cast widely as I did not want to be too limited too early. Thus, the questionnaire probed archaeological organisations generally in terms of their educational offer. Given the broad focus of the questionnaire it was important to follow a procedure for its development. Initially a pilot questionnaire was compiled using open ended questions. These questions were grouped together into sections (Korn and Sowd 1990, 24; Nichols 1990, 36). The pilot questionnaire was then sent out to a small number of organisations. Diamond (1999, 41) has stated that between five and 10 respondents is adequate for the purposes of piloting a questionnaire; 10 organisations known to offer archaeological education programmes were selected to pilot this questionnaire. In order to ensure a good response rate the pilot subjects were contacted by telephone prior to sending them the questionnaire to explain the process and gain their support. The next step was to group the responses from the pilot questionnaire to create categories so that multiple choice tick box answers for the final questionnaire could be developed (Korn and Sowd 1990, 24). A cover letter was also drafted to explain the purpose of the questionnaire and give instructions for its completion following the methods set out by Nichols (1990, 21). Please see Appendix B for a list of the organisations selected for the pilot, a copy of the pilot cover letter, a copy of the pilot questionnaire questions and Appendix C for the final questionnaire sent out (it should be

noted that the formatting is slightly different in order to meet the requirements of this thesis).

Since the intention of the questionnaire was to capture a representative view of archaeological education programmes on offer the questionnaire was distributed widely; it was emailed directly to known contacts including all the Institute of Field Archaeologists Registered Archaeological Organisations who listed outreach as one of their functions, all local authority archaeology services listed on the CBA's website (2006) and also posted on the CBA's education JISCmail list. Thus the questionnaire was sent to 46 targeted organisations and individuals plus all the individuals signed up to the CBA's education JISC mail list, of which there are 136 members, giving a potential target audience of up to 182 individuals and organisations. There is likely to be some overlap between the targeted list and those on the CBA's education JISCmail list, but there is no reason why this would have been detrimental in any way. There were 48 responses to the questionnaire and of these respondents 39 provided educational services. The full list of respondents can be found in Appendix D.

Since the pool of organisations who met the requirements of the study was relatively large (in terms of willing respondents and fit to the typology) the possible selection was refined based on those who had expressed a willingness to be involved in the research and had visiting schools who were also willing.

Stage 2 – Data collection

I chose to begin the research for each case by having informal conversations with the archaeological educators to gain an understanding of their work from their perspective, e.g. what their background was, how the programmes were developed and what their general experiences of archaeological education were. These conversations proceeded informally to allow the educator to reveal information specific to their experiences and organisation. Thus these conversational interactions revealed insights that may not have been identified through a more structured approach and complemented the highly structured questionnaire which the educators had already completed. The approach also allowed me to explain the research project and to develop a relationship with the archaeological educators.

Each organisation selected as a case study had agreed to contact schools booked in to visit them and secure their permission to take part in the research. Each organisation secured the support of between one and four schools. Collecting data across multiple schools introduced further variables to be investigated and gave a greater spread of subjects allowing for more rigorous analysis of similarities and differences amongst the results. Data collection was primarily focussed on the pupils from the schools but the feelings and intentions of the teachers were also recorded. Two techniques for data collection were chosen: naturalistic non-participant observation (Adler and Adler 1994, 379; Korn 1989; Hooper-Greenhill and Nicol 2001) and the collection of written material. I chose non-participant observation over participant observation because I wanted to be free to ask questions of

the participants and directly observe what the behaviour and reactions of the pupils rather than being absorbed in the activities taking place. I was introduced to both the teachers and the pupils and was visible throughout the workshops.

The teachers of the schools involved knew that I had a background in archaeology (this was explained to the schools in order to explain the project and gain the teachers' support) and thus a participant approach is also likely to have meant I was viewed as an archaeological educator rather than someone else experiencing the programme. Given this likelihood non-participant observation became even more attractive since I was interested in observing different approaches to archaeological education and not colouring their delivery with my own alternative ideas and approaches. Despite this in some cases the pupils obviously found it difficult to separate me from other adult helpers and they asked me questions relating to the programme or for other assistance. In each case I referred the pupils to their teacher or the lead archaeological educator. I did however ask questions of both the pupils and their teachers concerning their understanding and enjoyment of the activities and their perceived purpose for engaging in the programmes. I asked pupils to explain what they were doing, what they understood, and what they had enjoyed most. Teachers were also asked some specific questions regarding their impressions of the session and the curriculum context for their visit.

I wrote up the notes I made during the school visits immediately after the workshops and then informally coded and analysed them at a later date. Summary details of these notes with preliminary coding can be found in

Appendix F. It should be noted that the codes used were developed throughout the course of the research rather than being imposed from the start although they do reflect the characteristics of the theories described in Table 2 (see Chapter 3). As my understanding of archaeological education became more sophisticated I abandoned the system of coding my notes and instead directly related observation data to the data tables for each school (see Appendix H).

Written evidence based on both words and pictures was also gathered from pupils using two tools, a creativity assessment, and a GLO assessment. These assessments generated a wealth of interesting qualitative data which were coded and analysed. Details of the assessments can be found in the following paragraphs, information regarding how they were coded and used for analysis can be found in the next section, and copies of the assessment proformas can be found in Appendix G.

The creativity assessment used was the Guilford Circles Test (Fontana 1995, 130). The Guilford Circles test is an example of a non-verbal divergent thinking test which can be easily administered (Fontana 1995, 130). Each subject is given a sheet of paper covered in uniformly sized circles and asked to turn as many of them into objects as possible. Other shapes such as random patterns or lines can be used instead of circles (Fontana 1995). Details of how this assessment was coded and analysed can be found in the next section.

For this study pupils undertook this assessment twice, once before the archaeological education programme, and once after. This meant that a

baseline could be established (from the assessment before the programme) and change could be evaluated against this baseline. However, the test was adapted for this purpose so that the pre- and post-tests used different shapes (in this case circles and squares) to encourage the pupils to approach the post-test with a fresh attitude and not just simply repeat the responses given during the pre-test.

This assessment was chosen since creativity and the ability to think flexibly (which is chiefly what this assessment is aimed at) can be associated with positive educational experiences. Friere (2000 [1921]) has discussed the importance of creativity in a participatory and empowering education and how oppressive education is responsible for stifling creativity and furthering oppression: thus educational programmes which promote creativity may be related to progressive ideas about learning. Therefore, the intention in using this assessment was directly related to developing a better understanding of the value of archaeological education for pupils in terms of the effectiveness of the educational experience and influence on pupils' empowerment. Details of how the assessment was coded and analysed can be found in the section on analysis in this chapter.

The generic learning outcome assessment used was very simple in its design and was developed by the MLA (2006, 11). Each pupil was given a sheet of paper with a large speech bubble printed on it and the words "what amazed me most was. . ." printed beneath the speech bubble. Pupils were asked to write or draw one thing that had amazed them most about the archaeological activity. Details of how the assessment was coded and analysed can be found in the next section. There are five generic learning

outcomes (skills, attitudes and values, activity behaviour and progression, enjoyment inspiration and creativity, and knowledge and understanding) which the pupils' responses were categorised by. These categories were used to indicate learning in different forms and to some extent also to understand what the pupils had valued about the different activities they took part in.

Stage 3- Analyse data

The unstructured interviews and observation data were initially coded for analysis using an operational memoing approach (Punch 2005, 201-202 [1998]). The approach to memoing was fairly organic with notes being made in square brackets throughout the written up observation notes. The ideas collected in the notes enabled the identification of emerging themes and key concepts which were linked to the different theories associated with archaeological education.

These field notes were then more systematically analysed by mapping aspects of the workshops and pupils experiences against codes associated with different characteristics associated with the different potential theories. This was done for each school. Increasingly this process became intuitive as understanding developed (e.g. Punch 2005, 199-200 [1998]). The categories associated with the different theories were used to organise relevant ideas using matrix display tables for each school (Miles and Huberman 1994, 174). These tables were reconfigured and organised into partially ordered matrices for each case study (Miles and Huberman 1994, 174-181) and across the case studies. In some instance data tables were also created for each

separate school. Where appropriate these have been presented in Chapter 6. For reference all the tables can be found in Appendix H and Appendix I.

I used the guidelines for coding divergent thinking assessments set out by Fontana (1995, 130). Scores are given for fluency (how many responses), flexibility (the variety of response) and originality. Originality is determined by counting how often responses are given by subjects within the group as a whole, for example, if five pupils draw the same item they are each awarded one point, if four pupils draw the same item they are each awarded two points and so on. Flexibility is scored by grouping the responses into categories and awarding one mark for each category. The responses were coded in this way and scores aggregated to give an overall creativity score which could be compared across pupils, schools and organisations.

Similarly, the GLOs assessment was designed to be coded against the five GLOs using the method set out on the ILfA website (MLA 2008b) and this method was used here. The categories are not mutually exclusive and some pupils' responses were coded for multiple categories. Again this data was entered into the matrices created for analysing the case study data. Additionally, the GLO assessments of the pupils were found to be very revealing in highlighting what approaches and aspects of the programmes had an impact upon them. These responses therefore were also used flexibly to consider the experiences of the pupils. Moussouri (1997) has used children's drawing to analyse aspects of learning in museums and therefore there is a precedent for using children's drawings to analyse heritage learning. I have also included a selection of the pupils' GLO responses in

Chapter 6. The drawings in these figures remains the copyright of the individual schools. Each school has given permission to the author for their reproduction in this thesis.

The matrices were developed so that the data from the assessments and the observations could be displayed together along with details about the programmes and pupil numbers which allowed interpretation to take place. This will be described more fully in the next section.

Stage 4 – Interpret results and draw conclusions

The research generated a large body of data and this was organised into case-orientated matrix tables (Miles and Huberman 1994, 174) which presented each organisation as a case study. In the first instance the results were considered for each organisation and these are discussed case by case in Chapter 6. However, the results were also compared across cases and indeed across the individual schools, particularly in terms of the different theoretical characteristics observed and the creativity results. The use of matrix display tables enabled similarities and differences to be identified and interpretation developed which was focussed towards the research questions (Miles and Huberman 1994, 248-250 and 254-255) and actually the tables were also recombined to draw out where there were particular trends across different organisations. This cross-case analysis has also been discussed in Chapter 6 and forms the basis upon which the conclusions discussed in Chapter 7 have been drawn.

5.6 Summary and conclusion

This study follows an emerging tradition for investigating archaeological education which is based upon qualitative research. The approach was flexible enough to be adapted to the different circumstances presented by each case study and focused on real experiences captured in the field. Although, this is a qualitative research approach this does not preclude the quantification of the data as a data reduction technique.

The use of multiple case studies has enabled trends to be identified, in terms of both similarities and differences across a spectrum of archaeological education practice. Constructing a typology of archaeological education enabled a selection of cases to be chosen. The data collection techniques yielded rich data which could be compared and recombined for the purposes of analysis. Experiences were identified through a coding system based on categories and these codes enabled matrix display tables to be drawn up. These displays were useful in identifying emerging concepts and ideas. This was the chief method used for developing interpretation and understanding. The results of the analysis have been described and discussed in the next chapter with supporting material in the appendices.

Chapter 6

Case Studies and Results

6.1 Introduction

The Research Questions were developed to focus research into archaeological education and in particular to investigate its theoretical framework and its value for pupils. Answering these questions in the first instance meant exploring the context for archaeological education and a number of related ideas, theories, and themes. Information and analysis derived from these initial explorations has been discussed in Chapters 2, 3 and 4, and understanding of archaeological education has been advanced through this analysis in two ways: first, by developing a framework for analysing archaeological education (which will be applied in this chapter); and second, by situating archaeological education within its wider context. This has clarified what common features archaeological education shares with other forms of archaeological engagement and what makes it distinct.

However, in many ways what the development of this context has revealed is that there are many questions relating to the theoretical understanding of archaeological education and the understanding of its value which remain unanswered by current research and therefore, the need for further research is clear. It is for this reason that the data collected from five case studies is described and discussed in this chapter having been collected using the methods set out in the previous chapter.

The data has been organised into five case studies based on the archaeological education programmes of five different organisations and spans the experiences of 325 pupils from twelve different schools. A typology of archaeological education has also been displayed in this chapter and this typology is populated by names of organisations who offer archaeological education. This information was taken from responses to the questionnaire sent out to archaeological organisations which was also described in Chapter 5. The typology was used to select the case studies presented here following the methods also set out in Chapter 5 and the specific details of this case study selection can be found in section 6.2. Following this, the case studies have been described and discussed in sections 6.3-6.7. A brief background to the organisation, the programmes offered and a summary of the observations made are also included in order to contextualise the results. I have included a number of photographs to illustrate the case studies. I have credited each of the photos using the terms preferred by each of the organisations. Where no other credit is stated I am the copyright holder for the photographs. More detailed organisational backgrounds, field notes from observations and full data tables can be found in the appendices for further reference. A consideration of the results across all of the organisations and cases is offered in section 6.8.

It is noteworthy that the categorisation of the programmes offered by the different organisations based on the archaeological education typology was redefined in some cases following the analysis of the results. It is also noteworthy that two of the workshops were redefined from providing examples of archaeological education to providing examples of arts

education inspired by archaeology. Significantly, programmes developed by archaeologists or delivered by archaeologists had a much stronger alignment to archaeological theories (as opposed to educational theories) than programmes led by specialist educators without a background in archaeology. Another result which became apparent through this analysis is that there did seem to be a tentative link between the positive impact of the workshops on pupils' creativity and an increase in their personal empowerment. These statements give a flavour of the conclusions drawn from the analysis presented here which is set out and explored in more depth throughout this chapter.

6.2 Typology of archaeological education and case selection

A typological matrix for archaeological education was set out in Chapter 5 which established a method for categorising archaeological education programmes in terms of their practical approach and whether or not they are content based (i.e. they deliver information about the past) or process based (i.e. they are based on using archaeological methods). This typological matrix has been populated with the names of different organisations offering archaeological education programmes and this is based on information drawn from the responses of organisations to the questionnaire survey sent out which was also described in Chapter 5. The typology has been set out in Table 3 below.

		Content focussed	Process focussed
Practical approach	Working with artefacts	Hertfordshire Heritage Service Winchester Museum Service English Heritage: Fort Brockhurst Yorkshire Dales National Park Authority West Berkshire Museum Norfolk Museums and Archaeological Services Albion Archaeology Arbeia Roman Fort and Museum Bede's World The National Trust: Corfe Castle Wiltshire Heritage Museum	Surrey County Archaeological Unit: Heritage Enterprise Canterbury Archaeological Trust Colchester Museums Wessex Archaeology Stockport Metropolitan Borough Council: Heritage Education Suffolk County Council Archaeological Service
	Fieldwork	Butser Ancient Farm	Institute of Archaeology, UCL: Widening Participation Unit Worcestershire Historic Environment and Archaeology Service Somerset County Council: Historic Environment Service Canterbury Archaeological Trust West Yorkshire Advisory Archaeology Advisory Service Somerset County Council: The Peat Moors Centre Hampshire and Wight Trust for Maritime Archaeology Museum of London
	Site tours	The National Trust: Corfe Castle Sussex Archaeological Society: Fishbourne Roman Palace Wiltshire Heritage Museum Weald and Downland Open Air Museum English Heritage: Education North Team Roman Baths Museum The Cathedral Church of St Peter in Exeter Dartmoor National Park Authority Butser Ancient Farm Bede's World Somerset County Council: The Peat Moors Centre	Exmoor National Parks Authority Historic Environment Service: Somerset County Council Canterbury Archaeological Trust Hampshire and Wight Trust for Maritime Archaeology
	Experimental and scientific	Somerset County Council: The Peat Moors Centre Butser Ancient Farm East Sussex Archaeology and Museums Project The Ancient Technology Centre, Cranborne Chase	Wessex Archaeology Suffolk County Council Archaeological Service East Sussex Archaeology and Museums Project The Ancient Technology Centre, Cranborne Chase
	Arms length archaeology	English Heritage: Education North Team Buckingham County Council, County Archaeological Service Herefordshire Archaeology Museum of London Hampshire and Wight Trust for Maritime Archaeology	Heritage Education Project Outreach Worcestershire Historic Environment and Archaeology Service Canterbury Archaeological Trust West Yorkshire Advisory Archaeology Advisory Service Cheshire County Council: Natural and Historic Environment team Hampshire and Wight Trust for Maritime Archaeology

Table 3 Typology of archaeological education with the organisations selected highlighted in bold.

This typology is important because it was used as the basis for selecting the approaches to archaeological education to be investigated. The rationale for selecting the approaches, and therefore the organisations, was set out in Chapter 5 (pp. 214-218), but in summary the decision was taken to select five different approaches spread across the typology having discounted arms length archaeology. The organisations which were selected have been highlighted in bold and this shows that in fact many of the organisations selected offered programmes crossing different categories which meant that in some cases several examples of the same category investigated.

Table 4 (below) shows the case studies at a glance and indicates which programmes were investigated, what the typological category for each of those was, and the age and number of pupils who took part in each individual workshop. This table gives an idea of the spread and range of the research. It also gives the date when each workshop was observed. The case studies below have been presented to reflect this chronological sequence.

Organisation	Workshop/ Programme	Typological category	Date of workshop	School No.	Year Group	No. of pupils
National Trust: Corfe Castle	Site tour	Content focussed site tour	28 th June 2007	1	6	25
	Classroom based study session	Content focussed working with artefacts	12 th July 2007	2	4	24
	Classroom based study session	Content focussed working with artefacts	13 th July 2007	3	7	26
	Classroom based study session	Content focussed working with artefacts	22 nd July 2007	4	5	26
Bede's World	Anglo-Saxon Life	Content focussed working with artefacts and site tour	25 th September 2007	5	4	20
Somerset County Council: Peat Moors Centre	Iron Age Life	Content focussed site tour	29 th April 2008	6	Reception – 2	10
	Iron Age and Archaeology	Content focussed site tour and processed focused fieldwork	15 th May 2008	7	4	34
	Iron Age and Archaeology workshops	Content focussed site tour and processed focused fieldwork	10 th June 2008	8	4	33
Hampshire and Wight Trust for Maritime	Recording Hulks at Forton Lake	Processed focussed fieldwork	26 th June 2008	9	3	33
Wiltshire Heritage Museum	Artist led workshop at Avebury	Content focussed site tour	24 th February 2009	10	3 -4	30
	Artist led workshop in Wiltshire Heritage Museum	Content focussed working with artefacts	6 th March 2009	11	3-6	25
	Museum handling session	Content focussed working with artefacts	21 st May 2009	12	5-6	31

Table 4 Case studies at a glance, showing programmes investigated, number of schools and pupils taking part in each programme, the pupils' year group and the dates each group was observed and assessed.

6.3 Archaeological Education at Corfe Castle

101 pupils from four schools aged between eight and 12 years old took part in two different workshops at Corfe Castle. School 1 took part in a site tour of the castle itself and Schools 2-4 took part in a classroom based study session. The results from the workshops have been summarised in Table 5. Full data tables can be found in Appendix H. A brief summary of the socio-economic profile of pupils at the schools has also been given in Table 6.

School No.	No. of pupils	Age of pupils (in years)	Workshop name	Pupils who experienced a positive change in their creativity (%)	Fit to curriculum	Workshop category (post analysis)
1	25	10-11	Castle tour	28%	Loose fit to history	Content based site tour
2	24	8-9	Classroom based study session	63%	History and geography	Process driven working with artefacts
3	26	11-12	Classroom based study session	65%	Loose fit to history and geography	Content focussed working with artefacts and exhibition
4	26	9-10	Classroom based study session	42%	Loose fit to history	Content focussed working with artefacts and exhibition

Table 5 Summary data table of results for the schools visiting Corfe Castle showing the percentage change in creativity, fit to the curriculum and typological category for each workshop.

School No.	Free school meals	Ethnic diversity	SEN	Local Deprivation	Rural/ Urban	Source
1	Unknown	Significant	Average	Moderate	Urban	Jardine 2004
2	High	High	High	High	Urban	Missin 2006
3	Unknown	Significant	Average	High	Urban	Clifton 2007; Southwest Observatory 2010
4	Low	Low	Average	Unknown	Rural	Mikdadi 2004

Table 6 Socio-economic information for each of the schools taking part in workshops at Corfe Castle (Special Educational Needs has been abbreviated to SEN).

Background

Corfe Castle is a ruined Norman castle near Wareham in Dorset (see Figure 4). Figure 5-7 give a flavour of the educational offer at the castle. The following information was provided by White, who heads the education team at Corfe Castle (P. White pers comm. 5th June 2007): about 5000 school pupils *per annum* take part in the educational programme. Two different types of workshop are offered to schools, a guided tour of the castle site tour or a staff led classroom based study room session exploring life at the castle. The activities available as part of the classroom based study session were developed between close liaison between the education team and the National Trust archaeologist for their Wessex region.

In the response to the questionnaire initially sent out staff from Corfe Castle indicated that they develop their programmes based on their prior knowledge of teaching and learning and in some cases using the ILfA framework.



Figure 4 A view of Corfe Castle showing the site in its landscape.



Figure 5 A child in replica armour at the Castle © National Trust

The programmes are designed to support the National Curriculum for history (National Trust 2013). At Key Stage 1 the workshops are intended to teach pupils about life in castles and homes through time and at Key Stage 2 the workshops have been targeted towards helping pupils develop their understanding of medieval life. Geographical themes are also explored and White (pers comm. 5th June 2007) stated that she intends that the workshops will have a positive impact upon pupils' social skills. For a full description of the workshops at Corfe Castle see Appendix J.



Figure 6 Pupils taking a staff led castle tour © National Trust.



Figure 7 A pupil trying on replica costume during the classroom based study session, assisted by one of the Castle learning team © National Trust.

Observations

All the pupils observed seemed to be engaged in the workshops, characterised by a willingness to answer questions, excited yet relevant chatter, and focussed listening to the education officers, but the pupils taking part in the tour were clearly restless towards the end and the pupils from Schools 3 and 4 seemed to enjoy pressing buttons in the public display area without knowing why. When one girl from School 3 was questioned about what she was doing she said she ‘. . .just want to dress up and play”.

The classroom based study session offered pupils the opportunity to dress up in medieval armour and costumes and this was clearly very popular with the pupils and their teachers. In fact following the introductory talk at the beginning of the workshop helping pupils with this activity occupied the education officers entirely and left the other pupils taking part in different activities unsupported, but free to explore the other activities and displays.

The intended outcomes on the part of the teacher from School 2 were clear: to learn more about the history of Corfe Castle, particularly in terms of its place in the landscape which broadly matches those advertised by Corfe Castle. The overall picture of the pupils' intentions is unknown. However, one pupil was clear about his hopes for the workshop when he asked whether or not the pupils would have the opportunity to find things in the ground; the inference being that he wanted to take part in some hands-on archaeology activities, specifically excavation. The intentions of the teacher from School 1 were slightly more ambiguous; she hoped that the link between the school and the site would be drawn through the mention of the historical figure of Lady Bankes, who had once occupied the Castle and was buried near to School 1. However, the trip was primarily part of a residential visit so other intended outcomes stated by the teacher were less academic and based around enjoyment. This also seems to have been the case for the teachers Schools 3 and 4. The actual intentions of pupils from these schools are unknown, but an inference can be taken from the pupil referred to previously who wanted to 'play'. Thus it can be surmised that amongst their intentions was the desire to have fun and to enjoy themselves.

Results and discussion

The observations of the school visits to Corfe Castle indicated that the practical approaches employed can be mapped against the full range of relevant theories and this is demonstrated by the mapping of the observations and pupils GLO assessment responses. The details of how the

programmes were mapped against the various characteristics associated with the different theories can be found in Appendix I.

The statement that the programmes at Corfe Castle can be mapped against the full range of theories needs further qualification since there were differences between the results of the different schools. It is my purpose here to describe the results in terms of the relevant theories and discuss what the implications of these results are. A discussion of the value of the programmes for the pupils engaging with them will also be presented with reference to the theoretical context.

One common feature across all the programmes at Corfe Castle was a link to the processual characteristic of an emphasis on archaeological material (the remains of the castle and artefacts) which was revealed through both the observations and the pupils' generic learning outcome assessment responses. For example, during the castle tour the education officer encouraged the pupils to 'see' the castle within its landscape context and think about why the castle was located in its particular position. This indicates that the practical approach being taken was consistent with processual archaeology in that there was a focus on using archaeological evidence (Hodder 1991a, 8 [1986]) (in this case the landscape) to understand wider issues around settlement and defence. Here this approach also went hand in hand with the social constructivist perspective of focussing on 'big concepts' identified by Copeland (2006, 89) (in this case settlement). Thus, this practical approach of using data in an explicatory manner can be deconstructed in terms of both processual archaeology and social

constructivism. This result may also be viewed in terms of the of professional archaeologists collaborating with educators in the development of these programmes which seems to have has the practical impact of marrying archaeological theory with educational theory.

Also common to all the programmes was a multi-faceted approach which engaged pupils across a range of learning styles and encouraged them to use a varied range of behaviours associated with multiple intelligence theory. The programmes at Corfe Castle provided pupils with a sensory rich environment to explore: the Castle itself is visually impressive and pupils were encouraged to move around it and explore it with a range of senses; the classroom was set up with a range of interesting interactive exhibits, the dressing up activities were physically engaging and the exhibition area presented information in a lively and varied way. Thus, whether or not the education officers and team who developed the programmes had enshrined ideas consistent with both learning styles theory and multiple intelligence theory consciously is unclear. However, there were two differences between the tour and the classroom based study session in relation to these theories. Ellick (2008, 264) identified opportunities for problem solving as a feature of learning styles theory and in this case there were plentiful opportunities for this provided by the interactive exhibits in the classroom. However, pupils during the tour were not engaged in this manner. With regard to multiple intelligence theory, pupils were given much more freedom to choose to work alone during the classroom based study session (which is potentially a feature of a learning focussed towards pupils with intrapersonal intelligence (Gardner 1993a)), but were marshalled around and

required to focus on the education officer during the tour. Opportunities for self-exploration could have been built in (e.g. see p. 255).

The programmes also offered pupils opportunities to have direct experiences which is consistent with ELT as discussed by Richards (1992, 158), and was most clearly seen through the dressing up activity during the classroom study session; the weight of the clothes was something in particular that surprised the pupils and was revealed through their GLO assessment responses, which also indicates that they went through a process of cognitive dissonance and assimilation as described by Davis (2005, 22) and Dennick(2008, 44 [1999]) (although this was not a feature of the experiential elements of the castle tour). Similarly, the dressing up activity was also associated with the pupils using empathy to understand what the lives of people in the past were like (e.g. see Figure).

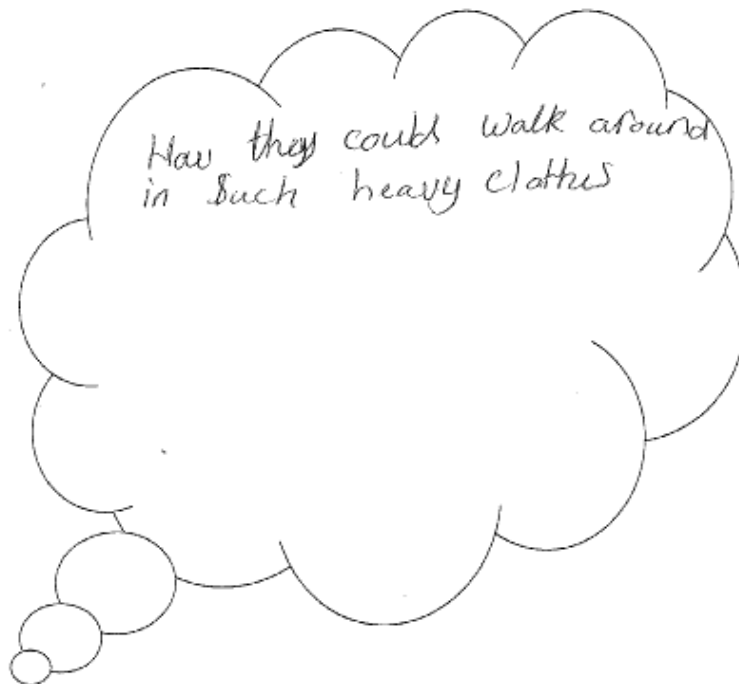


Figure 8 GLO assessment response of a pupil from School 2 showing empathy with regard to wearing heavy clothes.

Thus, the dressing up activity in particular draws together in practice ideas associated with experiential learning theory, constructivism, and post-processual archaeology. However, it should be noted that the experiential learning cycle was not completed during the workshops. There is no sense of how the pupils having had this experience made a cognitive leap and will behave differently in the future. What is missing is how understanding from the past impacts upon the present and the future. In these terms the knowledge that clothing was heavy and cumbersome in the past may have been interesting, but it did not directly translate into contemporary relevance.

The classroom based study sessions were carefully planned and directed, but pupils had ample opportunity to freely explore which is consistent with a constructivist approach (Gredler 2005, 85 [1986]). However, this was counterbalanced by the influence of the education officer during the led parts of the programme and it is here that different styles of the education officers and the differences between the schools led to different approaches being observed. For example, the paid education officer employed teaching tactics associated with socio-cultural perspectives which included active questioning (e.g. see Tobin 2000, 244), whereas the voluntary education officer took a much more didactic approach and employed a lecture style when delivering her introduction. This suggests that despite the format and content of the programmes being predetermined the actual delivery of archaeological education depends on the personal influences of the education officer who is delivering the programme. Therefore, just as the different professional backgrounds and theoretical influences of those who developed the programmes impacts upon the

practical approaches taken, so do the backgrounds and influences of those engaged in delivery.

However a didactic focus on facts and figures and a narrative style was also evident across the programmes and this seemed to be related to both the styles of the education officers (as discussed above), but also the intended outcomes of the programmes which are focussed towards the developing historical knowledge and linked to the National Curriculum. As such, there was a definite aim to impart knowledge about the medieval period to pupils and this was reinforced by the education officers' introductions. Thus a direct link can be drawn between the National Curriculum and the use of a didactic approach at Corfe Castle.

My analysis of the value of the programmes at Corfe Castle for the pupils who visited begins with an assessment of what the pupils enjoyed most. In the first instance it is true to say that all the pupils I observed were highly engaged and focussed and this was characterised by relevant questions and intent listening when the education officers were talking. For example, during the visit by School 2, I observed one child shuffling forward to listen to the introduction more attentively and although initially very restless the pupils from School 3 soon settled down as the education officer changed her pace to match the needs of the class. The only exception to these observations of attentiveness came from the pupils from School 1 who became slightly restless towards the end of their workshop as lunchtime approached. This may also be explained through the use of active questioning and free-choice exploration during the classroom based study sessions which allowed pupils to engage on their terms, whereas the during

the tour the pupils had fewer opportunities to explore at their own pace or attend to activities which particularly interested them.

One of the pupils' from School 3 wanted to 'find things in the ground' and a pupil from School 4 wanted to 'dress up and play', which indicates that some of the pupils at least wanted to get actively involved in the programme. The classroom based study session gave pupils ample opportunity for active involvement and the GLO assessment responses of the pupils indicates that the activity the pupils most enjoyed was trying on the medieval costumes. Therefore, active experience seems to have been valued by the pupils. However, the pupils own responses also indicated that they also enjoyed the storytelling aspects of the programmes. In particular, the grotesque and gory stories about medieval life particularly delighted the pupils with many references to King John's 'exploding tummy' being documented in the pupils' GLO assessment responses (e.g. see Figure). This reinforces a point made by a teacher from School 1 who commented 'the gorier the better'. In terms of the theoretical context for the programmes a link can be drawn between the storytelling aspects of the programmes and post-processual archaeological features focussing on agency and the use of empathy to understand and explore the past. Therefore, the enjoyment of the programmes at Corfe Castle can be linked explicitly to two theories, specifically, experiential learning theory and post-processual archaeology.



Figure 9 GLO assessment response of a pupil from School 1 showing the influence of storytelling and the emphasis on individuals in the past.

The discussion of whether or not the programmes at Corfe Castle represent an effective model for teaching and learning falls into two parts, one focussing on how the programmes were taught and the other focussing on how they enabled pupils to learn. The discussion also encompasses a brief evaluation of how effective the programmes were in achieving the intended outcomes.

The pupils' GLO assessment responses proved to be very useful in determining how effective the programmes were. These results indicated that the programmes at Corfe Castle were poor in terms of enabling the pupils to develop new skills or consolidate existing ones with very few of the pupils GLO assessment responses focussing on skills (see Appendix I). However, the programmes were much more effective at helping the pupils to develop greater knowledge and understanding, with 59% and 54% of the GLO assessment responses falling into this category for Schools 1 and 3 respectively (e.g. see Figure 10).

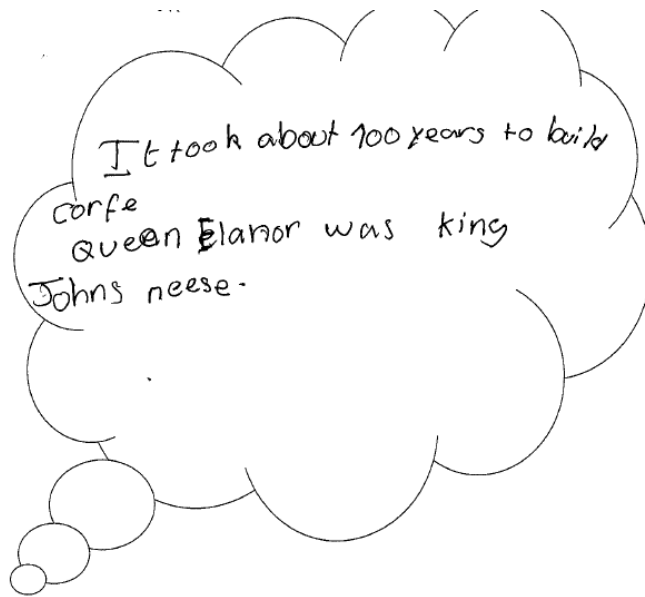


Figure 10 GLO assessment response of a pupil from School 3 showing evidence of knowledge and understanding.

Corfe Castle advertises the learning outcomes of the programmes as being centred on developing pupils' knowledge of life in castles and the medieval period. Thus the intended outcomes on the part of Corfe Castle are focussed on developing pupils' knowledge rather than their skills and in this light the bias towards knowledge over skills is expected. In this case the emphasis on knowledge can be linked to delivery mechanisms associated with experiential learning theory and problem solving approaches associated with social constructivism and learning styles theory. At Corfe Castle it can also be linked to the use of didactic 'facts and figures' and narrative based approaches.

Interestingly, the teachers from Schools 1, 3 and 4 were not formally linking the visits to curriculum work whereas the teacher leading the group from School 2 was, yet of all the schools these pupils showed the lowest

percentage of GLO responses pertaining to knowledge and understanding. This perhaps suggests for these pupils (who were the youngest visitors) problem solving and experiential approaches, whilst enjoyable were not particularly effective in helping them develop their knowledge. Or perhaps there is something about the workshops being linked to the curriculum which in itself influenced this result. The effectiveness of workshops linked to the curriculum is considered in further detail in section 6.8 of this chapter.

As mentioned previously in this section all the pupils showed indications of engagement throughout the workshops. About a third of all the pupils' GLO assessment responses focussed on enjoyment, inspiration and creativity, although, this was notably much higher, at nearly 50%, for School 2 (and therefore perhaps enjoyment outweighed knowledge and understanding here). Engagement suggests that the pupils were in a mindset where they were able to learn and be taught and as also previously discussed the use of active questioning and free-choice exploration seemed to maintain the pupil's engagement.

The classroom based study sessions involved significant periods of time where the pupils were able to freely choose what to do. The choices centred on interactive exhibits and the exhibition area where some interpretation and limited guidance was provided. Also because all of the adults tended to focus on helping the pupils' who were trying on the historic costumes, the pupils who were not dressing up were left unsupported allowing them to explore unhindered. Given the lack of adult intervention either directly or indirectly through written instructions this workshop was not

particularly effective as a model for teaching. However in fairness the programmes include some indicators of effective teaching, e.g. the use of active questioning, by one of the education officers in her introduction served to scaffold the pupils and helped to reveal the information the education officers intended. Conveying information through story and creating experience through imagination was also quite effective, but the most effective approach observed relates to how pupils were engaged across a range of learning styles and intelligences which maximized the appeal of the workshops for a wide range of pupils.

In contrast I believe that the workshops offered pupils better opportunities to learn than be taught. Specifically, pupils were able to use their problem solving skills individually and in small groups, although this learning may have been more focussed on life skills such as co-operation and communication than knowledge based information about medieval life.

Enabling pupils to learn effectively can be associated with increased empowerment. Additionally, the focus on the programmes on direct experience and experiential learning is also associated with empowerment (Griffin, 1992). There is uncertainty over whether or not the empowerment associated with experiential learning can be translated into social justice (see p. 142). However, insight into this question is provided by Friere's (2000, 73 [1921]) critique of education discussed previously where he associates oppression with stifled creativity (see p. 187). Therefore it is not unreasonable to conclude that increased creativity can be associated with enhanced social justice. The overall positive increase in creativity for Schools

1 and 4 was relatively low, but stood at over 60% for Schools 2 and 3. The socio-economic profile for pupils from these two schools indicates that they faced greater social and educational disadvantages than the other two schools observed and therefore it is tempting to conclude that the increased creativity observed amongst these pupils was due to the programmes having a positive and empowering influence on the pupils which countered their normal experiences. Given the wide range of theoretical approaches identified it is difficult to say with certainty how this result relates to the theoretical framework for the workshops, but it may be attributed to the diverse range of theoretical approaches used and in particular the ability of the pupils to engage in different ways and on their own terms. The possible reasons how the theoretical framework for archaeological education may impact upon empowerment and social justice is discussed more fully towards the end of this chapter when the case studies are brought together for discussion (see section 6.8).

However, what the results from the programmes at Corfe Castle show is that a range of educational and archaeological theories underpin archaeological education. At Corfe Castle the different theoretical influences seem to have been applied largely unconsciously translated through the personal influences of the professionals who developed the programmes, those that delivered them and the requirements of the National Curriculum. Often different practical approaches seamlessly melded ideas associated with different theories, such as the dressing up activity which can be deconstructed in terms of constructivism, post-processual archaeology and experiential learning theory.

Pupils responded favourably to and enjoyed opportunities for direct experience (e.g. see Keen 1999, 238), but also enjoyed the experience of using their imaginations through storytelling. The wide range of theories underpinning the programmes meant that the programmes engaged all the pupils at some level, although this strategy did not always convey the information intended by the programme designers. Thus the programmes at Corfe certainly did provide learning experiences, but perhaps did not always provide such effective models for teaching.

Whether or not the programmes empowered pupils in terms of social justice is somewhat ambiguous. There are suggestions that through the increased creativity of pupils from the most disadvantaged schools observed that there may be a link between the programmes and greater social empowerment, but there is not enough clear evidence at this stage to make this conclusion with certainty or to properly be able to explain the results.

The initial typological categorisation was upheld for School 1. However, the categorisations were revised for Schools 2, 3 and 4. For School 2 the archaeological approach originally postulated remained, but based on the generic learning outcome responses this was changed for School 2 from content based to process based since the pupils' GLO assessment responses seemed to indicate the archaeological data and archaeological processes had more of an impact upon them than content based information. For schools 3 and 4 the initial categorisation was upheld but added to: the significant proportion of time the pupils spent in the exhibition area and the clear enjoyment they derived from those activities have led to a new category being added, exhibition, which describes the use

of secondary sources derived from archaeological information in a display form.

6.4 Archaeological Education at Bede's World

A single school party of 20 pupils aged eight to nine years old from School 5 were observed and assessed during a school trip to Bede's World in 2007. It is important to note that School 5 is an independent school although they choose to follow the National Curriculum. The pupils took part in the Anglo-Saxon Life workshop and the results from this case have been summarised in Table 7 and described and discussed in the following paragraphs. Full data tables can be found in Appendix H. A brief summary of the socio-economic profile of pupils at the school has also been given in Table 8.

School No.	No. of pupils	Age of pupils (in years)	Workshop name	Pupils who experienced a positive change in their creativity (%)	Fit to curriculum	Workshop category (post analysis)
5	20	8-9	Anglo-Saxon Life	60%	History	Content focussed site tour and living history

Table 7 Summary data table of results for the school visiting Bede's World showing percentage change in creativity, fit to the curriculum and typological category for each workshop.

School No.	Free school meals	Ethnic diversity	SEN	Local Deprivation	Rural/ Urban	Source
5	n/a	Moderate	Low	n/a	Urban	Independent Schools Inspectorate 2010

Table 8 Socio-economic information for the school taking part in a workshop at Bede's World.

Background

Bede's World is museum in Jarrow and is named after the early medieval monk and historian Bede, who lived and worked at the site over 1200 years ago. The museum explores life in early medieval Northumbria (Bede's World 2009) through traditional style museum displays, interactive exhibitions, the medieval monastic ruins, and a reconstructed medieval farm (complete with timber-framed buildings and rare breed animals, e.g. see Figure 11). Over 70,000 people visited Bede's World in 2007/08 and of these nearly 28,000 were school visits (Bede's World 2008, 6). In the response to the questionnaire initially sent out staff from Bede's World did not indicate what theories they used to develop their programmes.



Figure 11 Reconstructed farm buildings at Bede's World Image © Bede's World.

The programme for schools is based around four workshops, Boy at the Monastery, Anglo-Saxon Life, the Scriptorium and Religious Life at St Paul's

(Bede's World 2009). These workshops can be tailored to meet the needs of pupils from Key Stage 1-4. All the workshops were put together with the history curriculum in mind (Bede's World 2009). School 5 took part in the Anglo-Saxon Life workshop which is the workshop which draws most extensively on archaeological knowledge and information. The workshop observed was led by a paid member of the education team. The education officer had a teaching qualification and teaching experience but no archaeological training.

Observations

The Anglo-Saxon life workshop is divided into two sections: the first starts with an interactive introduction in the Bede's World classroom where pupils take part in a question and answer session about Anglo-Saxon life. Pupils are given opportunities to handle archaeological artefacts during this part of the workshop which lasts for about half an hour. This handling activity was mainly focussed on just two pupils who were able to dress up as an Anglo-Saxon boy and girl. The second part of the workshop was delivered outside and consists of a tour of the reconstructed Anglo-Saxon farm. The tour lasted for about an hour.

The classroom section of the workshop was much more rigid in terms of the delivery structure and approach than the tour. The education officer seemed to have a fixed idea for what the pupils should learn during the classroom based introduction, but had a more relaxed approach during the tour. Pupils were expected to follow a set route around the farm, but were

given opportunities to explore and the education officer more was open to multiple interpretations during this section of the workshop.

The purpose of the educational workshops at Bede's World is to support the history curriculum and in particular the Anglo-Saxon Life workshop is intended to support the QCA Anglo-Saxon Settlers and Invaders unit. The similarities and differences between modern life and Anglo-Saxon life are explored. The teacher in charge of the school party hoped that the workshop would help pupils learn about the period and had booked the visit with this specific aim in mind. Thus the driver for this visit was directly and firmly linked to the history curriculum. The intentions of the pupils were not revealed through the course of the observation.

Results and discussion

Observations of the programme at Bede's World revealed the impact of influences across the range of relevant theories (see data table in Appendix H for further details). In terms of archaeological theories characteristics associated with both processual and post-processual archaeologies were observed: for example, the education officer initiated a discussion about the different assemblages found in Anglo-Saxon male and female graves to discuss gender differences and ideas about religion in Anglo-Saxon England and thus demonstrated the idea of explaining the archaeological record rather than just presenting it (see Hodder 1991a, 8 [1986]). In doing so she effectively linked a processual approach with a discussion of 'big concepts' and this can be interpreted as representing an aspect of social constructivism as described by Copeland 2006, 89). The discussion was hinged around an

activity in which two pupils from the class were asked to dress as an Anglo-Saxon boy and girl. Having pupils from the class take on the 'role' of Anglo-Saxons encouraged the rest of the class to develop empathetic responses and to focus in on what the lives of individual Anglo-Saxons might have been like, thus also embedding the concept of using empathy to understand the past as described by Hodder (1991a, 187). Thus this activity can be theoretically deconstructed in terms of both processual and post-processual archaeology and social constructivism.

The education officer also explained how the knowledge about the Anglo-Saxon period was derived and emphasised the importance of the professional role of the archaeologist in this, which I have previously associated with a positivist stance (see Watkins 2012, 662). This emphasis, along with the absence of looking at alternative interpretations is consistent with how the programme was developed in that it was delivered by education staff with teaching backgrounds but supported by information supplied by archaeologists from Bede's World. It can be viewed that the emphasis on the professional role of the archaeologist was the way in which the education officer validated the knowledge that she was essentially just passing on, since she probably did not have the flexibility or depth of knowledge to feel confident in discussing alternative interpretations that were 'off-script'.

Further consideration of the programme also reveals the presence of characteristics associated with the other theories: initially the education officer tried to find out what the pupils prior knowledge was and thus employed a constructivist approach as advocated by Copeland (2004a, 140; 2006, 90), but during the classroom based part of the workshop the

education officer employed approaches which were more closely aligned to socio-cultural perspectives, in particular social constructivism as discussed above. For example, she frequently used active questioning. She also used approaches which targeted different learning styles and engaged pupils' different learning behaviours; although in the classroom this was more limited than during the next part of the workshop. In the classroom, visual, auditory and to some extent tactile cues were used (see Bartlett and Burton 2009, 132 [2007) through discussion by looking at, and in some cases handling artefacts. This part of the workshop did not seem to effectively draw upon the unique resources at Bede's World and could have been effectively delivered by a teacher in a school with a loan collection and a lesson plan.

The second part of the workshop was a tour of the reconstructed Anglo-Saxon farm and this provided a much richer educational experience. Pupils were led around the farm following a set route, but were given opportunities to explore the authentic context of the farm for themselves. This contrasts with the tour at Corfe Castle which was more rigid. The Bede's World tour however can be viewed as enshrining a constructivist approach, not only because the pupils were given freedom to explore but also because there were opportunities for the pupils to experience cognitive dissonance and assimilation through re-evaluating what they thought about the size of farm animals: they seem to have been surprised about the smaller size of the animals and therefore, must have previously assumed that Anglo-Saxon animals would be the same size as modern animals and it clearly took them some concerted effort to absorb the idea that Anglo-Saxon breeds were smaller (e.g. Figure 12). This cognitive construction of knowledge did not

seem to be in any way planned by the education officer, but resulted from the pupils exploring an aspect of the reconstructed farm which was interesting to them and it did reveal information about Anglo-Saxon life in terms of animal husbandry.

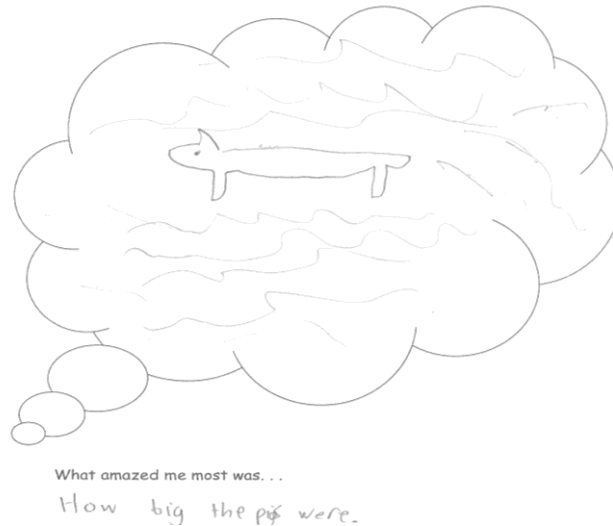


Figure 12 An example of a pupil's generic learning outcome assessment response from School 5 showing an interest in the size of the animals at Bede's World.

As well as allowing the pupils to explore the farm freely the education officer did intervene and use language to guide the pupils in developing their understanding of the Anglo-Saxon period: for example, she introduced the pupils to Anglo-Saxon entertainment through riddles. This could be characterised against learning styles theory in terms of the use of auditory information, but also against multiple intelligence theory as a use of language and logic.

The farm tour was also richer in terms of sensory stimulation than the classroom session. Pupils were able to move around and actively use the space, to see what Anglo-Saxon buildings looked like (e.g. see Figure 13), to touch them and appreciate the farm as an outdoor experience and thus the

correlation between learning styles theory and multiple intelligence theory was greater during this part of the workshop than in the classroom where the range of learning styles engaged and behaviours encouraged was narrower.

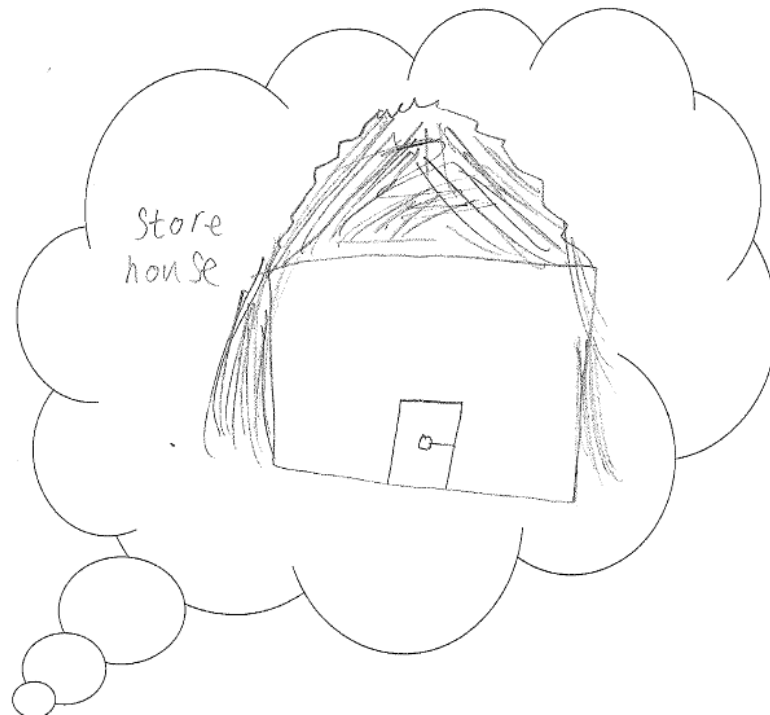


Figure 1 GLO assessment response of a pupil from School 5 showing evidence of interest in Anglo-Saxon buildings.

Pupils also engaged more thoroughly in direct experience during the farm tour and given the free exploration opportunities during the tour had time and space to reflect. However, in some cases this was managed by the education officer, for example, she led the pupils into a small building, known as a sunken featured building and shut the door. She asked the pupils to take a moment to sit quietly to feel what it was like in the building and then asked them to comment. This approach can be deconstructed as characterising the early stages of experiential learning following Richards 1992. However, as was the case with the programmes from Corfe Castle, the

experiential learning cycle was not closed through an awareness of how the pupils could or would use this new knowledge, which demonstrates Richards' (1992, 161) critique of ELT discussed in Chapter 3.

The pupils themselves seemed to be very engaged throughout the whole programme and showed enjoyment through excited but relevant chatter to each other during the farm tour. During the classroom part of the programme the pupils were keen to answer questions and put up their hands accordingly. However, the GLO assessment responses indicated that the pupils were most interested in the animals (e.g. see Figure 12 above). This may indicate that the pupils showed high levels of naturalistic intelligence, or alternatively it may mean that they focussed on naturalistic intelligence due to the presence of the animals. In either case what is important is that opportunities existed for pupils to engage different intelligences.

The evidence from the pupils' GLO assessment responses does indicate that the programme helped the pupils to develop greater knowledge and understanding of the Anglo-Saxon period as the majority of the pupils' GLO assessment responses were categorised in this way (see Appendix I). The classroom based part of the session was information heavy and was underpinned by a range of progressive educational theories, but it seems to have been the free-choice exploration of the farm which was most effective in the pupils developing knowledge about the Anglo-Saxon period, mainly focussed around the animals and the buildings (e.g. see Figure 12 and Figure 13). This correlates well with the intended learning outcomes for the programme both from the perspective of the school and Bede's World by

focussing on knowledge about Anglo-Saxon life. Thus, I suggest that the workshop was effective in helping the pupils to learn.

None of the pupils GLO assessment responses were associated with the skills GLO category either in terms of either the development of new ones or the consolidation of existing ones. However, the pupils did show indications of engagement as discussed above. I believe this can be largely attributed to the influence of constructivism, multiple intelligence theory and learning styles theory which worked together to enable pupils to engage on their own terms, but within an overall structure directed by the education officer which allowed them to explore Anglo-Saxon life.

The tour section of the workshop allowed for child-led exploration which can be mapped against both constructivism (e.g. Henson, Bodley and Heyworth 2004) and experiential learning theory (e.g. Richards 1992) in particular. These progressive approaches to learning can be broadly defined as personally empowering and this assertion is strengthened by the positive impact of the workshops on the pupils' creativity. The creativity of 60% of the pupils increased following the workshop and throughout this thesis increased creativity has been associated with increased empowerment following an interpretation of Friere's (2000 [1921]) ideas. However, it can be argued that the pupils from School 5 enjoyed a relatively privileged socio-economic position given that their parents were wealthy enough to send them to an independent school and therefore this suggests they did not generally feel socially oppressed. Thus the creativity results in this case may merely relate to the enjoyment and inspiration of the workshop rather than an impact upon social justice issues.

Initially, this workshop had been categorised as a content focussed site tour with experimental and scientific archaeology, but following the observation this categorisation is questionable. The workshop was clearly content focussed (in terms of learning about the Anglo-Saxon period) and a site tour did take place, but it cannot really be maintained that the workshop covered scientific and experimental archaeology. The results of experimental archaeology were displayed to the pupils as the buildings and other features of the farm, but the pupils did not get involved with the experimental processes. Thus it may be more accurate to describe this part of the workshop as living history.

In summary the workshop observed at Bede's World can be deconstructed in terms of a range of different theories which relate to the nature of the resources and the unconscious influences of the education team that developed the programme. The programme can be viewed in two distinct halves, with the classroom session making good use of archaeological material and drawing upon archaeological theories, but essentially following a rigid, although fairly progressive format. The farm tour however made better use of the unique resources of Bede's World and allowed the pupils to engage with the programme across a wider range of learning styles and intelligences.

The broad range of theories which underpinned the workshop was characterised by flexible and responsive practical approaches enabling the pupils to learn effectively. The programme was also effective in helping to deliver the intended learning outcome of learning about life in the Anglo-Saxon period without resorting to a didactic lecture style to ensure the

'correct' information was imparted. The pupils seemed to have particularly enjoyed finding out about the differences between modern and Anglo-Saxon breeds of animal. The evidence provided by the overall impact upon pupils creativity seems to suggest the programme was at least individually empowering, although the link between this and a wider impact upon social justice cannot be concluded in this case.

6.5 Archaeological Education at the Peat Moors Centre

In 2008 77 pupils from three schools (School 6, School 7 and School 8) aged between four and nine years old who took part in two different workshops at the Peat Moors Centre were observed and assessed as part of this study.

The results have been analysed and summarised in Table 9 below and discussed thereafter. Full data tables can be found in Appendix H. A brief summary of the socio-economic profile of pupils at the school has also been given in Table 10.

School No.	No. of pupils	Age of pupils (in years)	Workshop name	Pupils who experienced a positive change in their creativity (%)	Fit to curriculum	Workshop category (post analysis)
6	10	4-7	Iron Age Life	56 %	History:	Content focussed living history
7	34	8-9	Iron Age Life and Archaeology	79%	Loose link to history	Content focussed living history and working with artefacts
8	33	8-9	Iron Age Life and Archaeology	58%	History	Content focussed living history and working with artefacts

Table 9 Summary data table of results for the schools visiting the Peat Moors Centre showing the percentage change in creativity, fit to the curriculum and typological category for each workshop.

School	Free school meals	Ethnic diversity	SEN	Local Deprivation	Rural/Urban	Source
6	Unknown	Low	Variable	Variable	Rural	Greenhalgh 2006
7	Average	Average	Average	Average	Urban	Watters 2007
8	n/a	Low	Low	n/a	Rural	Independent Schools Inspectorate 2009

Table 10 Socio-economic information for each of the schools taking part in workshops at the Peat Moors Centre.

Background

The Peat Moors Centre was a reconstructed Iron Age village based on the archaeological evidence from the Glastonbury Lake Village (see 14 for an idea of the appearance of the site). It was located six miles away from Glastonbury in Somerset. The centre was run by the Heritage Service of Somerset County Council (E. Wills pers comm. 14th November 2007).



Figure 14 One of the roundhouses at the Peat Moors Centre.

In 2007 (the last recorded year before the workshops observed for this study) the Peat Moors Centre welcomed 37 schools (Somerset County Council 2009). Visiting schools had a choice of two archaeologically based workshops (Somerset County Council 2009), Iron Age life and Archaeology. They were developed to support the National Curriculum for history and were particularly suitable for pupils studying the Romans option of the Settlers and Invaders unit at Key Stage 2 or the Homes Through Time unit at Key Stage 1. A full account of the structure of the workshops and the activities offered can be found in Appendix J. The photographs below (Figure and Figure) give a flavour of some of the activities on offer.



Figure 15 The construction activities area at the Peat Moors Centre showing the erected rafters and the pupils' daubing efforts.

The class teacher from School 6 had arranged the visit to complement the pupils' study of houses and homes in history, but also intended to draw a cross-curricular link to the pupils' topic work about materials and ourselves and the world around us. School 7 visited the Peat Moors Centre as part of a five day residential visit to the area and although the teacher in charge said

the pupils had previously studied the Romans she also noted that the curriculum link was loosely based. The pupils from School 8, an independent school, visited the Peat Moors Centre as part of their history studies about the Celts.



Figure 16 Excavation in progress at the Peat Moors Centre.

Observations

The expectations of the pupils during the visits was not specifically recorded but excited chatter and shrieks of delight and focussed listening (sometimes despite very cold weather conditions) characterised clear enjoyment of the workshops. The pupils from School 6 were directly asked what part of the workshop they enjoyed the most and they unanimously declared that they most enjoyed making bread, however, the squeals of delight during the wattle and daubing activities indicates that these activities may have been a close second. One of the pupils from School 6 seemed very reluctant to get

involved and did not speak at all throughout the visit. Her teacher said that she would not speak in front of strangers and the education officer dealt with this sensitively; he did not push her to speak or get involved but gently encouraged her and allowed her to explore the site independently.

After the pupils from School 7 successfully managed to erect the rafters on the wall posts during the second construction activity they cheered, indicating their enjoyment of the task. During the excavation activity of the Archaeology workshop both pupils from School 7 and 8 worked industriously, with pupils often calling for the attention of their classmates when they found something particularly interesting. Since artefacts had been liberally planted in the excavation area the pupils were guaranteed to find many artefacts very quickly. The pupils were highly engaged in this activity and did not show any signs of boredom, on the contrary many of them wanted to continue and they were very keen to show and discuss their finds with their adult helpers. Some pupils from School 8 suspected that the excavation was simulated and asked whether the artefacts had been deliberately buried for them to find. The education officer was not truthful and said that the artefacts had not been planted. Some pupils clearly disbelieved this and although this did not seem to affect their enjoyment of the activity, it clearly misled them in terms of what archaeological excavations are really like.

Results and discussion

Characteristic features across the spectrum of relevant theories were recorded during the observations of the workshops at the Peat Moors Centre

(see Appendix H). The presence of particular characteristics and the absence of others merit further consideration with regard to what can be learnt about archaeological education. The discussion revolves around an analysis of the activities observed in regard to the range of relevant theories and then focuses on how this translates into value for the pupils from the schools who participated in the workshops.

All of the schools took part in the Iron Age Life workshop and Schools 7 and 8 also participated in the Archaeology workshop. Thus there were differences observed between the schools due to the different workshops undertaken, but there were also differences which cannot be explained by this and must alternatively be explained by other factors. To begin with I will discuss common features and then discuss the differences.

I observed a processual emphasis during all of the visits to the Peat Moors Centre. This was demonstrated by the recurrent use of artefactual data to describe the past (see Hodder 1991a, 8 [1986]). This was a common theme throughout both the Iron Age Life workshop and the Archaeology workshop. For example, during the introduction to the Iron Age Life workshop in the roundhouse, the education officer used the quern stone present to discuss how bread was made and what that meant in terms of daily life. He also related it to evidence from human remains which indicate that grinding grain using a quern stone occupied people in the Iron Age for many hours each day. Also during the Archaeology workshop the education officer grouped the artefacts by type and in particular commented on the butchery marks on the bones to discuss animal husbandry and food.

Another feature common to all the workshops was the education officer's use of active questioning to guide pupils, particularly during the introduction to the Iron Age Life workshop. Also during the Iron Age Life workshop all of the pupils had the opportunity to take part in a group problem solving activity through the erection of the rafters on the walls of a roundhouse frame. The pupils had to work together to work out how to successfully complete the task. This demonstrates a link to idea based social constructivism as defined by Gredler (2005, 87 [1986]).

The opportunity for pupils to engage in active and direct experience was also a common feature of the workshops, suggesting that elements of the workshops could also be deconstructed in terms of experiential learning theory (see Richards 1992). Specifically, for pupils to be in the environment of a reconstructed Iron Age village complete with smoky open fires was an experience in itself and this was supplemented by a number of hands-on activities such as wattling and daubing. Therefore, in this case the authentic context of the site contributed, in part, to the experiential nature of the workshops. The pace of the workshops was moderate so that there was time for pupils to reflect, but the experiential learning cycle was not completed since there was no consideration of how the experiences could influence the pupils' future behaviour.

Throughout all of the workshops information was conveyed to the pupils across the range of learning styles. The education officer primarily conveyed information to the pupils through verbal language, but also used visual cues from artefacts and the setting itself and the pupils were

encouraged through the activities to touch things and engage physically. Pupils were also able to use a range of intelligences. The outdoor setting of the Peat Moors Centre meant that pupils were encouraged to identify with a more outdoor way of life that may have been experienced in the Iron Age: for example the education officer talked about how in the Iron Age the names of trees were used as a numbering system. The only intelligence which was not engaged was musical intelligence.

Despite the varied use of approaches which can be viewed as aligned to progressive educational strategies one of the characteristics associated with didactic teaching methods was observed during all the school visits in terms of a focus on facts and figures. The education officer was clearly knowledgeable and directly transmitted a lot of information to the pupils.

The Archaeology workshop can also be deconstructed in terms of other aspects of the relevant theories, for example, ideas associated with processual archaeology can be traced through the scientific nature of excavation (see Gadsby and Chidester 2012, 514) (despite the very unscientific simulated excavation) which was verbally emphasised by the education officer during his introduction to the activity and reiterated in the plenary when he discussed the artefacts by type. He also emphasised the professional status of the archaeologist at the same time and thus demonstrated the critique of the dominance of archaeological authority discussed by Jeppson (2012, 581-582). The aims of the activity were very clear, in that it was intended to enable pupils to have a hands-on experience and to provide a platform for conveying received wisdom regarding the

interpretation of particular artefact sets, which itself follows a processual model. Alternatively, the excavation could have been run along post-processual lines by discussing a range of different interpretations for the objects uncovered and involving the pupils in discussion.

However, during the archaeology workshop pupils were enabled to make personal discoveries and construct knowledge from them, although these ideas were not discussed during the plenary. Pupils were able to work alone during this activity if they wished, although they could also choose to work together. This contrasted with the focus on group activity during the Iron Age Life workshop (although it should be noted that this earlier group activity did not necessarily translate into group discussion).

There were other differences between the workshops, but these relate to how each workshop was tailored to the individual schools rather than being a core feature of the workshop. One example of this is how the education officer was in role as an Iron Age person, Eddix, during the visits made by School 6 and School 8. While in role he actively encouraged the pupils to develop empathy with people from the Iron Age, which suggests a link to post-processual archaeology (see Hodder 1991a, 187 [1986]). This still occurred during the visit made by School 7, but was based on their own response to the subject, rather than being actively encouraged by the education officer. Also the fact that the education officer was not in role during the visit made by School 7 meant he changed his approach. One consequence of this was that he explicitly discussed the people of the Iron Age having different values and ideas from today and made a clear contrast between Iron Age beliefs and modern beliefs. When in role the differences

were implied, but treated more as a difference between his character and the pupils rather than looking at the difference between Iron Age society and modern society as a whole.

What can be surmised is that the educational programmes at the Peat Moors centre can be deconstructed in terms of a wide range of archaeological and educational theories. The theoretical influences underpinning the two different workshops had common features, but also varied, suggesting that archaeological education draws upon different theoretical influences depending on a number of factors including the needs of the school and the intended outcomes of the workshop as well as the practical approaches employed. In particular the influence of processual archaeology was felt most strongly during the Archaeology workshop and thus the influence of the Somerset County archaeology team was particularly noticeable here. Furthermore, the education officer's choice as to whether or not to deliver the Iron Age Life workshop in role also had an impact upon which characteristics of post-processual archaeology stood out most strongly. Overall, the emphasis on hands-on activity and multi-sensory experiences were displayed strongly throughout all the workshops.

In terms of the value of the programmes for pupils it seems clear that they enjoyed themselves. Enjoyment, inspiration and creativity was the most commonly seen generic learning outcome based on the pupils GLO assessment responses (see Appendix I). Based on observations the aspects of the workshops that the pupils found most enjoyment in were those where they were actively engaged: e.g. the pupils from School 6 showed clear signs of enjoyment during the wattling and daubing activities indicated by shrieks

of laughter and cries of 'it's fun', although when questioned they claimed to enjoy the bread making activities more. In both cases they were referring to aspects on the session where they were actively involved and thus their enjoyment seems to be linked to the experiential nature of the workshops. Pupils from Schools 7 and 8 frequently referred to the excavation activity in their GLO assessment responses and were highly absorbed during this activity. Some pupils were also very keen to show the adults present what they had found. This interest in finding artefacts and a certain amount of surprise in doing so is illustrated by one pupil's GLO assessment response shown in Figure . The pupil was clearly delighted by finding artefacts. This indicates that it was not the processual emphasis on explaining the artefacts which pupils found engaging, but merely the fact of being able to find them and thus again, it was the experiential nature of the activities which pupils enjoyed.

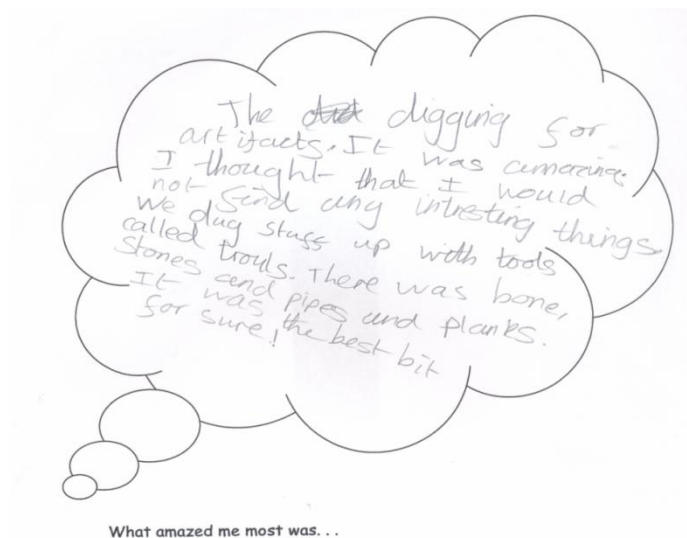


Figure 17 Pupil's GLO assessment response showing interest in excavation and surprise at finding artefacts.

The experiential emphasis of the workshops does seem to have effectively engaged pupils and initially this may be seen to indicate that the educational programme of the Peat Moors Centre did provide an effective model for teaching and learning. However, although learning should be enjoyable, enjoyment does not always equate with learning. Therefore, further analysis is necessary to understand whether or not the programmes were truly effective in this respect. In terms of helping the pupils to develop knowledge and understanding the workshops performed quite poorly based on the GLO assessment responses of the pupils. The GLO assessment responses showed that increased knowledge and understanding was marginal (see Appendix I). This is likely to be because as all the teachers indicated the pupils already had an understanding of the subject area before the visit. Therefore the information conveyed about the Iron Age was not necessarily new knowledge for the pupils. What might have made the workshops more effective in this way would have been an attempt to take a constructivist approach to determining the pupils' prior constructions following Copeland (2006, 89) and then introducing an element of cognitive dissonance as described by Davis (2005, 22) so that they would have to accommodate new knowledge.



Figure 18 GLO assessment response of a pupil from School 6 showing evidence of enjoyment of hands-on activities.

Having determined that the workshops were not particularly effective in developing knowledge it is worth considering the situation regarding skills. The generic learning outcomes assessment responses of the pupils suggests the workshops were more effective at helping pupils develop skills rather than knowledge and understanding: pupils often referred to skills based activities in their GLO assessment responses (see Figure) and these were focussed on the experiential activities the pupils engaged in. However, on closer inspection, the success of the workshop in this respect ought to be questioned. The pupils did not learn thinking skills or archaeological skills effectively through these activities. There were elements of problem solving and team working in the construction activities, but these aspects were not particularly what came out in the pupils' responses. Instead they often

referred to the activity themselves (e.g. daubing). Similarly, although many pupils mentioned or drew trowels (e.g. Figure), the value of this activity in developing understanding of archaeological methods is questionable: the simulated dig comprised a range of artefacts which would not naturally survive together jumbled in without recourse to stratigraphy or context. Pupils were not instructed in how to methodically excavate (beyond the idea that you can use trowels) or record, therefore, the skills focus of this activity was highly limited. The education officer did not fully include pupils in his plenary through active questioning to explain the nature of the artefacts discovered, instead he merely transmitted knowledge.



Figure 19 GLO assessment response of a pupil from School 8 representing the archaeological excavation.

I conclude that the workshops at the Peat Moors Centre were engaging and enjoyable for pupils, but did not provide good examples of effective teaching or learning. There were attempts to use effective teaching strategies for conveying knowledge, but they essentially failed by regurgitating information the knowledge the pupils already possessed and further strategies to extend

and develop knowledge were not employed. Similarly, there was potential to initiate learning through developing pupils' skills but although the activities were hands-on, they were not minds-on, to recount a criticism made by Hein (1998, 30-31) of other hands-on activities. This reinforces the conclusion that although the experiential learning cycle was initiated it was not effectively completed through the consideration of how what was experienced could be translated into learning.

The poor correlation between the workshops and effective teaching and learning damages any claim that the workshops at the Peat Moors Centre provided an empowering experience. Having said this, one of the highest positive impacts upon pupil creativity was recorded at the Peat Moors Centre, for School 7. This suggests that these pupils did feel empowered (based upon the idea of creativity as an effective indicator of empowerment). It should be noted that the visit made by this school was not formally connected to their curriculum studies (although it was related to learning that had previously engaged in) and perhaps this freedom from the structure of school was itself empowering. How the activities influenced the pupils after the event is unknown. It is possible (and indeed probable, see p. 143) that the pupils did learn during the workshop or were inspired to learn more, although this is unknown. It is also possible that this creativity was inspired by the setting. The other two schools who visited were relatively local and were drawn from rural communities, yet School 7 was located in urban community in another part of the country. Perhaps the unfamiliarity of the setting was responsible for the impact upon the pupils' creativity. This idea will be explored more fully in section 6.8 below.

The typological categorisation of the workshops needs to be amended following the analysis of the results. Due to the reconstructed nature of the site, the tendency of the education officer to assume a role and the generally immersive nature of the workshop it would be fairer to categorise the workshop as living history. The categorisation of the Archaeology workshop as processed based fieldwork is also disputed, since the dig was little more than a lucky dip. However, the artefact based nature of the workshop is recognised and as such working with artefacts has been added to its categorisation.

The pupils from School 7 were not bound by any intended outcomes linked to the National Curriculum but they clearly enjoyed their visit to the Peat Moors Centre and seemed to particularly enjoy the archaeological excavation. In fact, one pupil recorded the following: “I thought that I would not find any interesting things [but] there was bone, stones, pipes and planks” (see Figure). This seems to suggest that this pupil’s expectations were fairly low and that in fact the liberal scattering of artefacts in the excavation pit enhanced the activity. What is questionable is whether or not this activity really achieved the intention stated by the Peat Moors Centre to teach pupils about archaeology. The incredibly finds-rich pit which yielded so many different artefact types may have in fact misled pupils rather than educated them.

The teachers from all the schools were clearly satisfied by the workshops. The teacher in charge of the school party from School 6 had visited the Peat Moors Centre previously with another class and was very

satisfied with the programmes on offer. This finding was echoed by the teacher who organised School 7's visit as she had also visited the Peat Moors Centre with pupils on several previous occasions. She was very satisfied with the programmes on offer. She particularly liked the leisurely pace of the day and the approach of the education officer as she felt he answered the pupils' questions well. This particular teacher also liked the fact that the pupils did not have to share the centre with other pupils or members of the public during their visit as this made the visit feel more secure and therefore was less stressful for the teaching staff in charge of the pupils.

The workshops at the Peat Moors Centre drew upon influences from across the range of relevant theories. In terms of archaeological theory the workshops leaned towards processual archaeology, more than post-processual archaeology, which probably reflected the influence of the Somerset County Council Archaeology Team. However, opportunities to use processual archaeology to educate pupils' effectively about archaeological methods or to use a post-processual archaeology approach to stimulate thinking and analytical skills through the discussion of alternative interpretations were missed.

The workshops can also be deconstructed in terms of a strong bias towards experiential learning theory, at least in terms of the provision of experiences. However, the experiences offered seemed not to have been effectively tied into learning outcomes. This did not seem to adversely affect the pupils' enjoyment of the activities or the teachers' satisfaction. The fact that in one case the workshop was being used to begin a school based topic

and in another was only loosely connected to the curriculum perhaps meant that pure enjoyment was more important to the teachers than the delivery of learning outcomes. Ultimately, the educational value of the workshops is in doubt, but they may have had some partial success in empowering some pupils through stimulating their creativity.

6.6 Archaeological Education with Hampshire and Wight Trust for Maritime Archaeology

One school workshop delivered by HWTMA was observed and assessed as part of this study. In total 46 pupils from School 9 aged between seven and eight years old took part in a hulk recording workshop at Forton Lake in 2008. Although 46 pupils were observed only 33 pupils completed creativity and generic learning outcome assessments. The full data table can be found in Appendix H, but the results are presented in summary form in Table 11 below. A brief summary of the socio-economic profile of pupils at the school has also been given in Table 12.

School No.	No. of pupils	Age of pupils (in years)	Workshop name	Pupils who experienced a positive change in their creativity (%)	Fit to curriculum	Workshop category (post analysis)
9	46 (although only 33 took part in the assessments)	7-8	Hulk recording	73%	Not being fitted to curriculum work	Processed focussed fieldwork

Table 11 Summary data table of results for the schools visiting Forton Lake with HWTMA showing the percentage change in creativity, fit to the curriculum and typological category for each workshop.

School	Free school meals	Ethnic diversity	SEN	Local Deprivation	Rural/Urban	Source
9	Unknown	Low	Above average	Moderate	Urban	Marshall 2007

Table 12 Socio-economic information for the school taking part in a workshop led by HWTMA.

Background

HWTMA was established in the early 1990s as a charitable organisation with the aim of researching and recording maritime archaeology particularly in the Hampshire and Isle of Wight areas. The education service offered by HWTMA differs significantly from the education services offered by the other organisations detailed in this study since it is an addition to the core purpose of the Trust. See Figure 20 and Figure 21 for a flavour of the educational work of HWTMA.



Figure 20 Pupils recording on the foreshore © Hampshire and Wight Trust for Maritime Archaeology.



Figure 21 Pupils filling in worksheets in a school based activity © Hampshire and Wight Trust for Maritime Archaeology.

The school workshops evaluated for this study focussed on recording hulks on the foreshore at Forton Lake, Gosport, Hampshire (see Figure 22 for a picture showing the pupils listening to the introduction of the workshop). The school workshops were part of a wider community research project to investigate hulk remains. For a more detailed background see Appendix J.



Figure 22 The foreshore at Forton Lake showing the pupils listening to the introduction to the workshop.

Observations

The workshop lasted about an hour. The pupils were met by the education officers just behind the foreshore. The pupils were led to the site of the hulks which involved a short walk through a boat yard and across a road. When the pupils arrived at the hulks the HWTMA education officers explained what maritime archaeology is and encouraged the pupils to ask questions about the general subject. After this introduction the first activities were explained (see Figure 23) and pupils were then able to work through the activity independently.



Figure 23 An education officer from HWTMA explaining the activities to the pupils from School 9.

Since the workshop was prepared as a bespoke programme connected to a wider research project rather than as a standard offer for schools the overriding aim of the project was to encourage local people to be able to explore and record the hulks at Forton Lake (HWTMA 2012) and the school workshops were developed to deliver this aim rather than an explicitly curriculum linked aim. When the teacher in charge of the pupils was asked

how she was linking the trip to the curriculum she stated that as HWTMA had approached the school and the workshop was opportunistic she had not identified any curriculum links for the trip and had no expectations in terms of intended outcomes. Similarly, the pupils did not give an impression that they had much prior knowledge of the intention to visit Forton Lake and thus did not indicate that they had formed any intentions with regard to the workshop.

Results and discussion

The workshop led by the Hampshire and Wight Trust for Maritime Archaeology included characteristics associated with the full range of relevant theoretical perspectives (see Appendix I for a full data table mapping the workshop against the different characteristics associated with each theory). Based on the observations the workshop leant towards processual archaeology in terms of archaeological theory with all the defining characteristics for this theory from the framework being identified. Given the propensity for modern field archaeology practiced by archaeological units to be significantly influenced by processual archaeology (Skeates, Carman and McDavid 2012, 5) it is unsurprising to see this strong link between the educational offering of HWTMA and processual archaeology.

In practice this meant that the workshop was focussed towards teaching pupils about the archaeological process of investigation as a science based discipline, in this case through instruction in recording skills based on measuring and recording. The professional role of the archaeologist was reinforced through the use of hi-visibility vests and clipboards. The hulks themselves were valued for their importance in

understanding the wider story of industry and trade in the area. Thus, through this last point a link can be drawn between a feature of processual archaeological education and a social constructivist focus on 'big concepts' described by Copeland (2006, 89).

Despite this focus on a positivist science based approach there was room within the workshop for the post-processual features of the presentation of alternative views and the consideration of the context for interpretation. On reflection there is no reason why this approach is inconsistent with the other features of processual archaeology observed. As Trigger (1978) points out ideas within the processual framework may vary, but what is important is that they are tested and I would also argue that it is possible to derive data through scientific methods but have alternative ideas about how to interpret the data, which is what occurred during the workshops at Forton Lake. What is particularly interesting here was that the post-processual characteristics seen came from the response of the pupils rather than through the instructions of the education officers. Specifically, the pupils used empathy and thought about individuals in the past. Therefore, this observation can be deconstructed in terms of post-processual archaeology, but these features were unconsciously applied by the pupils in response to archaeological material rather than being as a direct result of the influence of education officers. Therefore it can be concluded that when pupils are encouraged to consider multiple interpretations they naturally use empathy to make sense of the options.

In terms of the relevant educational theories some characteristics associated with constructivism and socio-cultural perspectives were also

seen: pupils were able to explore the site freely and encouraged to construct their own ideas; the education officers also introduced 'big concepts' (see Copeland 2004a, 140; Copeland 2006, 90) such as change over time, encouraged group discussion (see Gredler 2005, 85, 87 [1986]) and used active questioning to scaffold the pupils constructions (see Tobin 2000, 244). A defining feature of the workshop was that it took place in an authentic context and can thus be described in terms of Lave and Wenger's (1991) situated learning theory. Additionally, pupils were given opportunities to freely explore the site, although this was structured to some extent with guidance in how to use different recording techniques. This balance of scaffolding and free exploration was a feature of the workshop: the education officers initiated discussion, and then sent the pupils off to complete different tasks, such as creating a plan view of a part of the hulk of their choosing. The education officers would then regroup the pupils to discuss the activities and the results from them.

The authentic context of the site and the opportunities for the pupils to explore can also be mapped against experiential learning theory particularly since pupils were brought together to reflect and discuss their discoveries, following the model put forward by Richards (1992). However, the process of experiential learning was left incomplete since the reflections did not lead to ideas about how to change in the future. There were clear opportunities in this workshop to close the experiential learning loop, but they were not followed up: for example, the education officers linked the site into a historical context relating to local trade and industry which had since demised. These discussions could have been made relevant to the present

by discussing the contemporary economic landscape and asking the pupils to consider what the future might like, or what archaeological remains current industries would leave behind. Through such discussions the archaeological remains of the hulks could have connected to the present rather than relegated to a disconnected past and as such the potential for archaeology to impact upon discussions around citizenship could be highlighted following Henson's (2004a, 28-29) ideas discussed previously in section 2.2 (p. 46).

Having said this there was still educational merit in the experiential nature of the workshops through the sensory rich environment which stimulated the pupils across a range of learning styles and engaged them through multiple intelligences. The pupils' GLO assessment responses indicated the experience itself and the nature of the space itself had a distinct impact upon the pupils (e.g. see Figure).

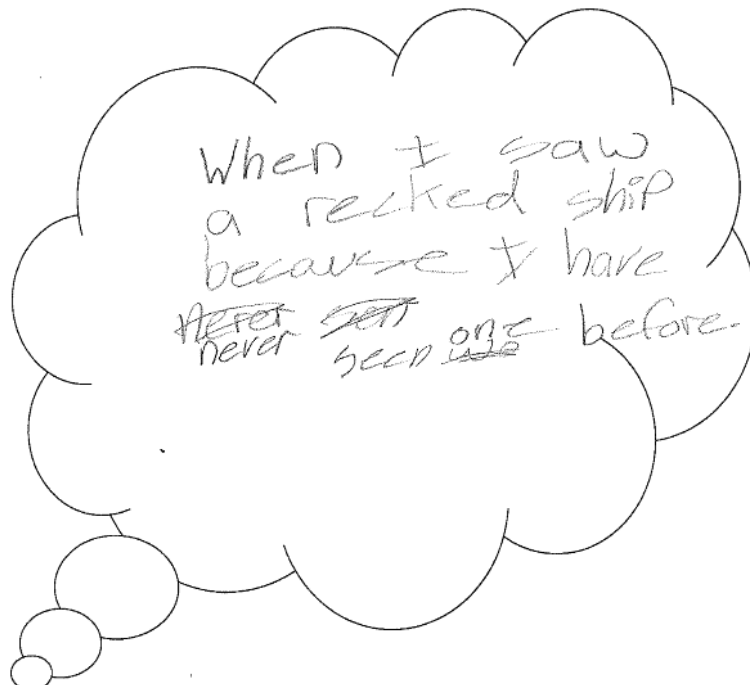


Figure 24 GLO response of a pupil from School 9 showing evidence of the impact of the environment.

Overall a progressive approach to learning dominated the workshop. Only one characteristic associated with a didactic approach was observed and this was a focus on facts and figures. Pupils were able to make their own discoveries, but the education officers seemed to want to ensure that they conveyed the received history of the site, which they did primarily through a fact laden introduction and plenary.

The pupils themselves appeared to be engaged throughout the workshop and listened carefully to the education officers. When they were asked questions by the education officers they were keen to answer and when they were sent off to work by themselves they stayed focussed on their tasks. Overall the pupils from School 9 had higher levels of special educational needs than the national average and is located in an area of moderate deprivation (see Table 12) and therefore, the attentiveness shown by these pupils is likely to have been because they were engaged with the activities rather than because they were 'well-trained' able pupils. This high level of engagement may be connected with the broad range of learning styles and intelligences catered for through the activities which enabled pupils to engage in different ways.

The GLO assessment responses of the pupils were mainly focussed on the hulks themselves suggesting that they enjoyed working in an authentic context. A small number of pupils referred to things which were peripheral to the workshop (e.g. a cat which the pupils passed on the walk from the coach to the site), which suggests that the opportunity to be outside of the confines of the classroom was something the pupils appreciated.

The workshop seemed to be reasonably effective in helping the pupils to develop knowledge and understanding with this being the most common generic learning outcome based on the pupils' GLO assessment responses (see Appendix I). The education officers did 'feed' some of this knowledge to pupils through their introduction and plenary, but the pupils were also guided towards developing much of this knowledge for themselves through personal construction based on discovery derived from their recording activities. This suggests that this combination of discovery, scaffolding and transmission worked relatively well.

The pupils GLO assessment responses for the categories pertaining to skills and activity, behaviour and progression ought to be considered jointly in this case. Throughout the workshop the pupils were engaged in skills based activities based around using simple mathematical skills to measure and record different parts of the hulks. These skills would have all been familiar to the pupils and yet few of the pupils mentioned the skills themselves directly. However, many of the pupils referred to the skills indirectly which was categorised alternatively as activity, behaviour and progression, for example see Figure below. Ultimately the workshop did not result in the pupils developing new skills, but enabled them to consolidate their existing skills by putting them in a 'real world' context. This real world approach has been favoured by authors such as Gauvain (2001, 49) and has been described within the terms of socially based activity theory (another socio-cultural perspective). Given the higher than average level of pupils with special educational needs at the school the high levels of engagement displayed throughout this workshop suggests that the workshop did provide

an effective model for teaching and learning by embedding learning in real world contexts.

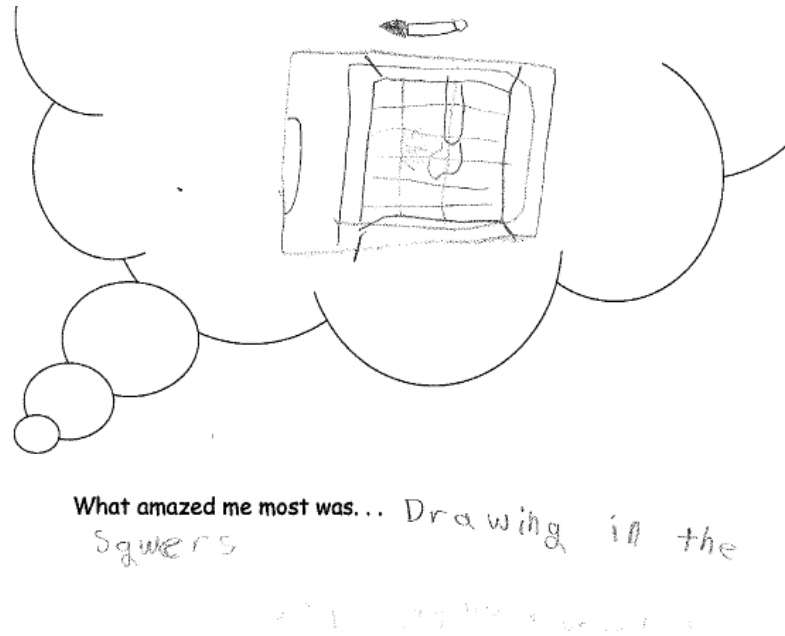


Figure 25 GLO assessment response of a pupil from School 9 showing the evidence of the consolidation of mathematical skills through the activities.

The range of approaches used indicates that the education officers struck a balance between guiding the pupils and allowing them to make discoveries for themselves, but ultimately these discoveries were scaffolded and mediated through group discussion. Thus I conclude that the workshop implemented effective teaching strategies and allowed the pupils to learn effectively.

The effectiveness of the workshop in terms of enabling pupils to learn is supported by the overall positive increase in pupils' creativity which was particularly high, with 72% of the pupils showing an increase. This suggests that the pupils were at least individually empowered, and given the socio-economic profile of these pupils there may be further significance in this

result with regards to wider issues of social justice. Having a positive empowering impact upon pupils' who experience moderate levels of deprivation is not just commendable it may stand out as a learning experience which provides future inspiration to continue to learn. However, this result merits further consideration against the other creativity results and has been discussed in section 6.8 below.

It is also worth noting that the teacher in charge was not linking the workshop to the curriculum in any way despite the focus of the activities on numeracy skills. This perceived disconnection between the pupils' formal learning and the workshop at Forton Lake is likely to have been transmitted by the teachers to the pupils and they may have felt empowered by being freed from the weight of expectation associated with their formal studies. This may be particularly apposite if many of the pupils were used to feeling the negative consequences of labelling (see Hooper-Greenhill 2007, 174) which go hand in hand with poor educational attainment and living in an area of deprivation.

It is not possible to assess the success of the workshop against the intentions and expectations of the teachers and pupils as they did not appear to have formed any prior intentions. However, the workshop was successful in delivering the overall aim of the project to encourage local people to explore and record the hulks at Forton Lake demonstrated by the fact that the pupils developed their knowledge and understanding and learnt about a feature of their local area previously unfamiliar to them.

Overall the categorisation of the workshop as process based fieldwork stands following this analysis since although characteristics from across the

theoretical spectrum could be found within the workshop there was a bias towards a process driven approach. Fieldwork is also an accurate categorisation since the pupils did take part in a fieldwork project which involved recording archaeological remains and moving from recording to interpreting their data.

The influence of processual archaeology on this workshop was clear and it is reasonable to conclude that this is a direct influence of the workshop being delivered by staff from an archaeological field unit. However, this influence did not exclude approaches consistent with post-processual archaeology. The workshop can also be deconstructed in terms of a range of educational theories which were brought together to create an effective workshop in terms of promoting learning amongst pupils. This is particularly evident in the influence on the pupils' creativity which is significant and potentially important given their socio-economic background. It is also worth considering that although the workshop provided the pupils with an engaging experience which appealed to them and allowed them to explore academic skills associated with numeracy in an authentic environment; this was not overtly followed through in terms of considering the importance of the learning in terms of the pupils' future learning.

6.7 Archaeological Education at Wiltshire Heritage Museum

Three different workshops organised by Wiltshire Heritage Museum were investigated in 2009. In total 81 pupils aged between seven and 11 years old took part in the workshops. The first workshop took place at Avebury, a world heritage site near to the Museum and was led by an artist. The second

workshop took place at the Museum but was led by the same artist who led the first workshop. The final workshop in this series was an artefact handling workshop at the Museum led by the Museum’s education officer. The results from the observations and assessments have been described below and have been summarised in Table 13. Full data tables can be found in Appendix H. A brief summary of the socio-economic profile of pupils at the school has also been given in Table 14.

School No.	No. of pupils	Age of pupils (in years)	Workshop name	Pupils who experienced a positive change in their creativity (%)	Fit to curriculum	Workshop category (post analysis)
10	30	7-9	Artist-led workshop at Avebury	73%	Loose fit to geography and history	Archaeology inspired arts education
11	25	7-11	Museum based artist-led session	52%	No curriculum link	Archaeology inspired arts education
12	31	9-11	Museum handling session: Victorians	58%	History	Content focussed working with artefacts

Table 13 Summary data table of results for the schools making visits arranged by Wiltshire Heritage Museum showing the percentage change in creativity, fit to the curriculum and typological category for each workshop.

School	Free school meals	Ethnic diversity	SEN	Local Deprivation	Rural/Urban	Source
10	Average	Low	Average	unknown	Rural	Townsend 2009
11	Above average	Low	Above average	Unknown	Rural	Kerly 2010
12	Below average	Low	Below average	Unknown	Urban	Simpson 2007

Table 14 Socio-economic information for each of the schools taking part in a workshop facilitated by Wiltshire Heritage Museum.

Background

Wiltshire Heritage Museum is an independent museum based in Devizes in Wiltshire. The Museum hosts around 4000 school visits per year both at the Museum itself and at sites across Wiltshire (A. Rushent pers comm. 15 December 2008). There are 15 different workshops for schools on offer tailored towards the needs of a range of curriculum subjects including history, literacy, art, numeracy, drama and science (Rushent 2010). Additional workshops linked to temporary exhibitions are also offered (A. Rushent pers comm. 15 December 2008). See Figure 26 and Figure for images of school visits. Most of the workshops are delivered by the Museum's education officer who has a professional background in archaeology.



Figure 26 School pupils making a foil Saxon brooch



Figure 27 Pupils in the Museum galleries © Wiltshire Heritage Museum.

The intended outcomes the Museum hoped to deliver through the workshops varied depending on the programme. The handling session was designed to support pupils curriculum based learning and help pupils to develop knowledge and understanding about various periods of history (in this case the Victorians). The outcomes of the artist led workshops were less clear, but a key driver was the delivery of an outreach programme connected an exhibition at the Museum. The teachers from School 10 felt that the workshop was relevant to the local study project the pupils were undertaking as part of their study of their geography studies. Similarly, School 11 was approached by the Museum, but had not found out about the workshop until a couple of days before it took place so the teachers had not integrated the visit formally into their curriculum studies. However, they saw the visit as valuable in terms of allowing the pupils to work outside of the classroom and with an artist. In contrast the teachers from School 12 booked the workshop specifically to complement the pupil's learning about the Victorians as part of their history studies.

The specific intentions of the pupils is unknown, but in all cases they will have had very little preparation for the visits: in the cases of Schools 10 and 11 the teacher's had had little notice and therefore the pupils will have had even less; in the case of School 12 the workshop was at the beginning of a topic with a teacher intention to provide a stimulus for that topic and thus it can be inferred that little or no pre-visit work had been undertaken. A full background can be found in Appendix J.

Observations

It was very cold and drizzly the day School 10 took part in their workshop. Despite this the pupils were clearly excited to be outside and taking part in the workshop, which was evident from their excited chatter and showed ready willingness to listen to the artist. They also expressed their enjoyment verbally when asked directly. The artist required the pupils to work in silence despite talking to them a lot. He asked them few questions and gave them very little information about the actual monument they were required to draw. However, the artist did encourage the pupils to look closely at the stones of the monument and all of the pupils spent significant time looking closely at the Avebury stones. Very few of the pupils had visited Avebury prior to the workshop despite living relatively nearby, but many of the pupils expressed an interest in returning independently at a later date.

The pupils from School 11 had already visited Avebury for an artist-led workshop as described for School 10 over a week earlier. Their workshop fell into two distinct parts: the first involved refining the drawings the pupils had

previously done at Avebury and the second involved going into the Museum galleries and drawing artefacts from the Museum collections. The pupils were directed towards the Neolithic galleries but were allowed to choose any of the artefacts on display throughout the Museum to draw. Most of the pupils chose artefacts from the prehistoric galleries but two pupils chose Roman artefacts. The teacher explained that the pupils were all working on a project of their own choosing back in the classroom and that the pupils who had chosen to draw Roman artefacts were studying the Romans for their project. The pupils appeared to enjoy the workshop and some of them said their confidence in their drawing abilities had improved due to taking part in the workshop. Many of the pupils had not visited the Museum before but said that they intended to visit again after the workshop.

The workshop undertaken by School 12 began with an introduction from the education officer. She began by introducing herself and asking the pupils what they already knew about the Victorians. She then explained what was going to happen during the workshop. The workshop was delivered in a fluid manner as an illustrated discussion about Victorian life with the artefacts providing the illustrations. The education officer punctuated the discussion with frequent opportunities to handle and talk about the objects; during these periods she stood back and let the pupils handle the artefacts without intervention.

The pupils were highly focussed throughout the workshop and asked lots of relevant questions. When they had the opportunity to handle artefacts the pupils shared well and handled the objects carefully. Many of the pupils used the artefacts for spontaneous and self-directed role-play. The teacher

commented that the pupils seemed to be better behaved than usual: they said that the pupils were usually very 'chatty' and unfocussed in class, but that during the workshop at the Museum they seemed to be much more focussed and attentive. The teacher stated that the class included a large proportion of kinaesthetic learners.

Results and discussion

The results collected from the workshops organised by and delivered at Wiltshire Heritage Museum offer some interesting insights into the nature of archaeological education, particularly in terms of its definition and consideration of this is a key aspect of the analysis of this case. This is because the programme offered by Wiltshire Heritage Museum was much more diverse than those offered by the other organisations discussed in this chapter. The workshop which School 10 occurred at a site away from the Museum and was delivered by an artist working as a freelancer in connection with a Museum exhibition, the workshop School 11 took part in was delivered at the Museum but by the same artist who delivered the workshop for School 10 and the final workshop undertaken by School 12 was delivered by Museum staff following a more traditional handling activity format. The artist's role in delivery has focussed the question of what defines archaeological education and as such the results from School 10 and School 11 provide an interesting contrast with those from School 12 and in fact with all the other results from the other cases.

The observations from School 10 indicated that the approach employed by the artist did not include any features which could be mapped

towards either of the archaeological theories which have been observed during the other visits. The workshop made use of archaeological material and archaeological material was referred to by the pupils' themselves through their GLO assessment responses, but the artist who led the workshop was more focussed on instructing the pupils' in artistic techniques than helping to develop archaeological skills or knowledge. This raises the question the question of whether this workshop can be considered to be archaeological education merely because of its setting (an archaeological site or museum). On consideration I suggest that the lack of characteristics associated with archaeological theories makes it difficult to consider this workshop to be archaeological education, instead it has been re-categorised as education inspired by archaeology.

Similar considerations apply to the workshop which School 11 took part in, since it was led by the same artist who led the workshop for School 10. However, there was a little more focus on the archaeological material during the workshop as the pupils were able to read the interpretation panels in the galleries provided by Wiltshire Heritage Museum (see Figure). However, the pupils were not specifically directed towards the interpretation by the artist and therefore, this workshop has also been re-categorised as archaeology inspired arts education.



Figure 28 GLO assessment response of a pupil from School 11 showing that although the educator did not discuss chronology the presence of museum interpretation still had an impact.

What is also interesting about the two workshops which Schools 10 and 11 took part in is how few characteristics associated with constructivism and socio-cultural perspectives were seen. There was however, a better match between the activities and experiential learning theory than to the other archaeology based workshops, in so much that the experiential learning cycle was closed by encouraging the pupils to develop the skills they had acquired. The artist encouraged the pupils to think about how to develop their drawing abilities based on what had been learnt in the workshops and encouraged the pupils to exhibit their work. This was reinforced by many of the pupils who said they intended to continue to use the technique and do more drawing, and by the teachers who intended to create displays of the pupils' work. The impact on future action was limited to continuation, but coupled with the fact that many pupils expressed increased confidence in their drawing abilities does indicate that the workshops helped the pupils to develop and that there was a tangible impact on future action which starkly

contrasts with the other archaeological workshops which did not overtly address integration of skills and knowledge and progression.

Pupils from Schools 10 and 11 were encouraged to use different learning styles, but these were slightly more limited than for most of the other schools observed and discussed during this chapter and the range of intelligences engaged appears to be significantly narrower. During the discussion of the results for the other schools the broad match across the spectrum of learning styles and multiple intelligences was attributed to the sensory rich environments the activities took place in. However, Avebury and Wiltshire Heritage Museum are also rich sensory environments, yet the pupils did not engage as widely in terms of learning styles or across the spectrum of intelligences. This suggests that actually it was not just the sensory rich environment which saw pupils engaging through multiple intelligences and with varied learning styles, but a feature of the flexibility of the archaeological method itself.

At face value the results from Schools 10 and 11 seem to offer little insight for a study into archaeological education due to the fact they are outside the scope of archaeological education, but actually the contrast between these results and those for the other schools helps to focus the definition of and the unique characteristics of archaeological education. There are three specific considerations which come from the comparison of the workshops undertaken by Schools 10 and 11 and all the other schools. First, it has caused me to refine the definition of archaeological education as something which enshrines archaeological ideas. Second, the workshops

undertaken by Schools 10 and 11 showed a narrower range of characteristics which can be mapped against progressive educational theories and in particular what is suggested by these results is that a broad fit across the spectrum of learning styles and multiple intelligences is not merely a feature of a sensory rich environment but can be directly related to the approaches of archaeological educators. Third, the failure to complete the experiential learning cycle may be, as Richards (1992) points out, associated with outdoor learning, but the workshops undertaken by Schools 10 and 11 show that it is possible. This ought to encourage archaeological educators to think carefully about how they might facilitate pupils to take their learning a step further. The emphasis on skills in the arts workshops might suggest that a stronger focus on archaeological skills might prove useful.

Having considered theoretical basis for the workshops undertaken by Schools 10 and 11 together it is now pertinent to consider the theoretical framework for the workshop undertaken by School 12. This provided a much more typical example of archaeological education, as features mapped towards characteristics associated with both processual and post-processual archaeology were observed (see Appendix H). Specifically, the observations revealed a more significant correlation to post-processual approaches than processual approaches. Notably, as the artefacts were passed around their relationship to individuals from the past were considered, thus developing ideas associated with empathy (see Hodder 1991a, 187 [1986]) and context (see Wylie 1992, 55). For example, a Victorian moustache cup was described and explained by discussing the facial hair fashion of gentlemen of the period and photographs of men sporting moustaches were shown. Also

the value systems of the Victorians and in particular their attitudes to child labour were contrasted with those of modern society. The discussion of child labour drew together considerations of value systems and the role of the individual through an empathetic discussion of what the lives of poor Victorian children must have been like.

Educationally, observations from this workshop indicated the presence of some characteristics associated with a constructivist approach. Specifically, the education officer asked the pupils what they already knew about the subject to ascertain their prior constructions and created opportunities for cognitive dissonance as advocated by Copeland (2004a, 140; 2006, 90). This was achieved by giving the pupils artefacts and asking them to think about what they were used for or how they were used and then actively demonstrating the 'correct' usage of the artefacts, which the pupils were then able to absorb before moving on. The education officer also used the technique of active questioning which is associated with social constructivism (e.g. Tobin 2000, 244). Perhaps most crucially for the discussion about archaeological education this workshop was not situated in an authentic context, instead the artefacts as part of the Museum's learning collection had been separated from their natural context and this indicates that although many of the other workshops made use of an authentic context this is not necessarily a defining characteristic of archaeological education.

Despite the lack of authentic context the workshop did enable pupils to engage in an experience which they were given opportunities to reflect on, which corresponds to the initial phase of experiential learning (Richards 1992). However, this cycle was not completed as the consideration of how

these experiences could impact upon the pupils' future actions and thoughts was absent, although could have been integrated in the discussion and comparison of Victorian and modern values.

The experiential element of the workshop was provided by the interaction with artefacts with the pupils exploring these visually, through language, through touch, and even through smell. Thus the workshop was rich in sensory stimulation and as such catered for pupils with a range of learning styles and engaged them across multiple intelligences. It is also worth reiterating that the teacher in charge commented that the pupils were more focussed than they normally were in class and she herself said that was because there was a high proportion of 'kinaesthetic learners' in the class that were being accommodated through the workshop.

What was completely absent from this workshop was a correlation between the approaches seen and a didactic approach. Despite the fact the workshop had been booked by the school in connection with a Victorian topic and therefore, the visit was curriculum linked, the education officer did not seem to feel the pressure of having to convey a series of set facts and figures. Instead she employed a fluid approach to revealing information about the Victorian period which was based on using the artefacts with a combination of active questioning as identified by Tobin (2000, 244) and creating cognitive dissonance following ideas similar to those discussed by Davis (2005, 22) to enable the pupils to develop ideas about the topic.

In terms of the pupils' enjoyment of the workshops it can be said that the pupils from Schools 10 and 11 seemed to enjoy the activities and pupils from both groups expressed an interest in returning to both Avebury and

Wiltshire Heritage Museum. However, beyond this, archaeology itself did not seem to be of particular interest to the pupils from School 10. This was not true of the pupils from School 11 who frequently referred to the archaeological material on display at the Museum in their GLO assessment responses and as figure 28 shows they clearly read the interpretation panels. Two pupils in particular were very excited about the possibility of drawing in the Roman gallery, since they were undertaking an individual project at school on the Romans. Pupils from both these schools however indicated their confidence in their drawing ability had increased and the GLO assessment responses of the pupils from School 10 reinforced this focus on drawing skills (see Figure below). What this suggests is that being in an archaeologically rich environment alone is not enough by itself to create archaeologically linked enjoyment for pupils, but that some kind of intervention (by an educator or written interpretation) focussed on archaeology is necessary to stimulate enjoyment in the subject.



Figure 29 GLO assessment response of a pupil from School 10 showing their representation of the drawing activity.

Given this conclusion it is perhaps not surprising that the close focus on artefacts directed by the education officer (and the propensity for the pupils

from School 12 to favour kinaesthetic learning) proved to be enjoyable for the pupils taking part in the last workshop. This enjoyment was indicated by the pupils' focussed and relevant chatter during the handling activities and the abundant references to artefacts in the generic learning outcome assessment responses (e.g. see Figure 30). Thus, the typological categorisation of the workshop undertaken by School 12 remains as content focussed working with artefacts.



Figure 30 GLO assessment response of a pupil from School 12 showing an evidence of an interest in artefacts.

In terms of how archaeological education is of value to pupils in terms of providing effective methods of teaching and learning and empowerment it is not pertinent to consider the results from School 10 and School 11 since these fall outside the scope of the definition of archaeological education. Therefore, this analysis will be confined to School 12.

The workshop delivered by the Museum's education officer seems to have been particularly successful in terms of enabling the pupils to develop knowledge and understanding, with 73% of the pupils GLO assessment responses being categorised against knowledge and understanding. I

suggest that the combination of active questioning and cognitive dissonance and assimilation used was highly effective in enabling pupils to construct insights about the past (see Appendix I). However, this workshop was not so successful in developing pupils' skills, but since the teacher had specifically booked the workshop to inspire the pupils' studies about the Victorian period, the focus of the workshop on helping the pupils to learn about the past rather than develop skills was entirely appropriate. Further to that, although the development of historical skills is not easily identified through their GLO assessment responses I argue that in using artefacts to developing understanding of the past that actually pupils were developing important historical skills through this workshop.

The positive impact upon the creativity of the pupils from School 12 was relatively low compared with some of the other results recorded in this study and this suggests this workshop was not particularly effective in empowering the pupils. However having said this teacher from School 12 whose comment mentioned previously which indicated the kinaesthetic learners in the class were more engaged than usual may be suggestive of a positive educational experience and such experiences can have a personally empowering effect for some pupils.

In terms of the general understanding and definition of archaeological education the results from Wiltshire Heritage Museum are very interesting. Based upon these observations it is difficult to continue to justify **any** reference to archaeology in educational terms as archaeological education if there is no correlation with archaeological ideas. Instead, it is relevant to identify a difference between archaeological education and archaeology

inspired education. However, within this redefinition exists the potential to recognise that pupils' themselves may explore archaeological material presented to them more fully themselves if interpretation is available.

In particular the results from School 10 and School 11 have shown that it is possible in practice to complete the experiential learning circle in a 'learning outside of the classroom' context by taking time to extend reflections into consideration for future action. This could be applied to archaeological education, although it seems not to have been in any of the examples documented in this chapter.

The workshops delivered to School 10 and 11 seemed to show less flexibility in terms of the learning styles and intelligences targeted despite the rich and stimulating environments the workshops took place in. This result is in contrast to those seen for the other schools discussed in this chapter which suggests the environment alone is not enough to engage pupils across their learning styles or through different intelligences. Instead, what is suggested by these results is that it is archaeological educators themselves that target pupils with varying learning styles and across a range of intelligences. Whether this is due to a common feature of the styles they use or the material they present or the approaches which are consistent with archaeological theories has been considered in section 6.8 below.

Another interesting feature of the workshop undertaken by School 12 was the absence of a didactic approach taken by the Wiltshire Heritage Museum education officer. Alternatively she successfully employed a combination of active questioning and cognitive dissonance (e.g. see Figure

31) which successfully built pupils' knowledge, but also helped them to grasp a key historical skill of interpreting evidence. This suggests the approach used here provided an effective model for teaching and learning. However, it is doubtful whether this provided pupils with a particularly empowering experience based on the low creativity result.

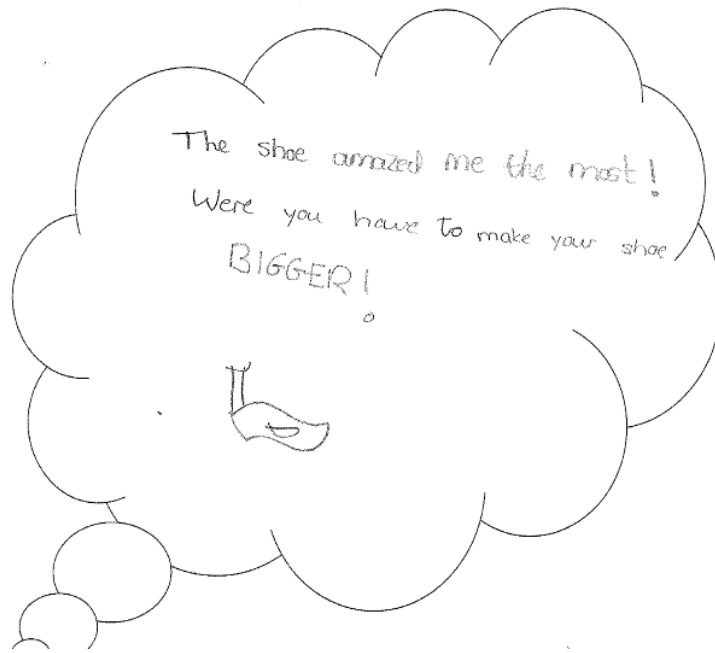


Figure 31 A GLO assessment response of a pupil from School 12 showing surprise at using a shoe stretcher.

Overall what these results provide are some interesting contrasts in terms of the wider discussion of archaeological education which will be considered more fully in conjunction with the results from the other case studies in the following section of this chapter.

6.8 Cross-case analysis

In the previous sections I presented my findings from each of the five case studies. This involved some discussion, but this is extended and developed

in this section as the findings are examined in relation to each other. By comparing and contrasting the results across the cases, trends have been drawn out and these are analysed against the underlying theories. Also, as noted in the previous section the results from Schools 10 and 11 stand apart from the results from all the other schools in that they have been re-categorised as arts education rather than archaeological education and their separation from the other schools is evident in how the results correspond quite differently to the framework of theories used for the analysis. This makes Wiltshire Heritage Museum an unusual case study in the diversity of its offer compared with the other case studies presented in this thesis. This has allowed the results from Schools 1-9 and 12 to be compared with those from Schools 10 and 11 and as such this comparison helps to clarify understanding of archaeological education in general terms.

Essentially, the purpose of this section is to examine the results in order to make generalisations about archaeological education with specific reference to the research questions and their associated objectives. Therefore, specifically I have discussed the relevance of the framework of theories to the different practical approaches and also considered the possible routes of their influence, both in general terms and in terms of specific typological categories. I also consider what the results indicate about the value of archaeological education for pupils within the context of the theoretical framework.

This study is relatively small in scale having spanned only five organisations and involved only 325 pupils, but the richness of the qualitative data means that the data tables are quite long. Therefore the data presented

here is in the form of the recombined tables which are focussed towards looking at particular aspects (e.g. the different typologies). Full data tables for each school can be found in Appendix H and a data table presenting summary data from all the case studies together can be found in Appendix I.

Theories

Characteristics associated with the full range of relevant theories were identified during the course of the observations and analysis of all the case studies (Schools 10 and 11 being excluded for the purposes of this discussion) as reported in the case study descriptions above. However, different programmes and different approaches did suggest that different theoretical profiles were applied. Notably, there were three theories whose characteristics were not represented across all the school workshops and these were constructivism, socio-cultural theories and didactic approaches (see Table 15). This is particularly worthy of discussion given the assertions of authors such as Davis (2005) and Copeland (2004a; 2004b; 2006) who have made links between constructivism, social constructivism and archaeological education. Of course this is not to say that those links do not exist and indeed characteristics associated with each of these theories were observed in many cases, but they do not appear to contribute to the generalised picture of archaeological education drawn from the case studies investigated in this study.

Having said this, on closer consideration, the use active questioning (identified under the umbrella of a socio-cultural perspective) (e.g. see Tobin 2000, 244) was identified in all but one of the workshops. The only instance

where the technique was not used was during the workshop undertaken by School 4. The same workshop was also delivered to Schools 2 and 3 and yet the technique was used during these workshops. The key difference was that a different member of staff delivered the workshop to School 4 and her personal style was more traditional. This indicates that at least in part the individual style of educators and their background can influence how archaeological education can be deconstructed theoretically.

Where characteristics associated with constructivism and socio-cultural approaches were observed they were often linked to characteristics from other theories. For example, at Bede's World the free choice exploration the pupils enjoyed during the farm tour (mapped against constructivism) was also associated with aspects of experiential learning theory. Also during the workshop which School 12 took part in the use of active questioning and opportunities to explore cognitive dissonance and cognitive assimilation was associated an emphasis on artefacts. This suggests that in practice different characteristics of different theories work together.

Theory	Characteristic/feature	Common feature
Processual archaeology	A focus on skills.	No
	An emphasis on data	Yes
	An emphasis on the scientific method	No
	An emphasis on the professional status of the archaeologist.	No
Post-processual archaeology	A focus on agency and the role of the individual in the past	Yes
	The presentation of alternative interpretations	No
	Opportunities to use empathy to develop ideas about the past	Yes
	Consideration of context for interpretation	No
	Awareness of value systems	No
Constructivism	Allowing pupils to construct ideas through personal discovery.	No
	Cognitive dissonance and assimilation	No
	Early opportunities to identify pupils' prior constructions	No
	Free choice environment	No
Social Constructivism and socio-cultural perspectives	Group discussion	No
	Use of active questioning and role-play	No
	A problem-solving approach as opposed to discovery learning	No
	A focus on big concepts such as change or context.	No
	Evaluating pupils' constructions through experimentation.	No
	Using language to provoke questions and further discussion	No
	Site activities and programmes in an authentic context.	No
ELT	Experience immediately followed by an opportunity to reflect.	Yes
	Experiences have an impact upon the pupils' future actions/ideas.	No
Learning Styles Theory	Visual exploration	Yes
	Auditory information	Yes
	Tactile and physical exploration	Yes
	Opportunities for experience	Yes
	Opportunities for reflection	Yes
	Problem solving activities	No
	Experimentation	No
Multiple Intelligence Theory	Using words and language	Yes
	Using logic and numbers	Yes
	Using music, sound and rhythm	No
	Physical movement	Yes
	Using images and space	Yes
	Considering other peoples' feelings and working with others	No
	Working alone and considering one's own response	No
	Using the natural environment and working with animals.	No
Didactic approaches	Rote learning.	No
	Lecture style	No
	Focus on facts and figures	No
	Little room for pupil input	No
	A narrative structure.	No

Table 15 showing which characteristics and theories were common across all the schools observed. Theories not common have been highlighted in bold.

Overall, the observations indicated that archaeological education is broadly progressive in terms of the underlying educational theories (although this may have been predicated by the fact that the framework for analysis is also broadly progressive). Having said this, during many of the workshops an emphasis on facts and figures (a characteristic of a didactic approach) was observed. This is perhaps an overhang of the traditional pupil/educator relationship which is inherently associated with working with school pupils: specifically, there is an expectation that the archaeological educator is an expert who has all the answers and they are therefore cast into this role. This may also be associated with the intended outcomes of the workshops, which were almost universally connected to knowledge based aspects of the history curriculum rather than skills based outcomes. Some direct transmission of facts and figures may have been in response to a perception that this would successfully transmit the 'correct' knowledge even if the other more progressive approaches to the construction of knowledge failed. However, in reality this strategy was not particularly successful: for example the workshops offered by the Peat Moors Centre can be contrasted with the workshop undertaken by School 12. The pupils' GLO assessment responses indicated that the workshops at the Peat Moors Centre were not particularly successful in developing pupils' knowledge of the Iron Age, however, the results from School 12 show that the combination of a constructivist approach based on cognitive dissonance and assimilation and a socio-cultural approach of active questioning was highly successful in developing pupils' knowledge.

The contrast between the workshops undertaken by Schools 10 and 11 and the rest of the workshops was particularly clear in terms of the absence of characteristics associated with processual and post-processual archaeology. In fact based on these results, and as stated above in 6.7, I have concluded that the presence characteristics associated with these theories are a defining feature of archaeological education. Different balances of the characteristics associated with these theories were seen across the workshops, but one characteristic was common to all (excluding Schools 10 and 11) and that was an emphasis on artefacts. This indicates that in many ways archaeological education is defined by an artefact based approach, but one that uses artefacts in a descriptive and explicatory manner as associated with processual archaeology (e.g. see Hodder 1991a, 8 [1986]). In several cases this characteristic was seen connected the social constructivist approach of focussing on big concepts as described by Copeland (2004a, 140; 2006, 90). An example of this was observed during the site tour at Corfe Castle where the education officer encouraged the pupils to see the castle in its landscape and think about settlement. Another example was seen at Bede's World when the education officer encouraged the pupils to consider the practice of grave goods in terms of gender differences and religion. One other common, although not universal, approach seen was the location of many of the workshops in an authentic context.

The common characteristics associated with post-processual archaeology were a focus on agency and the use of empathy (see Table 15 above). These two ideas can be viewed as linked in terms of the practical

approach to archaeological education and were often manifested through a storytelling approach. It was stated previously that within Davis' (2005, 26) interpretation of the Piagetian framework primary school aged pupils were not sufficiently cognitively developed to be able to understand historical thinking. However, perhaps the use empathy helps pupils to bridge this gap in their development by enabling them to conceptualise the past in terms of their own frame of reference, thus making the abstract concrete. Several examples of how pupils used empathy were evident through the observations, for example this was particularly clear during the workshops at Corfe Castle when pupils translated their experiences of wearing heavy costumes into an empathy with people from medieval England. This also relates to the second characteristic of post-processual archaeology seen across the cases which was a focus on the role of the individual. In many cases the past was explored through real characters such as King John at Corfe Castle or hypothetical characters such as the Saxon boy and girl at Bede's World.

Interestingly, during the workshop led by HWTMA at Forton Lake, pupils' responses and interactions were mapped against the characteristic, 'empathy', but this approach was not specifically encouraged or facilitated by the education officers. Instead, using empathy can be seen here as a natural response that children have when presented with archaeological material.

It is also interesting that amongst the results described in this chapter the closest ties to processual archaeology can be seen in the programmes where trained archaeologists were involved closely in the development of the

programmes or in their delivery. This is an important finding, since in Chapter 4 I argued that one of the most compelling arguments for educational work is the dissemination of archaeological messages relating to stewardship and conservation and that essentially this is underpinned by a processual approach (e.g. Jeppson 2012). However where educational work is delegated to non-archaeologists the focus on a processual view of archaeology becomes diluted.

Another common feature across all the archaeological education workshops was the opportunity for pupils to have an experience and to reflect on their experiences. However, what was also common was the lack of follow through in terms of experiential learning. Pupils were not encouraged to take the next step and think about how their learning might have further impact. As Richards (1992) noted this has been recognised as a common issue with outward bound education programmes and the resolution to this is that pupils will in some form and at some point take their learning forward independently. However, this seems a very unsatisfactory solution, especially as there is a potential for the final stage of experiential learning to be enacted, as demonstrated by the results from Schools 10 and 11.

The artist who led the workshops for Schools 10 and 11 completed the ELT cycle by encouraging the pupils to develop their skills further and exhibit their work and indeed many of the pupils themselves discussed the next steps they would take. It is perhaps immediately more difficult to see how knowledge of the past or archaeological skills such as excavation will affect pupils' future actions, but this can be attributed to the idea that the past

is static, which as I have demonstrated is contested within archaeology (e.g. Smith 2006, 305). If, as I have argued, archaeology is actually about the construction of the past in the present the potential for archaeological education to influence pupils' future actions becomes clear: what archaeological educators should then do is encourage pupils to ask questions of current society, their own behaviour, and to think about how to act in the future. I have made suggestions of how this could have been achieved during my considerations of various workshops in the relevant sections above. In particular, the close link between archaeological education and the use of empathy to understand the past could open the door to this sort of debate.

Another common feature of the archaeological education programmes observed seems to have been a close correlation across the spectrum of learning styles and multiple intelligences. Initially, when considering each of the cases this correlation was attributed to the sensory rich environments which the workshops all took place in. However, the comparison with the artist led workshops undertaken by Schools 10 and 11 provided further insight here. These workshops also took place in sensory rich environments but the observations showed pupils engaging in a much narrower range of behaviours associated with the eight different intelligences (as defined by Gardner 1993a). This suggests that in fact there is something about the way the workshops were delivered that influenced these results rather than just the context for delivery. The key difference seems to have been that the artist led workshops were very focussed on visual skills associated with drawing, whereas the archaeological educators encouraged pupils to engage

with the archaeological materials and the historic environment using a range of senses (e.g. touching and smelling artefacts during School 12 workshop or experiencing the dark and cold of the sunken featured building at Bede's World). This can be seen as mirroring the multi-disciplinary approach that archaeologists themselves employ to understand archaeological material. Thus, as Stone (2004, 1; see p. 95) illustrates, archaeology is tangible and that appeals to pupils across different intelligences and engages them through different learning styles.

In the paragraphs above I have deconstructed the archaeological education programmes against the range of relevant theories. In some cases ideas from the different theories discussed will have influenced the design of the workshops because those ideas have been translated through wider developments in the world of archaeology and education. In other cases, for example, where pupils naturally used empathy to make sense of archaeological material, this is not due to the influence of post-processual thought on pupils, it is merely a way of describing and understanding what was observed. Thus, understanding the theoretical basis for archaeological education is not necessarily about unpicking the theoretical influences, it is also about identifying how it can be described theoretically.

Furthermore, it should be noted, that despite my premise that archaeological theories define archaeological education, none of the respondents to the questionnaire sent out to gather information on archaeological education (to which all of the case study organisations responded) pointed to archaeological theories as influences on the design of

their programmes (see Appendix E). Instead, the influence of archaeological theories is always unconscious and mediated through a general understanding of archaeological knowledge and practice. I argue that this is a problem for archaeologists who take a particular stance on why archaeological education should be practiced. Specifically, for those who wish to promote stewardship and conservation, an openly processual approach would be an advantage and for those who seek to promote social justice and embrace multiple perspectives a post-processual stance ought to be critically adopted. The literature suggests that the benefits of engagement are closely tied to these arguments (see Chapter 2 and 4), but these ideas seem to have had little real impact in terms of how the programmes observed here were developed.

Archaeological educators seem to be slightly more aware of how they develop their programmes in educational terms (see Appendix E) and have pointed to constructivism, learning styles theory and a general understanding of teaching and learning as ideas which underpin their delivery.

What these results show is that archaeological education is theoretically diverse. It can be deconstructed in terms of a variety of theories which have influenced the discipline through its parent discipline of archaeology and also through the influence of education. Many archaeological educators largely draw upon these theories unconsciously, picking and choosing practical approaches which suit their particular context and personal style. What is also true is that the web of theories and their influence is complex and that there is no-one single dominant theory. In fact,

seemingly opposing theories can be seen to be working together in the same workshop.

Typologies

Despite the different case studies being chosen because they represented different aspects of the typological categories ultimately only two workshops were determined to be process driven, which suggests that this is a less common approach to take. I suggest that this can be explained by the fact that many educators try to target their workshops towards the content based elements of the history curriculum (as demonstrated by the knowledge focussed intended outcomes) and also perhaps reflects an unspoken aim of archaeological educators to attract teachers who are often intimidated by archaeology (Stone pers comm. 27th November 2007) and feel less confident in teaching historical skills (Henson, Bodley and Heyworth 2004, 35).

Additionally, despite an effort to choose programmes which represented the spread of approaches in reality three practical approaches were dominant: working with artefacts, living history and tours (see Appendix I). There were some common features across those typologies which are discussed below. However, there is a caveat to this in that several of the workshops crossed more than one category, for example, the workshop undertaken by School 5 was categorised as both a site tour and living history thereby crossing two categories. Thus although an attempt has been made to analyse the different typologies in terms of their underpinning theories this analysis is somewhat compromised by the multi-layered nature of the approaches in practice.

Working with artefacts

Theory	Characteristic/feature	School 2	School 3	School 4	School 12
Processual archaeology	An emphasis on data	O; G	O; G	O; G	O; G
Post-processual archaeology	A focus on agency and the role of the individual in the past	G	G	G	O; G
	Opportunities to use empathy to develop ideas about the past	O	G	G	O
Constructivism	Opportunities to create cognitive dissonance and achieve cognitive equilibrium.	G	G	G	O
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	O; G	O; G	O; G	O
Learning Styles Theory	Visual exploration	O	O; G	O; G	O
	Auditory information	O; G	O	O	O
	Tactile and physical exploration	O	O	O	O
	Opportunities for experience	O	O	O; G	O
	Opportunities for reflection	O	O	O	O
	Problem solving activities	O	O	O	O
Multiple Intelligence Theory	Activities and interpretation which encourage pupils to engage in range of different 'behaviours' to explore ideas including:				
	Using words and language	O	O; G	O; G	O
	Using logic and numbers	O	O	O	O
	Physical movement	O	O	O	O
	Using images and space	O	O	O; G	O
	Considering other peoples' feelings and working with others	O; G	O; G	O	O
Typological category		Process driven working with artefacts	Content focussed working with artefacts and exhibition	Content focussed working with artefacts and exhibition	Content focussed working with artefacts

Table 16 Showing the common characteristics associated with the range of theories for workshops defined typologically as working with artefacts. 'O' indicates the characteristic was observed and 'G' indicates it was demonstrated through the pupils' GLO assessments.

Table 16 above shows which characteristics were associated with the school visits where working with artefacts was a common typological category. Although a certain emphasis on artefacts was seen in all the workshops this was an overriding feature of the workshops undertaken by Schools 2, 3, 4 and 12. In terms of the theoretical basis for this category of workshop there is an obvious link to the processual characteristic of working with artefacts (see Hodder 1991a, 8 [1986]). There was also a link to the constructivist approach of using cognitive dissonance and equilibrium (see Davis 2005, 22), such as described for School 12 (see 6.5 above). However, although the educators did not universally create opportunities for group discussion they did create opportunities for pupils to work with others and who were often observed doing so. This suggests that in order to make sense of unusual and unfamiliar artefacts pupils naturally favour an approach where they can work together. Therefore, although no formal universal characteristics were defined as being related to a socio-cultural perspective in fact the pupils tended to take the initiative themselves and engage in social learning.

Living history

The workshops undertaken by Schools 5, 6, 7 and 8 were defined as living history (see Table 17). In addition to the common features shown across all the cases a number of others seem to be specific to this typological category.

Theory	Characteristic/ feature	School 5	School 6	School7	School 8
Processual archaeology	An emphasis on data	O; G	O; G	O; G	O; G
Post-processual archaeology	A focus on agency and the role of the individual	O; G	O	G	O
	Opportunities to use empathy to develop ideas about the past	O; G	O	G	O
Socio-cultural approaches	Use of active questioning and role-play	O	O	O	O
	A problem-solving approach	O	O	O	O
	Authentic context.	O	O; G	O	O
ELT	Experience followed by an opportunity to reflect.	O	O	O	O
Learning Styles Theory	Visual exploration	O	O; G	O	O
	Auditory information	O	O	O	O
	Tactile and physical exploration	O	O	O; G	O
	Opportunities for experience	O	O; G	O; G	O; G
	Opportunities for reflection	O	O	O	O
	Problem solving activities	O	O	O	O
Multiple Intelligence Theory	Words and language	O	O	O	O
	Logic and numbers	O	O	O	O
	Physical movement	O	O	O	O
	Using images and space	O	O	O	O
	Using the natural environment and working with animals.	O; G	O	O; G	O; G
Didactic approaches	Focus on facts and figures	G	O	O; G	O
Typological category		Content focussed site tour and living history	Content focussed living history	Content focussed living history	Content focussed living history

Table 17 Showing the common characteristics associated with the range of theories for workshops defined typologically as Living History. 'O' indicates the characteristic was observed and 'G' indicates it was demonstrated through the pupils' GLO assessments.

In particular socio-cultural perspectives were well represented in these workshops. This body of theories was characterised by the use of active questioning and role-play initiated by the educators as well as an emphasis

on problem solving over discovery learning and the situation of the workshop in an authentic context. This last point is worth some consideration, because in both the cases, Bede's World and the Peat Moors Centre, where this category of workshop was defined, the authentic context was actually based on reconstructed buildings. However, these buildings were faithfully reconstructed from the excavation data of real buildings. Also common to these workshops was a broad fit to multiple intelligence theory which included a fit to naturalistic intelligence and may be related to the outdoor elements of these workshops.

Tours

Workshops undertaken by Schools 1 and 5 were categorised as 'tours' (see Table 18). In both instances the educators used the constructivist approach of seeking to establish the pupils' prior constructions. Both these workshops were also mapped against naturalistic intelligence due to the outdoor nature of the activities. However, apart from this these tours had little in common. In fact in many ways the approaches taken during these two tours can be contrasted. The tour at Corfe Castle was more rigid in its structure and format and followed a more didactic approach whereas the tour at Bede's World enabled the pupils to explore freely and created opportunities for cognitive dissonance and equilibrium. This shows that the same type of activity in practical terms may take different theoretical approaches and thus the various typological categories for archaeological education cannot

always be used reliably to predict how the activities can be deconstructed theoretically.

Theory	Characteristic/feature	School 1	School 5
Processual archaeology	An emphasis on data	O; G	O; G
Post-processual archaeology	A focus on agency and the role of the individual in the past	O; G	O; G
	Opportunities to use empathy to develop ideas about the past	O	O; G
Constructivism	Opportunities to create cognitive dissonance and achieve cognitive equilibrium.		O; G
	Early opportunities to identify pupils' prior constructions	O	O
Social constructivism and Socio-cultural approaches	Use of active questioning and role-play initiated by the archaeological educator	O	O
	A focus on big concepts such as change or context.	O	O; G
	Using language to provoke questions and further discussion	G	O
	Site activities and programmes in an authentic context.	O	O
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	G	O
Learning Styles Theory	Visual exploration	O	O
	Auditory information	O	O
	Tactile and physical exploration	O	O
	Opportunities for experience	O	O
	Opportunities for reflection	O	O
Multiple Intelligence Theory	Using words and language	O	O
	Using logic and numbers	O	O
	Physical movement	O	O
	Using images and space	O	O
	Using the natural environment and working with animals.	O	O; G
Didactic approach	Focus on facts and figures	O	G
Typological category		Content based site tour	Content focussed site tour and living history

Table 18 Showing the common characteristics associated with the range of theories for workshops defined typologically as Site tours. 'O' indicates the characteristic was observed and 'G' indicates it was demonstrated through the pupils' GLO assessments.

Value of the programmes

The question of the value of archaeological education for pupils is of central importance to this thesis and was divided into areas: first to understand the relationship between the different theoretical approaches and the educational value of archaeological education; second to understand how the programmes may have empowered pupils and third to understand what pupils enjoyed about the workshops. In describing how the results from each of the case studies I discussed whether or not the pupils enjoyed the programmes first, as this was perhaps the easiest aspect to tackle. I followed by discussing educational value of the programmes and finished by discussing the potential for the various programmes to empower pupils as this is the most difficult idea to address. I will continue in this format by addressing the areas of value in the same order here.

There were indications during all of the school visits that the pupils enjoyed themselves. In general, this was characterised by excited chatter and lots of relevant questions, but also the pupils directly expressed this when asked. The aspects of the workshops the pupils appeared to enjoy most were those where they could get actively involved. The GLO assessment responses of the pupils indicated that the workshop with the highest enjoyment rating was the one undertaken by School 6 at the Peat Moors Centre. On this basis the least enjoyable workshop was undertaken by School 5 at Bede's World (see Appendix H). However, this assessment has been made based on the generic learning outcome assessment, and although the GLOs are not mutually exclusive the assessments used did not

seek satisfaction ratings across all the GLOs and therefore, in the case of Bede's World the results may be somewhat skewed by the large numbers of pupils who referred to the farm animals.

The pupils also appeared to enjoy the ability to freely explore. This was shown particularly clearly during the classroom based study sessions at Corfe Castle, for example, the pupils in the exhibition area seemed to be particularly animated and playful. At first I questioned the value of this, but actually it allowed the pupils an opportunity to play, which they appreciated and enjoyed. This can also be balanced against relatively high levels of GLO assessment responses mapped against knowledge and understanding for these pupils. However, in contrast to this although there seemed to be a high level of enjoyment at the Peat Moors Centre this was not reinforced through other indicators of learning. Having said this, without further long term testing it is difficult to be certain about what pupils did and did not learn. Therefore, as Bartoy (2012, 558) suggests, archaeology is fun and pupils do enjoy themselves when engaging with archaeological education.

The discussion of what constitutes effective teaching and learning could fill a thesis in itself and to a certain extent depends on perspective. Here I have used two simple indicators. Pupils were deemed to have learned if they showed the development of skills and or knowledge, ascertained through the examination of the pupils GLO assessment responses. The programmes were deemed to indicate effective models of teaching if what the pupils learned correlated with what the archaeological educators intended them to learn. I have also considered the correlation of the

workshops to different characteristics associated with good models of teaching and learning, e.g. constructivism explains how learning takes place, but not teaching (see Ernest 1999).

Organisation	School Number	GLO	
		Knowledge and Understanding %	Skills %
Corfe Castle	1	59	0
	2	27	3
	3	54	5
	1	37	7
Bede's World	5	44	0
Peat Moors Centre	6	6	44
	7	11	30
	8	5	35
Hampshire and Wight Trust for Maritime Archaeology	9	37	10
Wiltshire Heritage Museum	12	73	0

Table 19 Showing the GLO assessment results for Knowledge and Understanding and Skills for each of the schools.

Based upon these simple criteria the most successful workshop in helping pupils to develop their knowledge and understanding was the workshop undertaken by School 12 at Wiltshire Heritage Museum (see Table 19). The results showed that 73% of all the pupils' GLO assessment responses from School 12 were categorised as knowledge and understanding. What is noteworthy about this result is that the education officer at Wiltshire Heritage Museum was the only archaeological educator whose approach was not characterised by any didactic features. She seems to have successfully helped the pupils to develop their understanding of the subject matter through alternative approaches, notably through a combination of active questioning, empathy and cognitive dissonance and assimilation. This outcome seems to correlate well with the intended outcomes suggesting this

workshop both enabled the pupils to learn effectively and demonstrated an effective model of teaching.

In general the results pertaining to skills are less encouraging (see Table 19). The highest percentage of GLO assessment responses categorised as skills came from the Peat Moors Centre and even then the highest percentage was only 44%. This is perhaps consistent with the fact that most of the workshops were focussed towards archaeological content rather than archaeological process.

One other case study worthy of particular discussion in terms of skills comes from HWTMA. Although the skills result for this workshop was low (10% based on the GLO assessment responses) throughout the workshop pupils did use mathematical skills. These were familiar to the pupils and thus this might in part explain why they did not show up in the pupils' GLO assessment responses. As highlighted in 6.6 above, Gauvain (2001) has identified that the application of academic skills to real world contexts is highly effective in augmenting these skills and therefore it would be interesting, on reflection, to have investigated the impact of this workshop on pupils mathematical confidence and ability.

It should also be acknowledged that only five of the teachers who had arranged the visits did so with an explicit curriculum aim in mind. The other schools were either taking part in the workshops opportunistically or were making the visit as part of a residential visit or off curriculum day. This suggests that the effectiveness of the workshops in terms of teaching and learning linked to the curriculum was not of primary importance to these

teachers and that they were more concerned with ensuring the pupils learned in general term (e.g. by developing other non-academic skills and enjoying themselves): for example, the teacher from School 4 explicitly stated that he saw one of the key values of the workshop being its contribution to the development of the pupils' social skills and team working skills. This suggests that the link to the National Curriculum is not as crucial as authors such as Pearson (2004, 140) have suggested (see p. 81).

The question of empowerment is complicated. As Griffin (1992) discusses effective learning can be empowering for individuals, but this does not necessarily translate into improved social empowerment. This is an important consideration, because as I discussed previously many archaeologists have argued that engaging with archaeology can be empowering and lead to increased social justice (see Chapter 4). Therefore, if, as Griffin (1992) suggests, the presence of learning confers individual, but not social empowerment, how can social empowerment be identified for this study?

One key indicator used here has been a positive overall increase in pupil's creativity. Having discounted the workshops undertaken by Schools 10 and 11 (as they are outside of the scope of the discussion about archaeological education) the highest creativity results were seen for Schools 2, 3, 7 and 9. These schools were all based in urban areas. In terms of socio-economic profile, School 7 does not seem to have been located in a particularly deprived area; the number of pupils in receipt of free school

meals is average, as is the proportion of pupils with special educational needs.

However, Schools 2, 3 and 9 are located in area of moderate and high deprivation. Thus, it is tempting to conclude that the impact upon these pupils' creativity is linked to feelings of empowerment developed through the archaeological activities. However, consideration should also be given to the creativity results of the pupils from School 1. They showed the lowest overall positive impact on creativity at only 28%, but also face moderate deprivation. It should be noted that the site tour they took part in had a significant correlation to didactic approaches and was quite rigid. This suggests that where archaeological education follows a more progressive format it does have the potential to empower pupils, but where a more traditional approach is taken this potential is unfulfilled. This in turn suggests that it is important for archaeological educators to think carefully about whether they intend to pursue social aims through their programmes and then to structure them accordingly. However, aside from a broad correlation between generally progressive ideas and creativity there seems to be no specific correlation between these results and a particular theory.

However, having made the point about the link between creativity and empowerment, just because individual pupils from schools in deprived areas may have felt more empowered through engagement with progressive forms of archaeological education that does not necessarily translate into evidence of increased social justice. It is not possible to definitively conclude whether

or not archaeological education has a wider impact upon social justice based upon these short-term results.

There is another possible reason for the high impact upon the creativity of pupils from Schools 2, 3, 7 and 9 in that all these schools are located in urban areas and thus the outdoor exploratory nature of the workshops may have been particularly exciting and different for these pupils, compared with those from other schools. This may explain why the results indicated that the pupils from School 7 showed a high overall increase in their creativity. It may also explain the low creativity results from School 1, which is also located in an urban area, in that perhaps the lack of freedom to explore despite being outside in an environment very different from their own caused more frustration rather than a positive increase in creativity.

Therefore, value for pupils could be demonstrated across all the programmes, but the nature of this value was variable. All of the workshops were enjoyable for the pupils to some extent and this does seem to have been linked to the presence of characteristics associated with experiential learning theory and a constructivist approach allowing free exploration. However, beyond this it becomes difficult to link the value for pupils to the range of possible theories. The workshops tended to be more effective in delivering knowledge and understanding than skills, but this seems to be more closely related to the perceived need of the educators to meet the needs of the National Curriculum than the underlying theories of the workshops. Also, although helping pupils to learn effectively can be empowering whether or not this is something that pupils specifically value is

uncertain. In terms of wider empowerment there are some indications that archaeological education can provide empowering experiences and this may be tied to the perception of a difference between the programmes and normal school learning and setting. Therefore, given the conclusion that the link to the National Curriculum may not be quite as important as at first thought, then perhaps in future archaeological educators can be braver in developing programmes which explore alternative standpoints and ideas.

6.9 Summary

The experiences of 325 pupils who took part in archaeological education programmes delivered through five different organisations between 2007 and 2009 were observed, assessed and analysed as part of this study. The aim of this research was to ascertain how archaeological education can be deconstructed against the range of relevant theories and how this theoretical framework relates to the value of archaeological education for pupils. The results showed that archaeological education is influenced by the full range of theories and that different programmes are influenced by a range of factors.

The background of the education officer, or at least the background of the person who develops the educational activities seems to have a bearing on the underlying theoretical basis in terms of archaeological theories, i.e. archaeologists tend to develop activities linked to processual archaeology ideas. Another significant result is that higher levels of creativity may be

linked empowerment of pupils, but they may also reflect the stimulating nature of an unfamiliar environment. This result and the explanation for it warrant further discussion in the next chapter.

These results also indicated that range of typological categories was narrower than at first suggested, but that a new category, living history was added. Also this analysis has enabled the definition of archaeological education to be refined by contrasting it against an arts education programme. Thus what becomes a central and defining factor of archaeological education is the influence of archaeological theories and ideas.

The results presented here have been described and discussed both within the individual cases and through comparison across the cases. These results have been used to begin to address the issues highlighted by the Research Questions, but this discussion will be developed further in the next chapter and will bring together ideas both from this chapter and the previous chapters.

Chapter 7

Archaeological Education, What's the Point? Discussion and Conclusions

7.1 Introduction

This thesis is an account of my research into archaeological education which has been framed around two Research Questions as described in Chapter 1. I have specifically sought to develop a further understanding of archaeological education in terms of its theoretical basis and its value for pupils. This has been achieved through both understanding the broad context for archaeological education, which includes its relationship to and distinction from other forms of public engagement in archaeology, and undertaking targeted research through case studies to explore the Research Questions.

I set out the context for archaeological education in Chapters 2-4 and outlined the methods I used to explore the Research Questions in Chapter 5. Chapter 6 is devoted to describing and discussing the results from five case studies. I have brought all that information together in this chapter in order to discuss my answers to the Research Questions. This chapter has been organised into several sections. In the first section I consider the findings of this research with regard to the research objectives and specifically consider

what these findings suggest about the theoretical basis for archaeological education and its value. Next I review the research methodology, with particular regard to its strengths. Following this I discuss the implications and impact of the research and consider possible recommendations for a range of stakeholders including archaeologists, teachers and other researchers. Here I also reflect upon my opinion of what constitutes engaging and effective archaeological education by drawing upon both ideas from the literature (discussed in Chapters 2-4) and the case studies presented in Chapter 6. Having addressed what the strengths of the chosen methodology were and discussed the implications of the findings I finally review the limitations of the study and consider what other questions arise from this research.

7.2 Findings

The Research Questions set out ambitious goals for this study, namely to identify what archaeological and educational theories are relevant to archaeological education and to understand how these relate to the value of archaeological education for pupils. Through the course of this research three interrelated themes emerged. First, the motivation for archaeologists to get involved in archaeological education and the relationship of this to the value of archaeological education both for pupils and archaeologists; this is critical to understanding the context for the sub-discipline. Second, and related to the first theme is a conscious acknowledgement of the political dimension of archaeology, i.e. that archaeology is not neutral (e.g. McGuire

2008). This position is related to post-processual ideas (e.g. Shanks and Tilley 1987) and in many ways these ideas define my approach to this research. The third theme, which extends the idea of the political nature of archaeology, is that there is a potential for archaeology to play a role in either subverting or maintaining the *status quo* (e.g. Smith 2006).

These themes are recurrent in this thesis and frame the understanding derived from the research and therefore in discussing the findings it is worth stating this explicitly. These themes are also implicit within the Research Questions. That is, the literature review revealed that other authors have made links between a number of progressive educational theories and archaeological education (e.g. Copeland 2004a, 2004b and 2006; Davis 2005; Henson, Bodley and Heyworth 2004) and others still have made links between a progressive approach to archaeology and social justice (e.g. Bartoy 2012; Henson 2004a, 30; Jeppson, 2012,). Alternatively however Planel (1990) made a link between processual ideas and archaeological education and others such as Franklin and Moe (2012) have identified an important potential for archaeological education to deliver stewardship messages (which again is linked to processual ideas). They argue that effective stewardship does benefit the 'public' (Franklin and Moe 2012), but essentially engagement in these terms is primarily about furthering the aims of archaeology rather than benefitting the public. The point that I am making is that there is a hypothetical link between the theories which underpin engagement efforts (including archaeological education) and value for both pupils and archaeologists. It is the nature of this link with specific regard to archaeological education which this research was

designed to explore and this should be remembered when considering the findings from this research.

It is widely recognised that public engagement is an increasingly important area of archaeological work, which is aptly demonstrated by the frequent reference to outreach and engagement in 2011 report by the Southport Group in terms of the provisions of PPS5 (see p. 68). Yet, notwithstanding the work of museums who hold archaeological collections, public engagement is still marginalised within the archaeological profession which is borne out by the findings of Aitcheson and Edwards' (2008, 70) report (see pp. 66-67). Therefore, it is no surprise that there is no consistent approach to and methods for public engagement in general and an inconsistency in the application of terminology (see pp. 83-85), much less agreement over why engagement is important (see pp. 194-199). Equally, these issues also apply to the sub-discipline of archaeological education. I strongly believe this problem is exacerbated by the lack of clear understanding of archaeological education and that lack of understanding is due to the lack of theorisation of the subject. Without clarity regarding the theoretical basis of archaeological education it remains something that is marginal to other areas of archaeology, fitted in around other work, approached in an *ad hoc* manner, and crucially under-researched. Therefore, these issues have framed my interest in understanding both the theoretical basis of archaeological education and its value for pupils, which I see as inextricably linked. However, for clarity I have separated these areas in terms of the Research Questions and therefore, have also addressed these areas separately in the sections which follow here.

The theoretical basis for archaeological education

As there has been little dedicated research about archaeological education (Davis 2005, 4; Stone 1997, 26), I have attempted to theorise archaeological education, in the first instance by considering its origins and place within archaeology and archaeological engagement and by discussing a range of relevant archaeological and educational theories (relevance was established through references by other authors). In the second instance using the understanding developed from the literature review I created a framework for analysing archaeological education in terms of its theoretical basis. I used this framework to understand how different practical approaches to archaeological education can be deconstructed in terms of the underlying theories.

The first step I took in organising this information was to create a typology for archaeological education which defined the range of possible approaches (see p. 83). This typology was populated with examples drawn from a wide spread questionnaire survey (see p. 230) and therefore could be used to identify case studies to be investigated. However, before this analysis could take place the range of potentially relevant theories needed to be set out. Thus in Chapter 3, I explored the theoretical context for archaeological education by outlining the range of different theories that other authors had referred to, either directly or indirectly.

From archaeology the relevant theories were processual archaeology and post-processual archaeology. Crucially through the subsequent analysis I questioned my initial definition of archaeological education which defined

the archaeological parameters of education broadly (see Högberg 2007, 29). Instead, based on the theoretical deconstruction of the workshops I observed, I concluded that it was difficult to justify programmes in which the educator made no explicit reference to ideas or used approaches which could be mapped against any of the characteristics associated with archaeological theories. Thus, in my opinion, merely using archaeological material or locating a workshop in an archaeological setting does not constitute archaeological education. This conclusion was based on the observations of the results from the workshops led by an artist on behalf of Wiltshire Heritage Museum (see pp. 296-297), which although made use of archaeological material did not explicitly encourage the pupils to thoughtfully engage with the archaeology.

In terms of archaeological theory the link between processual archaeology and archaeological education was first posited by Planel (1990). However, he went on to suggest that the impact of processual archaeology on archaeological education was limited since it was aligned to The New History which had a limited impact upon the curriculum. Furthermore, given that the National Curriculum has a tendency to lean towards a content driven history curriculum I anticipated that this would also limit the impact of processual archaeology with its focus on archaeological skills. Yet, the results presented in Chapter 6 suggest that in fact processual archaeology has had a significant impact upon archaeological education.

In fact all of the programmes observed demonstrated a strong link to processual archaeology, mainly though the explicatory use of artefactual remains. What is particularly interesting about this is that the educators use

artefacts to develop content based knowledge (e.g. how the Victorians lived, or what life was like in the medieval period). The scientific basis for archaeology is reinforced by the objective 'facts' which can be revealed through using artefacts. This approach endures even when no other archaeological skills are mentioned, since the use of artefacts in this way is underpinned by a process of scientific recovery and analysis. Therefore, it could be argued that the content based approach to the history curriculum actually reinforces the positivist stance of a processual approach, since the archaeological processes which develop that content remain unquestioned. This observation reinforces the view of Jeppson (2012, 581-582) in his critique of the implicit authority of a professionalised and scientifically authentic archaeological workforce.

Given the impact of processual archaeology it is worth considering the general influence of processual thinking on archaeology in general and thus how this wider influence has an impact upon archaeological education. This was discussed to some extent in Chapter 4. I asserted here that the influence of processual archaeology underpins planning led archaeology and was linked to the push towards engagement that followed the professionalization of archaeology (Jeppson 2012; Watkins 2012). So considering that within the case studies characteristics associated with processual archaeology (e.g. an emphasis on data and the scientific method) were particularly prominent where the archaeological educators were trained archaeologists or the programmes had been developed in close collaboration with archaeologists, perhaps this result is not surprising after all. However, what is perhaps more interesting is what it reveals about the value of

archaeological education for both archaeologists and pupils, which will be discussed throughout this chapter.

A strong link to processual archaeology was not at the exclusion of a link to post-processual archaeology, although this was weaker. All of the programmes gave pupils opportunities to use empathy to understand the past and to linked to this was the understanding of agency and the role of the individual (these are aspects of post-processual archaeology which I argued could be relevant to archaeological education in Chapter 3). Given Davis' (2005, 26) interpretation of Piaget's developmental stages which predicts that primary school aged children will not be able to grasp the abstract concept of the past I assert that the use of empathy which grounds ideas about the past in the present and with the individual, enables children to make sense of the past from their own perspective. Indeed, Johnson (1999, 104) reports that Hodder's justification for discussing this idea is that this is how we all make sense of the past

Yet, the impact of the other characteristics of post-processual thinking that I defined as important (see p.114) was limited; for example, the only instance where the presentation of multiple interpretations was observed was during the workshops delivered by HWTMA (see p. 283). This may be dually attributed to the implicit dominance of the scientific 'facts' presented within the content focussed framework defined by the National Curriculum for history and the implicit 'authority' of archaeologists as experts as is promulgated through a generally processual approach to archaeological practice. It is interesting to note that the workshop delivered by HWTMA was overtly focussed on skills and thus it can be argued that by revealing the

processes behind the interpretation of archaeology and engaging pupils in those processes that they are also permitted to make interpretations. This idea is supported by Davis' (2005, 13) notion of the depoliticised narrative in that she states that masking the basis for interpretation its authority is unquestionable and thus the converse should also be true, i.e. in that revealing the basis for interpretation (in this case archaeological methods) it becomes something to engage with. This approach has been used successfully in working with indigenous people (e.g. Merchant 2011) and there is no reason why it could not also be applied more broadly in educational contexts.

However, it should be noted that the workshop delivered by HWTMA was not being explicitly linked to the curriculum by the school teacher, because it did not fit in with the history curriculum despite the evident links to the geography and numeracy curricula. In the case of the other programmes observed the need to meet the content focussed aims of the history curriculum within a very limited time period may in part be responsible for the archaeological educators bypassing a discussion about methods and interpretation and instead packaging up a series of archaeological 'facts'. Given the emphasis by other authors (e.g. McGill 2011; Merchant 2011) on the importance and efficacy of relatively long term commitment associated with a collaborative approach it is understandable that in the short time frames traditionally associated with school workshops that archaeological educators take a more didactic approach as a short cut.

In terms of educational theories other authors have linked archaeological education to constructivism and social constructivism

(Copeland 2004a; 2004b; 2006; Davis 2005). I also found references to experiential learning theory (e.g. Hein 1998, 31), learning styles theory (e.g. Hooper-Greenhill 2007, 174), multiple intelligence theory (e.g. Henson, Bodley and Heyworth 2004, 37) and didactic approaches (e.g. Hein 1998, 25-29) amongst the literature as outlined in section 3.2. There are crossovers between the different theories, in terminology, in perspective and in terms of the key educationalists that developed them. Furthermore, just as most archaeologists are not conscious of the role of theory on a day to day basis this is also true in education. In recent years teachers have had to respond to a barrage of politically driven educational directives (Ball 2008) and it is unlikely that amongst trying to deliver them they stop to analyse the theoretical basis behind the directives. Thus in practice teachers may use social constructivism in developing group led strategies alongside more didactic teaching, whilst all the while catering for pupils with different learning styles. For an archaeologist looking in the picture is confusing and this is made worse by the lack of clarity in sources for archaeologists and other heritage educators, for example the MLA guidance on the ILfA website which refers to Gardner's multiple intelligence theory when explaining a learning styles questionnaire (Marcen 2004, 7). Thus as Davis (2005, 4) points out, archaeologists do not know enough about educational theory. What I was able to do in Chapter 3 was to identify the range of theories that others had referred to in terms of archaeological education and discuss their relevance to the subject. These ideas were then explored further in Chapter 6.

Notably, although characteristics associated with constructivism and socio-cultural perspectives were viewed across the different cases, none of

them were common across all the cases. Some archaeologists have championed constructivism (and social constructivism) as a useful and important theories for archaeological education (e.g. Copeland 2004a; 2004b; 2006, Davis 2005) and whilst I am not disputing that constructivism and socio-cultural perspectives (including social constructivism) are both useful and potentially important for archaeological education, they do not define approaches to it as the writings of Copeland (2004a, 2004b) and Davis (2005) suggest. Instead, archaeological education is theoretically more diverse and I would argue that it is entirely appropriate for archaeologists and archaeological educators to draw upon a range of different theories depending on what their intended outcomes are. However, I strongly agree with McGill (2011, 166) that archaeologists and archaeological educators should be clear about ideas they are influenced by so that they can develop programmes that better meet the needs of both pupils and archaeologists.

Having made this point when constructivist ideas are applied they can lead to effective archaeological education as I observed, for example, the way in which the education officer from Wiltshire Heritage Museum used cognitive dissonance and assimilation to help pupils develop knowledge about the Victorian period in conjunction with active questioning (see p. 302). Additionally, the free choice elements of the classroom based study sessions at Corfe Castle (e.g. see p. 242) and during the farm tour at Bede's World (see p. 255) seem to have been particularly effective. Thus although, Copeland (2004a, 2004b) and Davis (2005) are not correct in the broad assertion that archaeological education is universally structured by

constructivism, they are right in advocating for its use as it provides pupils' with effective learning opportunities.

I also discovered that all the practical approaches I observed could be characterised by the opportunity for pupils to engage in direct experience and reflect on that experience, which can be associated with experiential learning theory (see p. 156). An example of this was observed at Wiltshire Heritage Museum where pupils from School 12 were able to handle real artefacts and reflect on this experience (see p. 83). It is a leap from here to say that all archaeological education programmes embody elements of experiential learning theory, but it certainly the emphasis on experience and reflections was common across the archaeological education programmes observed as part of this study.

Yet also none of the archaeological educators completed the experiential learning cycle and encouraged pupils to develop their reflections into future action or ideas. Other providers of outdoor learning have been criticised for employing a model of experiential learning but not following it up with the last step and some have countered this by saying that pupils do this naturally after the experience (Richards 1992). Whilst it is probably true that in many cases pupils are influenced by what they have learned and take that learning forward, this argument is weak since it is based on assertion rather than evidence. Also it is possible for educators to help pupils in completing the experiential learning cycle as demonstrated during the workshops for Schools 10 and 11 (see p. 298). The artist who led these workshops did discuss with the pupils how the learning from the workshop could be carried

forward. He suggested they continue to practice and refine the technique and to create works for exhibition, which many of the pupils planned to do.

Furthermore, it seems apparent that there were opportunities to complete the experiential learning cycle during the archaeological education workshops, but they were missed: for example, HWTMA discussed the results from recording the hulks in terms of trade and industry in the past, but they could have gone further to consider current economic activity in the area, or talk about the mathematical skills the pupils used and how else they could use them. At Wiltshire Heritage Museum pupils were encouraged to discuss Victorian values and compare them with modern values, but they did not directly consider what the implications of modern values are or how they might learn from the Victorians about how to and how not to treat people.

The idea that archaeological education could be used in this way builds upon a vision for archaeological education put forward by Henson (2004a, 28-29) which positions archaeology as a subject with contemporary relevance, a way of considering solutions to the problems of the present and the future by applying understanding from the past. There is also a precedent for this sort of socially relevant approach in environmental education which puts citizenship at the heart of educational endeavours (Corbishley 2011 222). I echo these sentiments, but would like to go further and argue that if archaeological interpretation is actually a construction made in the present (see Holtorf 1997), that what it actually has is greater relevance for understanding today and ourselves than it does for the understanding of the past. However, I suspect that all of those who were involved in the archaeological education workshops I observed overlooked this relevance

and relegated archaeological understanding to merely understanding the past and therefore this explains why they did not give consideration to how the skills and understanding that the pupils developed in the workshops could influence their future behaviour. Using Bartoy's (2012) terminology this may be referred to as learning **about** archaeology, as opposed to learning **from** or **through** archaeology.

Another feature of all the archaeological education workshops I observed was the abundance of characteristics which could be simultaneously mapped against learning styles theory and multiple intelligence theory. Initially, I attributed this result to the sensory rich environments for the various archaeological education programmes, but when I compared these results with those from the artist led workshops I realised that there must be another explanation, since the artist led workshops also took place in sensory rich environments, but had a much narrower focus in terms of learning styles engaged and intelligences targeted. I therefore suggest that in order to make sense of archaeology pupils need to explore it using different techniques and this mirrors the multi-disciplinary approach archaeologists themselves use: archaeological evidence is often a puzzle, an artefact with an unknown function, a landscape built from generations of habitation and settlement, layers of soil overlying and intercutting each other. Archaeologists routinely use visual images in the forms of maps and plans, historical accounts and data from experiments, scientific techniques or ethnographic contexts together to make sense of the archaeological record. I believe the pupils were encouraged to work in this way by the archaeological educators but also naturally called

upon a range of skills to engage with archaeology, and hence the variety of characteristics associated with different learning styles and different learning behaviours seen.

Didactic approaches to education were observed during all the workshops except for that delivered to School 12, which indicates that although archaeological education can be didactic in form it is not necessarily always so. What is particularly interesting about this result is that the most commonly seen didactic approach was a focus on facts and figures. I attribute this to the compulsion by the archaeological educators to meet the content focussed demands of the history curriculum. As stated previously (see p. 101) many teachers struggle with a skills based approach to history and so focus on a chronological approach (Henson, Bodley and Heyworth 2004, 35) and this in turn influences archaeological educators to develop programmes which target chronological periods rather than skills. I believe that in emphasising facts and figures in a didactic way the educators are trying to hedge their bets and ensure they transmit the 'correct' facts to the pupils. Yet, in terms of helping pupils to develop knowledge and understanding the most effective workshop was the one delivered to School 12 where an alternative approach was adopted. Here, the education officer eschewed a focus on facts and figures and instead used a combination of cognitive dissonance and assimilation, a post-processual emphasis on empathy and active questioning to enable pupils to develop their own ideas about the past (see p. 302).

Therefore, what the results indicated was that archaeological education can be deconstructed in terms of a range of different theories.

However, what I had initially anticipated was that different practical approaches described through the typology would be aligned to particular theories. This was partially true: for example, 'working with artefacts' seemed to be linked to processual ideas (see p. 321) and 'living history' was linked to socio-cultural perspectives (see p. 322). Yet, 'tours' could vary quite significantly in terms of how they were theoretically deconstructed (see pp. 323-324). This suggests that the typological categories can be useful in terms of describing different practical approaches, but they are not a shorthand for describing different theoretical approaches. Furthermore, my results did not suggest that one particular approach (based on the typological categories) was any better than another, but that the effectiveness of the workshop was dependent on the individual approaches taken (e.g. the use of cognitive dissonance and scaffolding as opposed to transmission to develop knowledge and understanding).

Thus, although it is possible to analyse archaeological education in terms of the range of identified theories it does not appear that there is a conscious (see Appendix E) or systematic application of theory to practice. It is interesting therefore to consider the mechanisms by which theory filters into practice. I assert that there are four routes of influence: first, the general impact of processual ideas on archaeologists involved in developing archaeological education programmes; second the educational training and backgrounds of specialist educators; third, the impact of archaeological theory on public interpretation about archaeology and; fourth, the impact of educational theory on education in general.

These four routes of influence can be described as direct or indirect. That is to say, the theoretical leanings of the professionals (both archaeologists and education specialists) involved in archaeological education will have been developed through their training and backgrounds and may be described as a direct influence on the theoretical basis for archaeological education (albeit still unconscious). These influences can be clearly seen in terms of the impact of processual archaeology on programmes where archaeologists were directly involved in their planning or delivery. This echoes the idea I explored in Chapter 4 (see p. 169) that modern field archaeology is still dominated by processual ideas (e.g. Jeppson 2012; Watkins 2012).

Indirect influence can be described through a general absorption and subsequent dissemination of ideas relating to the received wisdom about archaeology and education. Specifically, archaeological theory has an influence on the general view of archaeology that is presented to the public at large in popular books and museum displays, and archaeological educators will use this information to develop their programmes. Similarly, there is a complex web of theory influences modern approaches to education which archaeological educators assimilate through working with teachers, attending training sessions about how to work with schools, through watching teachers who bring schools out on school trips, and through reading the National Curriculum.

Thus archaeological educators are taking on a range of ideas from different areas of two richly theorised subjects when they develop their programmes for schools, often without significant thought about the theories

which underpin their ideas. Therefore, it is no surprise to find that archaeological education is theoretically varied. Ultimately, what I hope is not that archaeological educators dilute this rich theoretical basis by adopting one particular set of theories over others, but just that they are conscious of the influence of different theories and have the ability to make a conscious choice about the different theories they make use of if they wish. The reason I argue that it is useful to be able to make a conscious choice about the use of different approaches linked to different theories is that I have drawn a link between different theories and the value of archaeological education for pupils, and indeed for archaeologists (Nicholas *et al* 2011, 13).

The value of archaeological education

The notion of value is of central importance in this thesis since Research Question 2 was specifically framed to explore the value of archaeological education for pupils. In general terms, the notion of value is much debated by archaeologists and as Versaggi (2008, 203) claims, the idea of heritage value covers a range of values. Thus in order to address Research Question 2 value for pupils was defined in three ways: 1. the educational value of archaeological education, 2. the value to pupils in terms of providing an enjoyable experience and 3. the value of archaeological education in terms of providing an empowering experience. Therefore, the results presented in Chapter 6 were interpreted against these ideas. However, in addition to the value of archaeological education for pupils a recurring theme throughout this thesis is the value of archaeological education more generally for archaeologists and in terms of the discipline as a whole. These values have

been discussed by frequent references to the multiple perspectives model and deficit model for engagement.

In some senses the discussion of the multiple perspectives and deficit models in this thesis has presented a polarised view, whereby archaeologists fall into one of two camps: either archaeologists get involved with public engagement (including archaeological education) because they see that it is a useful way to spread archaeological messages and promote preservation (e.g. Moe 2002, 176) or because they feel it is a social duty (e.g. Smardz 1997, 103). However, the sharp definition of these views presented in the literature do not always reflect the more blended reality of archaeologists and educators working within a number of practical constraints and boundaries (McGill 2011, 155). Thus, in discussing value here an idealistic approach must be balanced against the practicalities of reality, but also the nuanced position of many archaeologists who see value in both preserving archaeological heritage and also using this as a mechanism to further social justice (e.g. Baram 2011).

However, returning to the idea of value for pupils, the first value I will discuss is educational value. I based my assessment on the success of the archaeological education programmes in helping pupils to develop their knowledge and understanding and their skills. What the results indicated is that different approaches varied in developing pupils in this way as discussed in section 6.8. Specifically, in terms of enabling pupils to develop knowledge and understanding the most effective approach was observed during the workshop undertaken by School 12. During this workshop the Wiltshire Heritage Museum education officer used a combination of active questioning,

cognitive dissonance and empathy to help the pupils learn (see pp. 300 and 302). What is most interesting about this result is that the education officer did not resort to didactically transmitting a series of facts and figures to the pupils, which occurred in all the other workshops. This suggests that progressive approaches to archaeological education linked to constructivist and social constructivist ideas are most effective in helping pupils to learn about the past.

The archaeological education programmes observed were on the whole less successful in helping pupils to develop skills. Given the emphasis on processual approaches to archaeology this may seem incongruous, but as discussed above the processual approach was largely mediated through a content based curriculum. This result also makes sense in terms of Planel's analysis (1990, 272) of the failure of the New History and its skills based approach.

An exception to this result was observed during the workshop led by HWTMA which encouraged pupils to use simple mathematical skills to record hulks on the foreshore at Forton Lake. This focus of the workshop was not particularly prominent in the pupils GLO assessment responses as they preferred to focus on the interpretations they derived through the recording. This may be partly explained by the fact that the skills were familiar to the pupils and therefore they did not feel they were worth commenting on. However, the fact that the workshop enabled pupils to reinforce and practice their mathematical skills in a real world context does suggest the workshop had educational value. This can be related to Gauvain's (2001, 49) ideas

about situated cognition. In this case, the success of the workshop in giving pupils the opportunity to practice mathematical skills can also be linked to the processual emphasis on the archaeological method.

The findings presented in Chapter 6 indicate that archaeological education can be of educational value, but is not universally or inherently so. The educational value of archaeological education depends on the approaches that archaeological educators take (and probably also the receptiveness, aptitudes and learning styles of the pupils). However, a constructivist approach to developing knowledge and understanding seems to be effective and a processual approach can be effective in giving pupils the opportunity to develop or practice skills as discussed above. These findings may help archaeological educators to choose their approach depending on the intended educational outcomes: for example, if the objective of a programme is to develop pupils mathematical skills, using archaeology as situated cognition and putting those skills into a real world context may be effective, however, if the educational objective of a programme is to develop pupils' knowledge and understanding of a particular chronological period then using approaches which encompass cognitive dissonance and scaffolding may be appropriate.

The second value I was interested in pertains to enjoyment. Most of the pupils appeared to enjoy the programmes and their enjoyment was characterised by laughter, focussed chatter, a willingness to answer questions, and engage with the activities and the archaeological educators. This enjoyment seems to have been linked to the experiential and hands-on nature of the programmes. Based on the GLO assessment responses of the

pupils, School 6 had the most enjoyable experience and clearly showed enjoyment of the hands-on activities, such as the wattling and daubing (see pp. 270-271). However in some cases merely the fact that the programmes are outside of normal school confines conferred an enjoyable experience, as demonstrated by some of the pupils who took part in the hulk recording workshop led by HWTMA who were interested in aspects peripheral to the workshop such as the presence of a cat and the coach ride (see p. 286). Thus, the ability of archaeological education programmes to promote enjoyment is not necessarily a defining feature. Any outdoor learning programme (including the arts education programmes experienced by School 10 and School 11) could also deliver an enjoyable experience for pupils in these terms. Furthermore, if the only reason to engage with archaeology is to have fun, as Bartoy (2012, 558) suggests, then on what grounds can archaeological educators persuade teachers to use archaeology over a range of other 'fun experiences', especially given its, at best, marginal relationship to the curriculum? Clearly, it is important that pupils should enjoy engaging with archaeology, but this value must be supported by other values in order to gain the support of teachers (McGill 2011, 154).

The third aspect of value for pupils that I considered relates to empowerment and social justice. Understanding archaeological education as valuable in these terms was derived from ideas from the literature which suggest that this is both possible and desirable (e.g. Henson 2012, 222; Jeppson 2012, 589). This idea was also bolstered by comments made by White (P. White pers comm. 5th June 2007) who said she was interested in

developing the self-esteem and confidence of pupils and one of the teachers from School 2 (see Appendix F) who said that he valued the programmes at Corfe Castle for their impact upon the pupils social skills and confidence.

The general potential for archaeology to empower and further social justice is often linked to post-processual ideas in terms of accepting multiple views, deconstructing the political nature of archaeology, and using this perspective to address social issues (see Chapter 4). Given the links that authors such as Copeland (2004a and 2004b) and Davis (2005, 22-25) have drawn between constructivism and archaeology and in particular between constructivism and post-processual archaeology (Copeland 2004a, 134) it is tempting to suggest that archaeological education might have an effect on empowering pupils due to its alignment to liberal and progressive theories.

However, if that assumption was correct a stronger correlation between archaeological education programmes, post-processual archaeology (over processual archaeology) and constructivism might be expected. In fact, although there was a link between archaeological education and post-processual ideas this was not to the exclusion of a processual approach; this may also be seen as indicative of the reality of practice in that an approach which is entirely consistent with a particular theoretical standpoint is not always possible (Cole 2012, 76-77). For the reasons discussed in Chapter 4 modern archaeology still leans towards ideas associated with processual archaeology (Jeppson 2012) and since archaeological education is framed by the wider discipline of archaeology, this overriding influence is understandable.

Additionally, as noted above the impetus for archaeologists to get involved in public archaeology and archaeological education are not always clearly defined by the deficit or multiple perspectives arguments. Many archaeologists believe that archaeological preservation (the aims of which may be furthered through educational programmes) are for the public's benefit in terms of maintaining identity and developing a stake in communities (e.g. Baram and Austin 2011; Baram 2011). Others still have critiqued multiple perspectives arguments by saying that they are detrimental to social justice: if all ideas are equally valid and worth hearing those who are less powerful remain marginalised against the more powerful voices (e.g. Hart 2011) and it is the duty of archaeologists to make value judgements. These ideas blur the boundary between the deficit model and the multiple perspectives arguments. Thus, the alignment of archaeological education programmes to ideas consistent with processual archaeology need not mean that archaeological education is disempowering or ineffective in promoting inclusion.

Having said this, as Dewbury and Broadrose (2011, 111) speculate, a lack of engagement with non-archaeological communities may be the result of an unwillingness of archaeologists to examine their own assumptions and beliefs. I argue that a lack of understanding of the theories underpinning archaeological education is a symptom of Dewbury and Broadrose's charge and therefore, a critical awareness of the theoretical basis for the sub-discipline is crucial in archaeologists approaching educational engagement in a more reflexive way. As such, although on a personal level I subscribe to the idea of Smardz (1997, 203) that archaeological engagement should

primarily be about empowering communities, I recognise that many archaeologists take a range of alternative positions and therefore, what I ultimately propose is that archaeologists are clear about their position, and are therefore able to choose the most effective methods to achieve their aims. It is this clarity of purpose that is sometimes obscured by the authoritative nature of the processual framework and may serve to undermine inclusion based around processual models.

The link between social justice and empowerment and different theoretical models is complex in reality and as such no hard and fast generalisations can be made about the suitability of a particular theoretical perspective and the potential of archaeology to empower individuals and communities. Furthermore, as the research progressed it became clear that not all the claims for the benefits of archaeological education were focussed on social aims. For example, problem-solving skills and inquiry skills (Ballantyne 1998, 77; Keen 1999, 230–233; Kehoe 1990, 208) may be important and valuable but are not immediately associated with social justice. Similarly, although it has been argued previously in this thesis that archaeology can provide an empowering alternative to history studies since it has a greater potential for revealing hidden histories (Davis 2005), some authors believe that merely the tangible nature of archaeological material can provide an engaging ‘antidote’ to documentary based exploration of the past (Stone 2004, 4).

Thus, the relatively weak alignment of the archaeological education programmes to post-processualist ideas which was observed does not necessarily mean that they did not have a positive and empowering impact

upon pupils. As such, the results of the creativity assessments provide interesting food for thought. Within this thesis, Friere's (2000, 73 [1921]) ideas about the importance of creativity in an empowering educational experience have had a great influence and in fact this informed the decision to look at the impact of the archaeological education workshops on the pupils' creativity (see p. 222).

Half the schools (excluding Schools 10 and 11) showed an overall positive increase in their pupils' creativity of 60% or over. The highest results were seen amongst the pupils from Schools 2, 3, 7 and 9. The socio-economic profiling indicates that the pupils from Schools 2, 3 and 9 were relatively disadvantaged, but this is not true of the pupils from School 7. Furthermore, the socio-economic profile indicates that pupils from School 1 faced relative deprivation, but showed the lowest overall increase in creativity. Therefore, if creativity is a useful indicator of empowerment, the results from Schools 2, 3 and 9 tentatively support the idea that archaeological education can provide an empowering experience.

However, the results from Schools 1 and 7 must be explained. In the case of School 1 it should be noted that they took part in a rigidly executed site tour which drew heavily on didactic approaches (and thus perhaps did not engender the same progressive and empowering approach than was adopted for the other workshops). School 7 is anomalous, but might relate to the nature of what empowerment means which will be discussed next.

As Griffin (1992, 31) has noted it is one thing to correlate effective learning with personal and immediate empowerment, but quite another to

make a leap to an impact upon long term empowerment and social justice. It is tempting to bring together the debate about the political nature of archaeology and the passion for pursuing social justice issues expressed by some authors such as McGuire (2008), Smardz (1997) and Smith (2008) and conclude that the impact on creativity recorded through this study is related to social justice. However, not only do the results from School 7 cast some doubt on this conclusion (the pupils from this school showed no indication of suffering from social deprivation, yet one of the highest overall positive impacts upon creativity was recorded for them), but this sort of conclusion cannot be based on such a short term measure of impact. A long term study would be needed to determine this. An alternative is that the results may indicate is that the impact on creativity was merely related to engagement.

However, it is particularly interesting is that the schools whose pupils showed the highest change in creativity came from urban areas. It is possible that the outdoor nature of the workshops (particularly in the case of Corfe Castle and The Peat Moors Centre) and their rural settings were sufficiently different from the pupils' normal environment to inspire them and perhaps encourage them to think more flexibly.

The results may also be interpreted in another way. The visits made by Schools 3, 7 and 9 were either only being loosely connected to the curriculum or had no curriculum link at all. Perhaps this freedom from curriculum constraints meant that pupils' were able to explore more freely. This suggests that approaches which are aligned to free exploration are valuable for pupils. Implicit within this observation is also a potential for archaeological education to have a much greater positive impact for pupils

by refocusing elements of the programmes to allow pupils to develop their own ideas and responses more frequently.

This also suggests that the fact that archaeology does not appear on National Curriculum is not as great an issue as many archaeologists have indicated (see p. 81). In fact, Falk and Dierking (2000, 138) have argued that museums that try too hard to replicate formal school education actually devalue what is most important and valuable about museums education and so perhaps same can be said of archaeological education. Having made this point a word of caution ought to be offered in that this observation is drawn from teachers who have chosen to engage and that many more who do not take part in archaeological education programmes may do so because of the poor fit to the curriculum. As Hooper-Greenhill (2007, 104) argued for museums education, a fit to the curriculum is important in terms of booking a visit, but is not what teachers value most highly. Thus archaeologists must know the language of the curriculum and be able to effectively map archaeological education programmes to it, but should ensure that their programmes give pupils a different learning experience than the one they receive in the classroom.

However, again there is an anomalous result which must be explained if this conclusion is to be accepted and that is provided by School 2 who showed a significant overall increase in the creativity of the pupils following the workshop. The visit being made by this school was firmly linked to the curriculum, but perhaps the free exploration element of the classroom based study session mitigated for the curriculum tie.

What these results indicate is that archaeological education can be engaging, but it is not possible to say with certainty why there is this link between some of the programmes and a positive impact upon pupils' creativity, as there are several possible explanations as described above. Having said this, all of the explanations mooted can be seen as different ways of looking at essentially the same overarching reason: what seems to be occurring is that the greatest impact upon pupils' creativity occurs when archaeological education is different from classroom learning. This may be because pupils are enabled and allowed to engage in a different way than in school, that their teacher's expectations are different, that the nature of the setting and activities are different or that the pupils are freed from the 'political' influence of their normal schooling. This research has highlighted these results but does not give enough detail to draw definitive conclusions. Therefore, exploring this aspect of archaeological education in more depth through a longitudinal study may be a fruitful area of further research (see pp. 386-388 below).

It is potentially difficult to develop an idea of the real value of archaeological education in such short time frames. Delivering real benefits involves working with pupils over a longer time, building relationships, offering a different conceptual paradigm that can be explored and reinforced over weeks and even months. It is possible to attempt this in a day, but the effects are likely to be short term. The ability to connect, challenge, become emotionally engaged and explore alternative perspectives should be embodied in archaeological education programmes and this is potentially one of the features that makes archaeological education different from other

outdoor learning; it should not just be about a hands-on experience, it should be about a conceptual change and that could be a selling point for archaeological education whereas at the moment it is just another outdoor experience aligned to a subject that is not part of the core curriculum and competing with other activities. Science education can be used to teach thinking and inquiry, but archaeology which focuses on the intangible has the potential to open eyes in a way that other subjects do not.

In summary it can be concluded that pupils derive value from the very fact that archaeological education occurs outside of the normal boundaries of formal schooling. Archaeological education can also have value to pupils in terms of helping to provide a good educational experience, in stimulating creativity, in engaging pupils, and enabling them to have an enjoyable experience. The potential positive impact of archaeological education on pupils' creativity can be tentatively suggestive that archaeological education can provide an empowering experience, but longitudinal studies are needed to explore this idea further. What this study does, however, is demonstrate some of the possibilities of and potential for archaeological education and begins to consciously uncover some of the theoretical influences and the value of different approaches for pupils. This is particularly important since the reality of different practical constraints, the needs of different communities, and the perception of value from the perspectives of different archaeologists creates a complex situation whereby different theoretical perspectives may be applied unconsciously and thus archaeological educators may not be as effective in delivering the outcomes they seek. At least an explicit recognition of these influences would enable archaeological

educators to be clear about their intentions and identify the most suitable approaches to achieve their aims within the practical framework they work within. This clarity of intention would also be beneficial for archaeologists in general, since the match between the aims of archaeologists and the needs of teachers and pupils could be negotiated more openly and provide a basis for honest and committed engagement.

7.3 Research methodology

The Research Questions addressed in this thesis are focussed at examining the personal experiences of pupils engaging with archaeological education. Therefore I chose a qualitative approach, as it was more suited to this sort of research than quantitative methodologies (Davis 2005, 49). This also follows the approach taken by Davis (2005) and Hooper-Greenhill (2007) and thus perhaps represents an emerging tradition in investigating heritage learning (see pp. 206-207). Furthermore, as I discussed in both Chapters 1 and 5, the dearth of previous research specifically about archaeological education (Davis 2005, 4; Stone 1997, 26), means that there is not a large enough body of evidence upon which to base a hypothesis. Therefore, an exploratory approach was appropriate.

I specifically chose to investigate my Research Questions through a series of case studies, the results of which were outlined and discussed in Chapter 6. I chose this approach because early indications both from the literature review and the results of the questionnaire survey showed that there was a high degree of variability both in terms of the type of organisation

who delivers archaeological education and the approach taken.

Implementing a case study approach enabled me to look at a range of different offers, the experiences of a range of pupils, and to compare the results across the cases to identify both similarities and differences. I have sought to understand these results within the wider context of archaeological education and archaeological engagement in general which I set out in Chapters 2-4.

In order to organise my understanding of the variability of archaeological education and to meaningfully select case studies to pursue I developed a typology of archaeological education (see pp. 215 and 230): in doing so I have developed language which can be used to classify different archaeological education approaches. Given the variability of activities which constitute archaeological education this could provide a convenient shorthand for describing their activities, at least amongst archaeological educators. I should add that following the research documented in Chapter 6 I found it necessary to add to the typological categories and it is very likely that other researchers will find the need to make further amendments, but crucially there is now a starting point from which to move forward.

I also developed a framework for understanding and analysing the different theories which are directly relevant to archaeological education (see p. 156). In doing this, rather than conceptualising the various theories in abstract terms key characteristics of each of the theories were identified so that archaeological education programmes could be mapped against them. This framework was invaluable in helping me to understand the complex web of theoretical influences and could help others in doing the same. Within the

scope of this research I have only been able to look at a relatively small number of archaeological education programmes and in doing so I have begun to address the identification of the theoretical basis for archaeological education, but this identification and understanding will be strengthened by more research and I anticipate that the framework I have created can facilitate this.

Additionally, the archaeological education typological categories and the framework of theories could be used to undertake a wide spread desk based analysis of archaeological education programmes. This could be achieved through creating a series of checklists for archaeological educators to feed back on the typological categories they identify their programmes within and also which characteristics from the framework of theories they feel they make use of. The results of such work would be mediated through the opinions and values of the educators and enshrine their perspective, but it may also encourage them to think more critically about the services and opportunities they offer to schools.

Therefore, my chosen approach was useful for looking at a spread of approaches and enabled me to gather information about the experiences of a wide range of pupils. From this I was able to make some generalisations and build an overview of archaeological education. Crucially, the approach I took had a relatively 'light touch' in practical terms and therefore, could be fitted in around the different archaeological education programmes and the requirements and time constraints of the individual school groups. Thus, although, inevitably my presence introduced an element of 'difference' into the programmes and the experience of the pupils this was limited and as

such the observations I made and other data I gathered related to the 'real' experiences of the pupils. I believe this was a particular strength of the approach I took. In some ways this compromised the depth of the information I gathered but it enabled me to gain access to archaeological educators and pupils which may not have been possible to accomplish had I pursued a more time intensive research design. This work therefore, forms the basis for securing further support for more in depth studies.

In terms of the specific research tools that I employed I found the generic learning outcomes assessment very valuable. It is a well developed assessment based on heritage learning focussed research (MLA 2006, 11). Within this study it proved to be useful both in terms of understanding the value of the activities in terms of the generic learning outcomes, but also by providing additional evidence to understand the pupils perspective and interests. In this respect this tool was particularly useful since there was little time available to speak to pupils in detail about their experiences.

In addition to developing tools to understand learning outcomes, the MLA (2008c) have also made an attempt to develop a framework for assessing social value: this is similar to the ILfA framework and discusses social impact in terms of a set of generic social outcomes. However, this language and framework does not seem to have been widely adopted by archaeologists and archaeological educators. Instead, here Friere's, (2000 [1921]) analysis of education and the link between oppression and the stifling of creativity have been influential. These ideas were used in conjunction with a simple divergent thinking test (Fontana 1995, 130) and were very easy and

quick to implement. Furthermore, the use of the divergent thinking test could be used to gather data about creativity from all the pupils, rather than taking a broad brush approach which is enshrined through the Generic Social Outcomes framework which is essentially a mapping tool. Thus, looking at the impact of archaeological education on pupils' creativity was designed to understand the impact of the programmes on their feelings of empowerment. However, although the results indicate that archaeological education may have an influence on pupils' feelings of empowerment drawing firm conclusions about this aspect of value necessitates a longitudinal study.

As outlined in the previous section (see pp. 351-364) the discussion pertaining to archaeological engagement in general (including archaeological education) is closely linked to the idea of value; i.e. what is its value is for pupils, what heritage values does it encompass, what is its value for archaeologists and what is the social value of engagement. Thus exploring these ideas naturally focuses research on qualitative approaches. Understanding value is complex, but often intuitive and therefore, it is perhaps natural that archaeological education in general and in particular its value has been under-researched. The research design I set out is a starting point for developing a framework for understanding archaeological education in these terms. Using case studies targeted through the typology has provided greater understanding of key approaches to archaeological education. Furthermore, comparing multiple case studies has enabled generalisations to be made and patterns have begun to be identified. Crucially, the research design I implemented was flexible enough to be employed across multiple organisations with multiple schools and allowed

me to gain an insight into the real experiences of pupils. However, it should be noted that the analysis of the findings presented in the previous chapter raises many more questions and that this research is just a starting point for addressing questions about archaeological education, rather than a definitive treatise. Therefore, given this understanding of how the methodology allowed me to investigate archaeological education it is pertinent now to consider the implications of this study and the further questions arising from it.

7.4. Implications and impact of the study

This thesis is an account of basic research into archaeological education which was primarily motivated by a need to address a research gap; namely to explore and identify what theories underpin archaeological education.

Understanding the theoretical basis for archaeological education has practical implications in terms of understanding its value to both pupils and archaeologists alike and although the value to archaeologists has been explored in this thesis, it is the value to pupils which has been of primary interest. Thus this research has implications for anyone who is interested generally in archaeological education, but also to those who seek to deliver stewardship and conservation messages through educational programmes, those who see social justice as a prime motivation for public engagement, teachers and to pupils themselves. There are also lessons in this thesis for policy makers and other researchers. I have drawn together a discussion of these implications and also highlighted other possible avenues of research in this section.

Archaeological educators and teachers

It is my intention that the ideas and findings discussed in this thesis begin to encourage more archaeologists involved with archaeological education and archaeological educators to think more consciously and critically about archaeological education, particularly in terms of what they are trying to achieve and how. These ideas also impact upon teachers in choosing whether or not to and how to engage with archaeology (McGill 2011). In order to enable learning **through** archaeology it may be useful for archaeological educators to take a more reflexive stance which acknowledges the interpretative nature of archaeology over its scientific methods (Dewbury and Broadrose 2011). By sharing authority for creating meaning pupils will be enabled to develop interpretation through a consideration of the available evidence and from there can develop a response to current and future issues. A focus on geographical themes such as environment, climate change, landscape formation and development can all be considered to be learning through archaeology. For example, during the programmes developed by HWTMA no-one asked why there were hulks on the foreshore; the industries the ships were involved in was considered, but this idea was not explored in terms of what happened to those industries and what that meant for local people in the present and the future. Likewise, during the workshops at the Peat Moors Centre the difference between Iron Age and modern technology was discussed, but there was no discussion of the fact that modern interpretations of Iron Age houses tend to be based on examples from the developing world and what this means in terms of the global distribution of resources. These ideas could easily have been

incorporated into the workshop alongside the sophisticated scientific ideas discussed. For teachers, this may involve choosing to engage with archaeological education to explore geographical ideas and citizenship.

A good example of an archaeological education programme which explores the interpretative nature of modern archaeology is the Parallel Perspectives programme described by Watkins (2012, 667-668). This project gives pupils the opportunity to hear traditional and scientific interpretations before going on to construct their own interpretations. It would be entirely possible to replicate this model in the UK even without the direct link to 'first nations', by including information from folklore and local myths as well as other unscientific ideas from previous generations. This approach could have been effectively employed at Corfe Castle and given the pupils' interest in stories, the gruesome and gory, is likely to have been engaging and memorable.

Furthermore, archaeologists and archaeological educators may also usefully consider the alignment of their programmes to the National Curriculum. As discussed in 7.1 above a close alignment to the National Curriculum may in fact undermine some of the value of heritage learning (Falk and Dierking 2000, 138). In trying to meet the perceived needs of schools and align programmes to the National Curriculum, in terms of chronologically based programmes which have a reliance on traditional teaching methods to impart facts, the programmes may not be as successful as intended in terms of developing knowledge and understanding. Teachers may find it useful to understand the historical links of the programmes, but

also have a dialogue with archaeologists about what else they hope to achieve through engagement.

In many ways the archaeological education programmes I observed were developed pragmatically to make use of archaeological resources for the purposes of educational visits linked to the National Curriculum using an intuitive approach. In some cases this worked quite well, for example during the Victorian handling session at Wiltshire Heritage Museum (see p. 302). However, the value of this pragmatic and intuitive response must be questioned as in the majority of the cases set out in Chapter 6, this approach hindered the development of pupils knowledge and understanding.

An alternative is to take an active approach to developing archaeological education programmes which set out the aims clearly and thereafter practical approaches are chosen which can achieve these aims. This research may help archaeological educators in choosing suitable practical approaches linked to an explicit theoretical idea. For example, if the purpose of a programmes or workshop is to develop knowledge and understanding, active questioning and providing opportunities for cognitive dissonance and assimilation could prove fruitful. If the point of the activity is to raise awareness of archaeological messages, practicing archaeologists should be involved, and if the aim of the programme is to develop social justice, then the specific needs of the target audience must be understood first in order to develop an appropriate approach.

Developing clear aims and outcomes for a programme will also help teachers to choose programmes which meet their needs more effectively, or to at least understand the premise of the archaeological educators so they

can ask them to develop an alternative offer. McGill (2011) refers to taking such an approach in her work with teachers in Belize and in doing so reveals that teachers can view archaeologists as important partners and that when these mutually beneficial links are explored better outcomes for both teachers, pupils and archaeologists can be achieved.

It is also important to consider the place this research has in a rapidly changing educational environment. The research described in Chapter 6 was all conducted within the context of an educational, political and economic climate which has changed significantly. Since the study began a new government has introduced a new educational agenda as was outlined in Chapter 3 (see p. 79). The education White Paper which was published in 2010 set out a vision of a 'back to basics' education (Department for Education, 2010). Indeed, an early draft of the new primary curriculum does focus on facts and figures based version of history (Department for Education, 2013a). One of the aims of the history curriculum set out in the proposed curriculum is for pupils to "gain and deploy a historically grounded understanding of abstract terms such as 'empire', 'civilisation', 'parliament' and 'peasantry'" (Department for Education 2013a, 165). The words in quotation marks are a telling indicator of the nature of the curriculum in reinforcing nationalistic and class based hierarchies. This is a focus that is woven through the draft curriculum and as such is reminiscent of the political agendas behind the initial introduction of the National Curriculum (Sheldon 2011).

However, what is particularly interesting about the draft curriculum for history is that prehistory is prominently featured at the beginning of Key

Stage 2. Previously, the exclusion of prehistory from school curricula was attributed to a political motivation to reinforce dominant power structures (Arenas and Obediente 1990; Kehoe 1990, 201; López and Reyes 1994, 143; Stone 1994b, 192). Furthermore, Arenas and Obediente (1990, 52) argued that a non-chronological approach to history teaching is another feature of political manipulation. The new draft primary curriculum for history takes a rigidly chronological approach (Department for Education 2013a). Therefore, it is interesting that to all intents and purposes the rhetoric around the new curriculum is based upon a right wing political ideology, and yet the inclusion of prehistory and a chronological approach may initially be viewed as being at odds with this. On further consideration the inclusion of prehistory is a small part of the curriculum and helps to begin the narrative of progression and the focus on chronology is at the expense of the study of historical skills. What is enshrined in the curriculum is a focus on great men and great deeds.

Therefore, it is worth considering the possibility that archaeological educators who are serious about providing a socially inclusive and educationally progressive offer might find allies in teachers who are critical of the introduction of the new curriculum. As discussed previously in this chapter teachers often choose to engage with archaeological education because they recognise its wider value and are less concerned about curriculum links (see p. 356), as long as there is a curriculum hook. The proposed curriculum could provide an effective rallying point for archaeologists to work with teachers to effectively question the grand

narrative and structural inequalities associated with formal compulsory state funded education.

However, one particular concern about the proposed curriculum is how 'full' it is compared with the range and scope of the current curriculum. Already, it is common for teachers to complain about a crowded timetable which leaves little time for enrichment activities (such as trips to archaeological sites) (e.g. Zimmerman *et al* 1994, 366). It is likely this problem will be exacerbated by the exhausting gallop through such a detailed history curriculum. Furthermore, the 'back to basics' nature of the curriculum and an ideological move away from the skills based cross-curricular approach of Rose (2009) championed by the last government is likely to mean that archaeological educators who try to overcome the problem of the crowded curriculum by offering programmes which are cross-curricular (and therefore time efficient) are likely to have little success. Nevertheless, archaeological educators need not be unduly alarmed by this traditional focus. Archaeology is an adaptable subject and can address historical questions about great figures as well as it can uncover the lives of ordinary people and the findings from this research have shown that archaeological educators are comfortable with focussing their programmes on historical content rather than skills.

On a more fundamental level the particular needs of teachers need to be considered by archaeological educators and these needs are often somewhat different to those of archaeologists (McGill 2011, 153). As Zimmerman *et al* (1994, 369) pointed out, considering the needs of teachers

is vital to the success of archaeological education. Teachers seem to be looking for programmes which are at least mapped to the curriculum, engage their pupils, offer something different to what can be delivered in the classroom, and provide a fun experience. Teachers may also want to raise pupils understanding of their heritage and identity (McGill 2011, 165; Sheldon 2011, 41-43). Many of the programmes observed provided at least some of this and as such it is no surprise that all the teachers felt their needs had been met when asked. Another feature of all the workshops observed is that there were relatively short, taking place over a morning or a day, whereas the programmes Zimmerman *et al* (1994) described was much longer and this suggests that within an overcrowded timetable, in general, teachers prefer archaeological education which is delivered in short bursts rather than over a long period of time. However, as discussed above and commented on by McGill (2011) it may be difficult to realise the full potential of archaeology in such short time frames. Breaking archaeological ideas and themes into smaller packets which are explored using a constructivist or social constructivist approach might be a useful approach which balances both the enlightening potential of archaeology and the short time frames available during school workshops.

As well as the potential ability of archaeological education to both deliver and challenge the curriculum, archaeological education can provide an enjoyable experience for pupils. As Bartoy (2012, 558) stated archaeology can be fun. Enjoyable and playful examples of archaeological education were seen across the case studies: for example, the classroom based study sessions at Corfe Castle seem to have been particularly

effective in terms of meeting the needs of pupils to play and explore as pupils were able to explore freely and choose from a range of activities to engage with. However, merely providing pupils with the opportunity to play misses the opportunity for archaeological education to be something different and unique. Therefore, the classroom based study sessions at Corfe Castle could have been more effective if the pupils were scaffolded in their role play to explore historical themes and ideas rather than just being a dressing up activity. Furthermore, within this consideration it is interesting that the archaeology inspired arts education programme did not endow pupils with the freedom to explore that the archaeological programmes did (see p. 298). This observation is based on one comparison, but it is worth considering if the freedom to explore is a differentiator for archaeological education. Further comparative research is necessary to determine this.

Thus archaeological educators need to make an effort to understand their own motivations (or those of the archaeologists they are working with) and choose appropriate approaches based on a clear understanding of the assumptions underlying different approaches. They also need to effectively communicate these to teachers and ideally have a dialogue with teachers in order to develop mutually beneficial programmes. Both teachers and archaeological educators should be clear about curriculum aims, but recognise that archaeology has greater value than this. Both groups should also understand where archaeological education can provide a unique educational experience and seek to deliver this in an enjoyable way.

Archaeologists

Throughout this thesis, but specifically in Chapter 4 I have debated the reasons for archaeologists to become involved in public engagement and set out two extremes, i.e. archaeologists who are motivated to pursue public engagement to disseminate archaeological messages (deficit model arguments) and those who are motivated to pursue social justice and promote inclusive archaeology (multiple perspectives model argument). I have drawn a link between the deficit model and processual archaeology, and the multiple perspectives model and post-processual archaeology. What my results indicate is that within archaeological education programmes characteristics associated with processual archaeology were particularly prominent where the archaeological educators were trained archaeologists or the programmes had been developed in close collaboration with archaeologists. One possible conclusion to be drawn from this observation is that archaeologists who seek to engage with schools in order to disseminate archaeological messages regarding their scientific methodology (and thus authority), in short who are motivated by the deficit model arguments for engagement, should be reassured by this result.

Yet the same archaeologists should be concerned that their messages are diluted when archaeological education is devolved to non-archaeological specialists. In Chapter 4 (see p. 181) I speculated that the delegation of archaeological education was for three possible reasons: first, that senior decision makers view this as a way of sharing authority, second that archaeologists value the perspective of educational specialists, third, that this is merely another manifestation of the depoliticization of

archaeological messages. There is a fourth possibility that archaeologists are unaware that their messages are diluted by their failure to directly engage in it.

Archaeologists who are motivated by the multiple perspectives model argument for engagement and participation should also take note since the only workshop which valued and encouraged pupils to consider multiple perspectives was the one delivered by HWTMA (see Appendix H). This may suggest that this motivation for engaging in archaeological education is not represented as strongly in practice as it is in the literature and perhaps this is another feature of the delegation of archaeological education.

However, these conclusions are based on extreme views and what these results probably indicate is that in reality archaeologists do not fall neatly behind either of the two arguments, but see the value in both ensuring that archaeological ideas are communicated and in using archaeology to benefit pupils. Indeed, some archaeologists, such as Baram (2011) and Nicholas *et al* (2011) believe that it is archaeological stewardship itself that confers social justice benefits. Thus, the emphasis on processual archaeology does not mean that the archaeologists who were involved in developing the programmes I observed were hostile to the idea of multiple perspectives model. What is likely is that the results I observed reflect the wider debate about the nuances between theory and practice in public engagement (e.g. Hart 2011). However, what is of concern is that in the case of the excavation activity at the Peat Moors Centre the archaeological messages were confused and this served to undermine both archaeological aims of the activity and possibly also the social aims. Therefore, I maintain

that it is advantageous for archaeologists to directly engage in archaeological education in order that pupils both benefit from access to 'experts' and so that archaeologists can become more acquainted with the needs of teachers and pupils (Zimmerman *et al* 1994, 369). Thus, whether or not archaeologists seek to promote social justice, archaeological messages or both, it is desirable for them to directly engage with schools, perhaps working closely with specialist educators in order to ensure their aims are represented (McGill 2011, 155). This engenders the idea of collaborative archaeology, which as Nicholas *et al* (2011, 25) assert:

. . .has proven to be effective in some cases in achieving an archaeology that is culturally sustainable, more relevant, more equitable and more satisfying to all parties involved.

It is worth explicitly addressing the idea of empowerment even when explicitly considering the perspective of archaeologists, since some archaeologists are clearly concerned that archaeology does confer social justice (e.g. McGuire 2008). Although, it is not possible to definitely address this issue without a longitudinal study there are indications from my results that archaeological education is not universally or inherently empowering: inclusion in these terms is assimilatory (Smith 2006, 44) and thus is a reinforcement of *status quo* power relations. Archaeologists who deliver archaeological education programmes should ask themselves if this is really what they want to achieve. Do they wish to reinforce the grand narratives of class, nationalism and gender inequalities? I would suggest that on the whole they do not. White (pers comm. 5th June 2007) in particular stated that she intended the programmes at Corfe Castle to help promote self-esteem. This aim is not consistent with programmes which reinforce structural power inequalities and in fact I would argue that by vocalising participatory aims

and then working to the opposite ends may exacerbate and further reinforce inequality. Thus, as I argued previously, with reference to Dewbury and Broadrose (2011, 111) archaeologists should be critically aware of their own influences in order that they are addressing the aims they intend and not unconsciously passing on messages that they may not want to.

Yet, even taking a reflexive stance it is not necessarily easy to subvert power relations, particularly when seeking to work within the structures that maintain them (i.e. the school system) (McGill 2011, 156; Molyneaux 1994, 6). However, archaeologists could be effective in this way by encouraging pupils to make emotional connections with heritage (Smith 2006, 305) and enable them to engage in dialogue (e.g. following Friere 2000, 95 [1921]). This approach will need to be balanced against delivering workshops and programmes that meet the curriculum needs of schools and will also operate within that system, but it will allow pupils a space to start to ask questions and develop their own answers. In particular archaeological education programmes should allow pupils to explore questions of identity and what connection the archaeological material has to the pupils. This approach really would set archaeological education apart from other learning outside the classroom activities (with the possible exception of museum learning).

It should also be about understanding the affect that archaeology can have on people's well-being (Jameson and Baugher 2008, 231). This could be described within the well-being framework developed by the New Economics Foundation (2012). They have identified five ways to well-being, the first of which is to 'connect' to other people and I argue that understanding identity through archaeology can facilitate that. This idea

engenders Baram's (2011) approach to initially decentralise the aims of archaeology in order to achieve community engagement and in doing so both further the aims of preservation and inclusion. Thus a move towards greater engagement and dialogue through archaeological education could effectively meet the needs of both pupils and archaeologists alike.

Policy makers and researchers

Given that this thesis is based around exploratory research into archaeological education the lessons for policy makers are relatively limited beyond highlighting its worth and consideration for further study. The recommendations are most appropriate for practitioners at an applied level rather than a policy level (both education specialists and archaeologists); however, it is worth considering the wider relevance of this research.

In Chapter 2 I discussed the limited consideration of archaeology in Henley's (2012) report on cultural education and concluded thus suggested that archaeology is marginalised in terms of cultural education. On reflection, the fact that archaeology is only given a passing mention in the report is perhaps partially due to the lack of understanding about archaeological education. My work demonstrates that there is a link between archaeological education and creativity and that archaeological education can provide a useful and valuable experience for pupils as part of a well-balanced education. This is relevant as Hooper-Greenhill (2007, 182) states that policy makers value creativity. I would like to see future reports about cultural education taking note of the role archaeology can play in promoting creativity

amongst pupils and thus for policy makers also to be influenced by these ideas.

Similarly, those advising on archaeological policy in national bodies, such as English Heritage ought to consider these findings. This research provides insights into understanding how archaeologists can engage pupils and how archaeological messages can be effectively disseminated through schools and this may be of interest to the policy arms of bodies such as EH. For example, the report about PPS5 (Southport Group 2011) was specifically drafted to enshrine recommendations about outreach but makes limited to reference work with schools.

The recommendations for policy makers are closely connected to those for researchers. As I stated above, given that this research is exploratory and based on how archaeological education is applied it highlights areas of further research which may be of more interest to policy makers. In particular I hope that other researchers will build upon the research into the theoretical basis for archaeological education and develop more specific research projects which investigate the effectiveness of different approaches. Crucially, I hope that other researchers will agree that archaeological education is a distinct area in its own right and worthy of dedicated research. Additionally, there are further questions about the link between archaeological education and creativity and whether or not archaeological education can really have an impact upon pupils' feelings of empowerment. A more detailed longitudinal study into the link between archaeological education and social justice is likely to have considerable implications for policy makers working in both the spheres of education and

health. These further questions for future researchers will be considered more fully in the next section, having previously considered the strengths of this methodology in section 7.3.

7.5. Limitations of the study

The research described within this thesis has effectively addressed the Research Questions as I demonstrated in the discussion of the findings in 7.2 above. However, there are three distinct limitations of this study: first, 'arms length' archaeological education was not considered. Although reasons were given for this (see p. 216) it may be appropriate to consider such approaches in future studies. Second, this study aimed to look at the experiences of the pupils who participated in archaeological education programmes, but the depth of the data pertaining to pupil experience was compromised in favour of a breadth of data across multiple schools. Third, the results give an early indication that pupils may be empowered through some engagement with archaeological education programmes; however, this issue cannot be effectively assessed through a short term study. These limitations will be explored further here with consideration to further questions and research.

From my initial reading about archaeological education and the responses to the questionnaire based survey I defined 'arms length' archaeological education as an archaeological education approach. Arms length approaches include training teachers in using archaeology and online and other electronic resources. In Chapter 5 I justified my decision not to

explore this approach by explaining that my Research Questions were focussed on the experiences and values of pupils and thus a relationship between archaeological educators and pupils was important. I felt that arms length approaches inhibited these relationships.

I began my research in 2005 and at that stage, although it was not uncommon for archaeology to have a public face on the internet, through websites, educational resources and games, the use of technology was more limited than it is today. The use of interactive technology and personalised experiences encapsulated by Web 2.0 technology (e.g. social media, wikis, blogs and podcasts) has been around for some time, but has only really begun to be embraced widely by heritage organisations in relatively recent years (since I began my research) (Billings 2009; UKOLN 2013). Since the adoption of such technology personalised learning experiences and the inclusion of multiple voices has been pioneered through an online presence (Atkinson 2012; Billings 2009). Therefore, although I stand by my decision not to have originally included arms length archaeological education programmes in my initial research design, technological progress indicates that it would be a fruitful area of further research now.

As mentioned above, key to the exploration of the Research Questions were the thoughts, idea and experiences of the pupils. However, given that research looking at archaeological education was limited I wanted to develop a broad view. This influenced my decision to look at a range of archaeological education programmes and to look at the experiences of pupils from multiple schools. This enabled useful cross-comparisons of

cases. However, the weakness associated with this approach was that I was not able to look at experiences of individual pupils in depth.

I believe that further exploration of pupils' ideas, thoughts and experiences would have improved the understanding of their perspective: for example, the opportunity to interview the pupils beforehand to properly understand their preconceptions and intentions and then follow this up with further interviews after the workshops would have allowed for a greater depth of understanding in terms of the value of archaeological education for pupils. However, there are significant issues and barriers in undertaking this depth of research with schools, notably in persuading teachers to allocate the time amongst their crowded timetables. Davis (2005) achieved this sort of deeper research by working with just two schools and developing a relationship with the teachers. Therefore, this provides an alternative to the approach I took. Yet, I maintain that an important part of my research was to take an exploratory look at archaeological education and in this sense my breadth over depth approach was appropriate. Having completed this research it is appropriate now to pick out particular questions and areas of interest, such as individual programmes and approaches, the experiences of the same pupils engaging in different programmes, the impact of different approaches on the creativity of pupils from different socio-economic backgrounds or the impact of approaches explicitly linked to different theories and to develop a more detailed study.

One specific area that I think is worthy of further and continued study is the idea of empowerment and social justice. This relates to the third limitation of my research in that the question regarding whether or not

archaeological education provides an empowering experience for pupils is actually very difficult to address, partly, because there is an assumption underlying discussions of social justice that communities are disempowered and vulnerable (e.g. Smardz 1997, 103) and partly because it is not possible to effectively assess the impact on social empowerment in the short term timescales I was working within. An effective understanding of the impact of archaeological education requires a longitudinal study.

The assumption that communities are disempowered and vulnerable were extended through this thesis in two ways: first, by considering the discussion of empowerment through archaeological education alongside indigenous archaeology, where there are clear signs of the negative effects of colonialism and post-colonialism; and second through the critique of the state funded compulsory education system as inherently oppressive (e.g. Wyness 2008). However, the socio-economic profiling of the schools involved in this study (see Chapter 6) does not indicate that all the pupils were deprived and disadvantaged. The relative lack of disadvantage amongst the pupils indicates that they did not appear to be suffering from social injustice in the first place. Therefore, if archaeologists and archaeological educators are serious about empowering pupils and furthering social justice then they must take a conscious approach to understanding what the backgrounds of the pupils they are working with are and develop programmes which specifically address the issues they face.

A good example of how archaeological education can be effective in addressing social justice issues is provided by Watkins (2012, 667-668) in his description of the Parallel Perspectives programme which seeks to work

with indigenous communities and allows them to construct their own interpretations. This programme has had a significant impact upon student attendance. In Britain a similar example might seek to work with particular communities (geographical or black and minority ethnic communities) to highlight the stories of the individuals involved through archaeological research (e.g. a re-appraisal of artefactual remains or a local excavation).

The programme described by Watkins above was considered successful because it increased student attendance. There is no explicit explanation of how this achieves greater social justice, but the inference is that the students were more engaged and would have better opportunities due to the increased attendance. However, in general other archaeologists are fairly silent on how the impact of engagement in archaeology can be robustly assessed in terms of social justice. I have argued that if an oppressive educational experience stifles creativity then an empowering one will promote creativity. Thus, I expected empowering archaeological education programmes to be associated with a significant overall increase in pupils' creativity. However, as mentioned above, none of these measures can address the question effectively in a short term study and therefore, longitudinal studies are needed.

Thus, this study usefully adds to the canon about archaeological education and offers clear pathways for further research. Longitudinal studies to address the ideas of social justice and empowerment may be difficult to implement, but the use of technology and the examination of approaches I initially termed 'arms-length' archaeology may be successfully united. Using opportunities provided by Web 2.0 technology whereby

experiences can be personalised may also mitigate some of the issues regarding time constraints; follow up exercises and further data collection could be easily built in to interaction of this nature. Therefore, what this study does is highlight the need for further research and provides interesting initial insights into the theoretical basis for archaeological education. Additionally, the limitations of this study provide a platform for further research.

7.6 Conclusion

Archaeological education programmes are defined by the influence of archaeological theories and also influenced by a range of progressive educational theories. Characteristics associated with constructivism and social constructivism, e.g. free exploration and active questioning seem to have been particularly effective in providing both an educationally valuable and enjoyable experience for pupils. Additionally archaeological education may have the potential to individually empower pupils demonstrated by the positive impact archaeological education had on many pupils' creativity. Although this is not a universal and inherent characteristic and how this individual empowerment may translate into furthering the aims of social justice is uncertain without further long term studies. In practical terms there tends to be a focus on content driven approaches, opportunities for free exploration and experience. Pupils were able to reflect on their learning, but there were no mechanisms observed for how this could be translated into future action or learning. This suggests that archaeological education is very much viewed as a subject which teaches pupils about the past rather than developing critical thinking about contemporary and future issues.

Teachers seemed to value the broader learning that occurs outside of the classroom. Thus archaeological educators should be aware of the National Curriculum and its requirements, but work in parallel to it, not replicate it. It is more important that the programmes provide engaging experiences for pupils rather than being closely linked to the curriculum; although it may be useful to develop programmes which reflect broad curriculum themes. Additionally, one of the biggest strengths that archaeological educators have is that they are not teachers and do not work in schools: they should embrace and celebrate that difference. This might be a particular advantage for archaeological education when the new curriculum is adopted.

There is a difference between archaeological education programmes which are developed or delivered by archaeologists and those which are delegated to education specialists. Archaeologists should consider this carefully and think about how much they value educational engagement. If archaeologists are serious about disseminating their messages to a wider public then they ought to engage in archaeological education directly. This broadly relates to the idea of education **about** archaeology. However, there is an alternative model for engagement. In terms of archaeological education this can be described as learning **through** archaeology. This may be more difficult to achieve and there were no clear examples of this were observed from programmes observed through the case studies.

Archaeological education in its current form as revealed by this research does have a value for pupils and their teachers but does not seem to represent something particularly unique in terms of learning outside the

classroom. The results here do not necessarily indicate that archaeological education provides a more valuable learning experience than other outside the classroom learning (e.g. arts education). Perhaps this is unimportant as long as a good learning experience is provided. However, if archaeologists want to continue to spread their messages and if they are serious about using archaeology to pursue social justice and address inequalities then they should start to engage more fully with the ideas presented in this thesis and to develop programmes which do make the most of archaeology's unique features (i.e. focus on large time spans and using knowledge of the past to consider solutions to the problems of the present and future). Thus, archaeological education could have a greater value for archaeology as a discipline if it made the most of archaeology's unique features.

These findings, based on the research documented in Chapter 6, have been situated within a practical, theoretical and political context and this contextualises archaeological education within archaeology (and particularly archaeological engagement) and education. Developing this contextual understanding has helped to clarify what archaeology education is and to identify not only what is unique about it, but what it shares with other related disciplines. I maintain that it is important to distinguish archaeological education in this way so that it can be researched as an entity in its own right with an understanding of barriers and opportunities which are specific to its formal education context and are not shared with related disciplines such as community archaeology or indigenous archaeology. The educational context for archaeological education may be shared with museum education, and although there is some overlap in terms of subject matter, archaeological

evidence and archaeological practice is fundamentally different to the curation and interpretation of collections which form the basis of the work of museums. Thus, archaeological education is specific and distinct and further research to it in its own right needs to occur. However, as I have argued, archaeological educators often fail to distinguish their programmes sufficiently from other outdoor learning endeavours and therefore, there is significant potential to develop archaeological education.

This thesis offers a new perspective for understanding archaeological education which is based upon an analysis of a range of archaeological education programmes in terms of their theoretical basis. Ultimately, what this research indicates is that archaeological education can be deconstructed in terms of a range of different theories and in some cases the theories applied can be matched with particular approaches (e.g. a focus on using artefacts and processual archaeology), but the correlation between theory and practice is not always clear cut: for example, the tour activities observed could be deconstructed in terms of very different theories. Furthermore, the interrelation of different theories means that it is not a simple task to equate value for pupils with the use of particular theories. However, the framework for analysis developed here can be used again with other programmes to develop ideas about the relationship between theory, practice and value further. In short this research has explored a range of issues and themes related to the Research Questions and in doing so has presented a range of ideas, but has also raised new questions for further study.

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