

Experimental Archaeology: an ethnography of its perceived value and impact in archaeological research

Submitted by Jodi Reeves Flores to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Archaeology, September 2012.

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Abstract

... like all good experiments, they have raised as many questions as they have answered. (Odell & Cowan 1987, 457)

Archaeologists rely on a variety of methods to study and interpret the past, one of which is experimental archaeology; this involves the replication of artefacts or past processes in order to test falsifiable hypotheses or to gather data systematically. This thesis presents examples of perceptions concerning experimental archaeology and its history, its validity, and how it is (or should be) by gathering data through interviews, surveys, participant observation of experiments and conferences, and by gathering ideas expressed in published works, particularly those that are 'about' experimental archaeology and that deal with its role in academic archaeology. A trend emerges in which experimental archaeology is viewed by those that practice it as being sidelined in academic research.

These beliefs and statements are then compared to data gathered on publication rates; a chronology of experimental archaeology is given, and differing beliefs are compared and contrasted. The goal is to identify how experimental archaeology is being perceived, how this is affected by how it is presented, and how changes in its presentation can help increase its acceptance amongst archaeologists. A highly critical approach has been taken in the hope of combining empirical observation with qualitative data; the aim being to provide a holistic study of experimental archaeology that draws primarily from how it is practised in UK and the US, but is supplemented by information from continental Europe.

The main areas that affect how it is perceived are its relations to experiential archaeology and non-academic institutions and individuals. A final look at the role of the method in academic archaeology shows that it is integrated into research on a broad scale, but rarely discussed in depth by researchers that do not practise the method. Experimental archaeology is a method that can have unique implications in research, particularly because of its relation to experiential archaeology. This and the other issues that affect how it is perceived are addressed.

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Definitions

Actualistic – often used to describe experimental archaeology, along with 'replicative' and 'imitative'. Refers to the testing of hypotheses by using 'authentic materials and in a range of environmental conditions that aim to reflect more accurately "real life" or "actualistic" scenarios' (Outram 2008, p.2). Can also be used in reference to actualistic studies, which can apply to experimental archaeology as well as ethnoarchaeology (Hurcombe 2007, p.56). Described by Saraydar (2008, p.3) as studies 'in which the relationships between behavior and potentially observable material traces of the behavior are carefully examined'.

Experiential archaeology – an attempt to access or gain knowledge about past human experiences and processes by replicating or imitating them. This can include experimental archaeology, when addressing a hypothesis and/or using controlled circumstances. It also includes learning about an archaeological relevant craft skill, constructs of ancient buildings, re-enactment, role playing, etc.

Experimental archaeology – a form of experiential archaeology, and a scientific methodology employed in archaeological research. This involves the replication of artefacts or past processes in order to test falsifiable hypotheses or to gather data systematically.

Imitative – often used to describe experimental archaeology, along with 'actualistic' and 'replicative'. The term used by Ascher in the first known article on experimental archaeology (Ascher 1961, p.793).

Replicative – often used to describe experimental archaeology, along with 'actualistic' and 'imitative'.

Abbreviations

AOAM – archaeological open-air museum

BEA – *Bulletin of Experimental Archaeology*

BPT – *Bulletin of Primitive Technology*

EA – Experimental archaeology

EAC – Experimental Archaeology Conference

EAA – European Association of Archaeologists

EXARC – the ICOM Affiliated Organisation representing archaeological open-air museums and experimental archaeology.

ICOM – International Council of Museums

JAS – *Journal of Archaeological Science*

PPS – the Proceedings of the Prehistoric Society

RE-Arc – Reconstructive and Experimental Archaeology Conference

SAA – Society for American Archaeology

SHES – School of Humanities and Environmental Sciences

SPT – Society of Primitive Technology

TAG – Theoretical Archaeology Group

WAC – World Archaeological Congress

PART ONE

Chapter 1 looks at the impetus behind the research, including the context for the initiation of the project and the aims of the thesis, as well as a discussion of the definition of experimental archaeology. Chapter 2 discusses the history of experimental archaeology from the fifteenth century to the twentieth century. This chapter pulls from primary and secondary literary sources. Chapter 3 continues to present the history of experimental archaeology in the twentieth and twenty-first centuries using primary and secondary literary sources, as well as data gathered during through the journal surveys and interviews discussed in Chapters 5 and 6 (Part 2). A condensed version of this history as discussed here was originally published as *Creating a History of Experimental Archaeology* (Reeves Flores 2011). Chapter 4 presents the research framework employed.

Chapter One: Introduction to Research

The term 'experiment' appears in a number of archaeological contexts. Generally it is in connection with either field or analytic methods. In both categories it most often means a trial; a test undertaken for the purpose of evaluating a new method. (Ascher 1961, p.793)

Reconstructing the past is an intricate task for archaeologists, who rely on a multitude of methods such as excavation, analysis of artefacts, the use of archives and historical texts, and developing analogies from multiple sources. Archaeology is, and often has been, filled with an experimental air. In the field, archaeologists have experimented with different excavation and recording practices, introducing new technology as it becomes available. In the laboratory, people experiment with different methods, techniques and materials; sometimes they replicate an archaeological item or process under controlled conditions.

One method available to archaeologists is experimental archaeology; this involves the replication of artefacts or past processes in order to test falsifiable hypotheses or to gather data systematically:

Another category of experiments entails operations in which matter is shaped, or matter is shaped and used, in a manner simulative of the past. These experiments, which I call imitative experiments, differ significantly from all of the above. The aim of imitative experiments is testing beliefs about past cultural behavior. If archaeology is taken to be the study of past cultural behavior, the imitative experiment is the keystone of experimental archaeology. (Ascher 1961, p.793)

According to the history of archaeology, this approach can be traced back to the antiquarianism and archaeology of the eighteenth and nineteenth centuries (Coles 1979, Chapter 1; Forrest 2008, p.62-5). As we have come to understand it, for the past few centuries people have been drawn to the use of actualistic, imitative, and replicative experiments for a variety of reasons. Often researchers encounter questions that cannot otherwise be answered; they are fascinated by primitive or ancient crafts and are seeking to challenge common conceptions of the past or simply have an interest in the role of specific artefacts or processes.

Just as there are many reasons why researchers may employ experimental archaeology, there are also many different ways in which people who use replicative experimentation decide to present themselves and their work to the wider archaeological community. Many define themselves as

'experimental archaeologists' or label their work as 'experimental archaeology' while others employ the methodology, but do not label themselves or see their work as distinct from other forms of archaeological research.

How experimental archaeology is presented to the wider archaeological community affects how it is valued and how its impact on archaeological research is perceived. Different factors affect the perception of experimental archaeology. These include who uses experimental archaeology, to what sorts of research experiments are applied, and how experiments are written up and where they are published (or not published). Experiments can be presented in line with scientific conventions, but also along the lines of more 'romantic' approaches, which often idealise the past.

This thesis records and analyses the circumstances in which experimental archaeology is conceptualised as a methodology and the narratives that have been constructed by archaeologists regarding the subject. Commonly held beliefs and stories about experimental archaeology and its history, its validity, and how it is (or should be) practised have been identified by gathering data through interviews, questionnaire, participant observation of experiments and conferences, and by gathering ideas expressed in published works, particularly those that are 'about' experimental archaeology. These beliefs and statements are then compared to data gathered through empirical observation and literature. The goal is to identify how experimental archaeology is being perceived, how this is affected by how it is presented, and how changes in its presentation can help increase its acceptance amongst other archaeologists.

A highly critical approach has been taken in the hope of combining empirical observation with qualitative data, the aim being a holistic study of experimental archaeology that draws primarily from how it is practised in Britain and the United States, but is supplemented by information from continental Europe.

In addition to evaluating the status of experimental archaeology and how it is conceptualised, this thesis aims to provide important information that will be of practical interest to researchers who are interested in replicative/actualistic experimentation. These include case studies (both historical and current) and information on where experiments are published and to what extent. It is my hope that this study will help to promote the method further while acting as an example of how ethnographies of academic practice can help to identify influences on research development, practice, and presentation.

Because the research strategy employed here is based on critically analysing the beliefs and stories relating to experimental archaeology, and attempts to place these in their wider context, it is appropriate to outline how I came to use experimental archaeology and became interested in studying the nature of the methodology. Such an exploration is relevant because '[n]ot only the personal history of ethnographers but also the disciplinary and broader socio-cultural circumstances under which they work have a profound effect on which topics and peoples are selected for study...' (Davies 2008, p.5).

The following narrative acts as an introduction to this thesis and traces how I became a member of the experimental archaeology community. Most importantly, the narrative identifies some of the catalysts of this current research and places the project in its own social context. Such narratives are becoming more common in qualitative research strategies. They help to place the research in context, and the writing of a narrative requires the researcher to reflect actively on their position. (For a similar approach see Etherington 2004).

Personal Research Narrative

I began using experimental methods in my archaeological research out of necessity and an interest in the craft skills involved with weaving. As a sophomore at university, I studied Anthropology. The four-field approach to anthropology, which is popular in North American academic institutions, combines cultural anthropology, linguistics, physical anthropology, and archaeology, but to graduate, I still needed an additional and complementary minor subject.¹ I settled on studio art because it would include basic drawing skills (useful in archaeological field work) as well as introduce me to a basic understanding of material artefacts, such as metals, ceramics, and fibres. It happened to be fibres that caught my interest as the subject included a focus on weaving.

I already knew of the ephemeral nature of textiles, and that (in comparison to stone, ceramics, and bone) they are rarely preserved in in the average archaeological deposit, leading to comparably less archaeological research into practices associated with them.² After both practical engagement with the material and an exploration of the literature regarding Greek warp-weighted looms, I decided to

¹ Many universities in the United States require students to study both a 'major', or primary subject, and a 'minor', or secondary subject.

² The exception would be in area with environments that allow for a high level of preservation.

build and experiment with my own loom for my undergraduate thesis. This was my first self-led, informal exploration of replicative experimentation in archaeology. It was only later that I discovered that elsewhere formal courses were taught on the method of experimental archaeology. This eventually led me to take the Experimental Archaeology MA course at the University of Exeter. My experience there raised a variety of questions concerning how replicative/actualistic experimentation was conceived and viewed within the discipline. These questions were particularly shaped by early interaction with other experimental archaeologists who were, at this point, keen to strengthen the role of experimental methods in archaeology.

Becoming a member of the group of people associated with experimental archaeology raised further questions that were influenced by my background in anthropology and my developing interest in the ethnology of archaeological practice. Through reading papers on the subject and attending conferences, I found that people often expressed concerns regarding the way experimental archaeology is presented and the extent to which the archaeological discipline accepts the method. There is a perception that a widely held image of experimental archaeology as a fringe discipline has led to a misunderstanding and possible rejection of evidence gathered through actualistic experiments.

While this concern is not universally held by all practitioners or archaeologists, it was prominent enough to have become a major topic of discussion at several of the conference sessions on experimental archaeology I first researched, such as the Experimental Archaeology Conference at Exeter in 2007 (Cunningham et al. 2008b), the Experimental Archaeology Conference at Edinburgh in 2008, and a session at the Theoretical Archaeology Group Annual Meeting (TAG) in Southampton in 2008 (Millson 2011). In formally conducting research on the presentation and perception of experimental archaeology, I found that feelings of isolation from the wider community were a major preoccupation, with some people expressing frustration with the misunderstandings or indifference they receive from other 'types' of archaeologists. This issue was first experienced at the Experimental Archaeology Conference at Edinburgh, 2008. While portions of the audience expressed a concern with similar issues, just as many other members of the audience commented that they had not experienced such difficulties (see also reviews of the conference by Paardekooper (2009a)).

These experiences led to the development of the primary goal of this thesis: To assess how experimental archaeology is presented, perceived, and accepted. These issues of presentation and

perception are active at multiple levels and are affected by a host of variables. As observers and practitioners have become more aware of these issues, some have sought to identify and define the reasons why experimental archaeology is, or is not, accepted in certain instances. For example, Carolyn Forrest (2008b) has explored how experimental archaeology's early links to amateur archaeologists may have influenced how it is accepted by the archaeological discipline. However, considering how diverse the application of experimental archaeology as a method is, it is difficult to pinpoint issues of acceptance/rejection to just one aspect.

Even the definition of experimental archaeology is wide ranging, and what experimental archaeology encompasses is often debated. The following section introduces the reader to some of the conceptions of experimental archaeology and how it is delineated from other methods for developing comparative archaeological data. This also highlights some of the central themes and questions that I have developed through the research process.

Defining Experimental Archaeology

Those whose definition of 'experiment' is derived from the physical sciences may note with some dismay that not all of the studies presented here were laboratory oriented; in many, not all relevant variables were rigorously controlled. They may point out that no laws were derived, and no proofs demonstrated. But we would define 'experiment' in the social sciences, which include anthropology and its subdiscipline archaeology, simply as a systematic approach to the explanation of data. Operationally, this definition encompasses tests of hypotheses, replication of activities, duplication of conditions, construction of explanatory models, manipulation of methodological variables, and simulation of data-based observations. (Ingersoll et al. 1977, p.ix)

Experimental archaeology is often conceptualised as a method or subfield of archaeology. There have been journals and bulletins dedicated to the topic, conferences that focus on it, and groups of individuals that support it. The process of defining experimental archaeology is influenced by this context, and it is also partially dependent on the point of view of the person asking the question, the person answering the question, and the context in which it is constructed. An answer to the question 'What is experimental archaeology?' has a multitude of relations to past statements, ideas, and differing contexts.

Because there are so many possible answers to that question, it is perhaps helpful to discuss first what experimental archaeology is *not* supposed to be:

At the outset, it is a fundamental tenet that experiment has absolutely nothing to do with the exercises of 'living in the past', 'dressing in period costume', 're-enactment of past events' or, indeed, the teaching of well understood techniques—which may well have been originally established by the experimental process—like, for example, lithic technology, pottery manufacture or laying mosaics. The former are at best theatre, at worst the satisfaction of character deficiencies; the latter are simple skills which, should they need to be acquired, require learning. It is extremely unfortunate that these activities have become generally subsumed under the overall title of experimental archaeology since their inclusion militates against the real value of experiment and its acceptance professionally. Labelling an activity like shaving with a flint flake or even a Roman bronze razor an experiment rather than exploration is clearly absurd, it advances our knowledge not one iota and serves generally to increase our prejudices about history and prehistory. (Reynolds 1999, p.156)

This description of what experimental archaeology is *not*, by Peter Reynolds, founder of Butser Ancient Farm (UK), may seem polemic at best and unduly harsh at worst. After all, accusing a part of your potential readership of having a character deficiency is not a likely strategy for receiving a positive response. However, as previously mentioned, our conceptions and definitions are often shaped by external circumstances, and Reynolds's description highlights prominent issues with the definitions of experimental archaeology that continue to be important. One issue is that activities that can be described as re-enactment are not experimental archaeology. To understand why, we need to look at what constitutes an experiment.

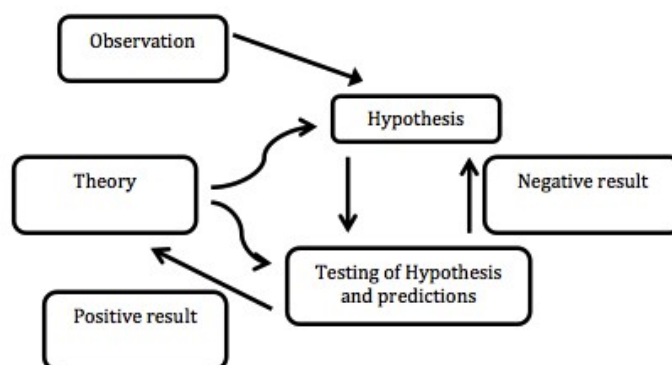


Figure 1: A diagram illustrating the scientific method

Experiment is part the scientific method (Figure 1) which includes systematic observation, and partly the formulation, testing, and modification of hypotheses. A hypothesis is a proposed explanation and should be falsifiable (Popper 2008).

An imitative archaeological experiment, then, should have a hypothesis based on observation that is then tested in an experiment. It is also worth noting that there are viable parts of experimental archaeology that are more 'discovery oriented', putting an emphasis on the observation portion of

the scientific method as opposed to the testing. Still, this observation normally takes place under constructed conditions. While there is not a specific hypothesis being tested, there is a group of questions or aims.

Firstly, more 'experiential' activities, such as the re-enacting referred to by Reynolds, often are not well enough documented to fall under the category of being conducted for reasons of discovery, yet activities such as these are still conflated with experimental archaeology. However, it is worth noting that there are forms of experiential archaeology that can be applicable to archaeological research (see Part 3).

Secondly, teaching an archaeologically relevant skill, such as flintknapping or weaving, is not experimental archaeology for the same reasons that re-enactment is not. However, that this is an important factor in preparing to conduct a well-designed experiment.

The third major factor from the Reynolds quotation has to do with professional acceptance. Professional acceptance by other archaeologists is perhaps at the core of Reynolds's frustration and is an issue that is still discussed by experimental archaeology participants. Alan Outram (2008), of the University of Exeter, in his introduction to the *World Archaeology* volume on experimental archaeology, concurs with Reynolds's ideas on the effects of conflating experiment and experience. Outram adds to the idea the view that an association with experiential and re-enactment activities has a negative impact on how experimental archaeology is accepted:

It is perhaps unfortunate that the boundaries between experimental archaeology (a research tool), experiences and demonstrations (educational and presentational tools) and re-enactment activities (a recreational pursuit) have become blurred in the minds of many. In some cases, one fears that this has coloured academic perception of a valuable approach to research. Perhaps this is why Reynolds put forward such a strong rejection of anything not truly experimental. (Outram 2008, p.3)

This concern with how experimental archaeology is perceived and accepted has been voiced in the public sphere, and this is further illustrated by responses to an online questionnaire conducted as part of research into this issue (Appendix 1).

Despite there being some issues with the thoughts behind these statements, they highlight activities that should not, perhaps, be regarded as experimental archaeology. The activities described by Reynolds and Outram are not experimental archaeology, but they do have a vital role to play, especially in the historical development of experimental archaeology. John Coles, in his 1979

publication *Experimental Archaeology*, reminds us of this:

A definition of the subject will be suggested later in this chapter, but if we accept that any honest effort to understand ancient artefacts by actually working with them represents experimental archaeology, then the earliest work was long underway by 1850. (Coles 1979, p.11-12)

In looking at what experimental archaeology is not, some key themes that surround the development of experiments and their presentation and acceptance have been highlighted. However, we are still left with the following question: If re-constructions, re-enactments, and skill acquisition are not experimental archaeology, then what is?

The first known use of the phrase referred to different forms of experimentation in archaeology in an article in *American Anthropologist* by Robert Ascher (1961), from Cornell University (see also Forrest 2008b). Ascher discussed some different forms of experimentation in experimental archaeology, including methodological experiments and experiments to establish the human or natural origin of artefacts. However, he chose to focus on what he referred to as 'imitative' experiments (Ascher 1961, p.793).

Another publication from the United States, edited by Daniel Ingersoll, John Yellen and William MacDonald, added to Ascher's definition, which focused on the imitative aspect:

In the past, the term 'experimental archaeology' has generally referred to imitative or replicative studies in archaeology (Ascher 1961). We would expand its use to include not only replicative studies ... but also tests of method and technique and theoretical principles relating them.... We would also include studies of the processes of site formation and deterioration... and studies of the relationship between material and nonmaterial culture in societies functioning at present.... **Experimental archaeology then, explicitly attempts to apply experimental methods in the areas of data collection, description, interpretations, and explanation.** Every possible attempt is made to define and control as many relevant variables as possible within the framework of archaeological data and its inherent problems. **Experimental archaeology, in other words, seeks to test, evaluate, and explicate method, technique, assumptions, hypotheses, and theories at any and all levels of archaeological research.** The object of this approach is to define and control as many variables as possible in any given research situation.(Ingersoll et al. 1977, p.xii emphasis added)

However, they also repeated the concept that experiment is prevalent in other forms in archaeology as well:

In archaeology there are four distinct categories of experiment: controlled replication of recovered artifacts or known activities; testing the validity of methodological assumptions by applying them to known data or known results; "contextual"; and those dealing with ethnographic data.(Ingersoll et al. 1977, p.xii)

Peter Reynolds also discussed the different types of experiment in archaeology, listing five categories: scale constructions meant to test a building design and done using appropriate methods and materials; experiments that look at processes and functions, simulations of formation processes, eventuality trials which usually employ some of the previously listed approaches; and experiments in applying new archaeological techniques (Reynolds 1999, pp.158–62). Outram also summarised Reynolds's categories in 2008, but other than this, the term 'experimental archaeology' is not often used to describe experiments that are not imitative. This evolution of the term from being used to refer to experimentation in archaeology to referring to almost strictly imitative archaeological experiments is another interesting point that arises when looking at the different definitions of experimental archaeology.

The following descriptions may seem even more repetitive than the last several since they focus only on imitative experiments. However, they also act as an insight into important factors surrounding experimental archaeology. For example, John Coles once again reminds us of the historical context of experimentation:

The term experimental archaeology is a convenient way of describing the collection of facts, theories and fictions that has been assembled through a century of interest in the reconstruction and function of ancient remains. By definition the words suggest a trial, a test, a means of judging a theory or an idea, and this is exactly so; experimental archaeology provides a way, one way, of examining archaeological thoughts about human behaviour in the past. (Coles 1973, p.13)

This discussion has already shown that there has been a historical development in how experimental archaeology is contextualised—from being inclusive of all forms of archaeological experimentation, with a slight focus on imitative experiments, to experimental archaeology being thought of as almost exclusively imitative.

Readers of key works dating to when the term 'experimental archaeology' was first coming into common parlance (e.g. Coles 1973, 1979; Reynolds 1979) will clearly note that it relates only to certain types of activities. Coles states that the aim of experimental archaeology is to 'reproduce former conditions and circumstances' (1979: 1), and the same is echoed by Mathieu (2002: 1), who says it is designed to 'replicate past phenomena'. (Outram 2008, pp.1–2)

Experimental archaeology is a sub-field of archaeological research which employs a number of different methods, techniques, analyses, and approaches within the context of a controllable imitative experiment to replicate past phenomena (from objects to systems) in order to generate and test hypotheses to provide or enhance analogies for archaeological interpretation. (Mathieu 2002, p.1)

Experimental Archaeology may be defined as the creation of activities and contexts in which ideas about the past can be thought through in practical terms and tested. (Bell 2009, p.31)

However, it is the attempt to test hypotheses or answer groups of questions by reproducing in the present activities which took place in the past. Here, these attempts have been primarily referred to as imitative, but also as replicative or actualistic, a term that Outram favours (2008, p.2).

Outram is also helpful in differentiating between the role of lab-based experiments and those that are actualistic/imitative:

However, a gulf is left between such laboratory work and how such processes may have been achieved in the past, with a limited range of materials, technologies and a lesser control upon the environment. Experimental archaeology comes into its own at this point. What has been learned in the lab can now be taken further; hypotheses can be tested with authentic materials and in a range of environmental conditions that aim to reflect more accurately 'real life' or 'actualistic' scenarios. Such experiments investigate activities that might have happened in the past using the methods and materials that would actually have been available. This is not to say that all materials and methods need to be authentic in experimental archaeology, but certainly those pertinent to the hypothesis. (Outram 2008, p.2)

Analysis of just some of the definitions and descriptions available in print has already revealed some of the key issues that will be explored in this thesis:

- The relationship between experiential work and experimental archaeology;
- how experimental archaeology is segregated from other forms of experimentation in archaeology;
- and concerns over how it is viewed, to name just a few.

This has also shown that ideas about what experimental archaeology is can differ. Therefore, before going further, it will be helpful to set out some guidelines as to what sort of experimental archaeology this thesis will be dealing with.

This thesis will consider archaeological research that qualifies as experimental archaeology by meeting the following criteria:

- The research uses a method to falsify or verify a specific hypothesis or set of hypotheses (Hypothesis Testing) **and/or** gather information in a controlled way that addresses a set of questions (discovery) in a controlled, systematic fashion.
- The experimental methodology must partially imitate or attempt to replicate archaeological objects or artefacts or processes.
- The imitation/replication of objects and methods must be done so in an actualistic fashion if

it is important for establishing a viable, useful experiment.

Research Agenda

The original aims of this thesis were, first, to place the historical development of experimental archaeology in its wider context. While there have been some attempts at this recently (Bell 2009, Forrest 2008b, Reeves Flores 2011), there has not been a well-known, complete description of the history of experimental archaeology in English since Coles's 1979 book. Chapters 2 and 6 address this by supplying a current, if general, history of experimental archaeology.

The second aim was to study the social aspects of experimental archaeology using ethnological methods. Similar methods have been used to study archaeological field practices. In the process of conducting research, other, more specific, questions arose not only from observations, but also from the questions that other people interested in experimental archaeology were asking. These questions often dealt with how experimental archaeology was perceived by others in academic archaeology, its acceptance, and its impacts on archaeological research. As emphasised earlier, the way experimental archaeology is presented to the wider archaeological community can affect how it is understood, valued, and accepted.

In Chapter 4 the theoretical framework, which draws from critical realism and which is used to approach these issues of presentation and acceptance, is presented. Experimental archaeology is presented in different ways; thus, both qualitative and quantitative methods were employed to collect a varied amount of data. These methods and the resulting data are discussed in Chapters 4 and 5. The analysis from these data is presented in the third and last part of the thesis, along with a discussion of conclusions and a look at ways of promoting the use of experimentation in archaeological research.

There are almost as many definitions of concepts in anthropology as there are people interested in defining those concepts. The important thing to remember, however, is not what a definition is but rather how one uses it to facilitate understanding. We hope our definitions are precise enough to satisfy many, and loose enough to offend only a few. (Ingersoll et al. 1977, p.xv)

Chapter Two: The Early Roots of Experimental Archaeology from the 1400s to 1950s

The history of archaeology has been the focus of several volumes (for examples, see Daniel 1975, Piggott 1989, Kehoe 1998, Trigger 2006, Rowley-Conwy 2007). The 76th volume of *Antiquity* includes a 'Special section: Ancestral Archives: Explorations in the History of Archaeology', which highlights the important role historical studies of archaeology play. As Nathan Schlanger (2002, p.218) notes:

[T]he history of archaeology has been, however implicitly, a powerful tool for the foundation and (re)definition of the discipline, for the legitimization of its knowledge claims and authority, and for the inculcation among its members of accredited domains and norms of investigation.

These histories are essential in constructing the identity of research traditions, and experimental archaeology's history is no exception. Looking at the history of a discipline helps to form a holistic view; it also reminds us of forgotten ideas, discoveries, and methods. Histories of academic disciplines and methods can also highlight the influences they have had on our understanding of the world. Through this process, histories of archaeology can help to contribute to our understanding of both our past and our present (Wengrow 2003, p.134).

Our view of history can become warped over time. Laura Nadar has illustrated how new movements in anthropology can 'shake up the discipline and ... obliterate disciplinary memory' (Nadar 2001, p.613). It is possible for this to take place in archaeology, as well. The recognition of this 'forgetfulness' may be one of the reasons archaeologists have become so interested in their history over the past several decades. Despite the plethora of studies concerning the history of archaeology, few have focused on the history of experimental archaeology. By actively re-engaging with the history of experimental archaeology, we can identify the origins of many of our current practices, ideas, and beliefs concerning the methodology, and evaluate their historical impact.

Perhaps the most well known history of experimental archaeology is John Coles's *Experimental Archaeology* (Graham et al. 1972, Coles 1979). Before this, little English language literature on the subject was available, although there were at least two bibliographies on experimental archaeology (Graham et al. 1972, Hester & Heizer 1973).

Bibliographic Lists and Secondary Sources

A Bibliography of Replicative Experiments in Archaeology (Graham et al. 1972) and *Bibliography of Archaeology I: experiments, lithic technology and petrography* (Hester & Heizer 1973) are two reference lists of works that contain imitative experiments or that discuss their use. In the 1973 bibliography, the section 'Experiments and Replications' extends over 14 pages, and the references are divided into five major classes: 'general references on the subject of archaeological experiments', 'experiments to learn how things were made', 'experiments to learn how things were used', 'experiments in the intellectual aspects of culture', and 'experiments to illustrate archaeological situations and processes'. The other major headings are 'Lithic Technology' and 'Petrography in the Service of Archaeology'. While the bibliography does cover experiments in metallurgy and watercraft, along with other topics, the fact that experiments have been lumped together with stone-related topics indicates that, historically, there is a strong bond between lithic studies and experimental archaeology. While there is little contextual information, Hester and Heizer do note that two reasons why the bibliography is needed are the loss of sources for ethnographic analogy and the rise of 'new archaeology' (Hester & Heizer 1973, pp.3–4). It has been noted that this publication played an important role in bringing experiments from journals and reports together in one place (Saraydar 2008).

Today, there is an online bibliography of experimental archaeology available: the *Bibliography on Experimental Archaeology, Education and Archaeological Open-Air Museums* (<http://exarc.net/bibliography>) (Paardekooper 2011). The bibliography stores references on experimental archaeology as well as re-enactment, archaeological education, and archaeological open-air museums (AOAM). The database builds on several ongoing publications as well as other bibliographies and journals that are no longer in production. Roeland Paardekooper, a founding member of EXARC, has been the one to develop the bibliography over the past several years with the aim of collecting references for people interested in both experimental archaeology and archaeological open-air museums. The initial source for the online collection was a printed German bibliography titled *Bibliographie zur Experimentellen Archäologie*. In addition to this, Paardekooper has added references relevant to experimental archaeology and AOAM from other sources such as the *Archaeological Textiles Newsletter*, *Bulletin of Primitive Technology*, *Experimentelle Archäologie in Deutschland/in Europa*, *Bulletin voor Archeologische Experimenten*

en Educatie, and *EuroREA* (now *EXARC Journal*) as well as articles on ancient crafts, live interpretation, and cultural tourism. Thus far, the bibliography has been a personal effort on Paardekooper's part, and there have not been any explicit selection criteria. However, there are future plans to expand and unify the bibliography (ibid 2011).

In addition to these bibliographies, which supply information on primary sources, there are also several secondary works on the history of experimental archaeology. As stated previously, the most well known is *Experimental Archaeology* by John Coles (1979). *Experimental Archaeology* built on Coles's previous book on the topic *Archaeology by Experiment* (Coles 1973). In discussing the reasoning behind the two volumes, Coles (1979, p. viii) stated that:

Archaeology by Experiment, published in 1973, attempted a survey of the major studies as well as the establishment of some principles of behaviour for experimental archaeology; most of the latter had their origins in earlier pioneering work. The interest shown in the concept of experiment over the past five years, with many new and imaginative projects initiated, and wider circulation of published works in many languages, has prompted this new book.

Since it was first published, *Experimental Archaeology* has been reprinted several times, the most recent being in 2010. This new addition includes a preface from Roeland Paardekooper in which he discusses the historical importance of the book as well as developments in experimental archaeology since its original publication. Perhaps the primary reason the 1979 volume still plays an important role in experimental archaeology is the sheer breadth of what Coles covers, and that he is able to do so in a lucid fashion. *Experimental Archaeology* not only laid out the standard narrative for the history of experimental archaeology; it also described and reviewed many of the experiments done up until that date. As Paardekooper mentions in his introduction to the 2010 reprint, *Experimental Archaeology* was 'the first overview of its kind'(Paardekooper 2010, p.v).

To achieve such breadth, Coles was in contact with many people associated with experimental archaeology at the time, whom he acknowledged in his preface: Hans-Ole Hansen (Historical-Archaeological Research Centre, Lejre, Denmark); Peter Reynolds (Butser Ancient Farm project, England); R Horreus de Haas (Ijsselmeer Polder, the Netherlands); Richard Darrah (West Stow Anglo-Saxon Village, England) and Errett Callahan (Pamunkey Project, Virginia, USA) (Coles 1979, p.viii-ix).

In dedicating the first chapter to the history of experimental archaeology, Coles highlighted 'the pioneering souls who often worked alone or in competition with their fellow, questioning the

evidence and devising new approaches' (Coles 1979, p.viii). The following chapters of the book divide the experiments into categories that differ from those used by Hester and Heizer in *Bibliography of Archaeology I: Experiments, Lithic Technology and Petrography* (1973) and Graham, Heizer and Hester (1972). Instead of dividing the experiments by material, Coles instead focuses on social aspects (1979, p.viii):

The following chapters are, I hope, logical in progression, from voyages of discovery and colonization, and land transport, to the establishment of settled communities working the land and providing the first evidence for major building operations in many parts of the world. Primitive and sophisticated arts and crafts are then outlined, with basic inventions in stone, clay and metal described.

Coles's discussion of experimentation in archaeology places the discipline in relation to the scientific advancements that took place in the mid 1800s. This is the period normally credited with the beginning of archaeology. Two themes were important to the development of experimental archaeology during this time. The first was the interest that antiquarians and archaeologists had in how the items they were finding were produced and used. The second, as mentioned in Heizer and Hester (1973), was the chance to observe and gather information about the indigenous peoples that were coming into contact with explorers, missionaries, and colonists from Europe and the United States. Coles emphasizes the importance that this contact with native populations had in supplying information that could be used analogously to study extinct populations and technologies (Coles 1979, p.3–4). While the 1800s most likely saw the 'true' birth of replicative experimentation and archaeology, some work had been done before this. Coles discusses some research that was not strictly experiment, or even archaeology, but which played an important role in the development of both, which took place before the nineteenth century (*ibid*, p.11–12).

Coles then moves fluidly from the history of experimental archaeology to the topic of the methodology itself. An initial organization for many would be to define a subject fully and then go into its history—as, for example, has been done here—yet Coles decides to provide a brief definition of the method and then move into its history before coming back to further description and definition. The result is that the reader has a greater concept of what experimental archaeology has been, and its developmental context, before being asked to embark on a critical evaluation of the method and what it could be (Coles 1979, p.32). Coles cites Ascher's statement that '[t]he aim of imitative experiments is testing beliefs about past cultural behaviour' (Ascher 1961, p.793 in Coles 1973, p.32). Coles's definition of experimental archaeology will be described in more depth later in this chapter, when discussing the historical importance of the book.

In *Replicating the Past*, Stephen C. Saraydar takes a different approach to the history of experimental archaeology. Saraydar limits himself to the twentieth and twenty-first centuries, and first discusses the major theoretical paradigms of that time, namely, culture history, processual archaeology, and post-processual archaeology. While this serves to show how imitative experiments may or may not have had a place in research within these different frameworks, very little is specifically mentioned within each discussion about the explicit role of experimental archaeology (Saraydar 2008, pp.4–11). More examples or illustrations of support for or criticisms of experimental archaeology would have made this section more relevant. Still, it is a useful aid in understanding how these different research frameworks may have affected the use of experimental archaeology.

Experimental Archaeology and *Creating a History of Experimental Archaeology* are the only general histories of experimental archaeology available in English that attempt to go into any real depth. More commonly, the history of experimental archaeology is briefly reflected on in the background sections of books and articles that focus on another topic of experimental archaeology. Saraydar's brief discussion of the history of experimental archaeology in *Replicating the Past* is an example of this, as is the introduction to *Experimentation and Interpretation*, in which Dana Millson also supplies a much shorter overview of the history of experimental archaeology (Millson 2011, pp.1–3). Some other titles that mention the history of archaeology, often in a short and concise fashion, are *The Constructed Past: Experimental Archaeology, Education and the Public* (Stone & Planel 1999) and *Experimental Archaeology: changing science agendas and perceptual perspectives* (Bell 2009). However, just as many other titles do not include a history of the methodology, including *Experimental Archaeology* (Ingersoll et al. 1977), *Experimental Archaeology: Replicating Past Objects, Behaviors, and Processes* (Mathieu 2002), *Designing Experimental Research in Archaeology* (Ferguson 2010) and *Experiencing Archaeology by Experiment* (Cunningham et al. 2008a).

In addition to general histories of experimental archaeology, there are also histories that focus on specific subjects within experimental archaeology. One is Johnson's *A History of Flint-Knapping Experimentation, 1838–1976 [and Comments and Reply]*, which, as the title suggests, focuses on experiments done with knapping stone. In this article, Johnson endeavours to describe all the flintknapping experiments that had been published up to 1976, a monumental feat. The chronology reviewed is divided into decades, and Johnson identifies many of the publications from that time,

highlighting any general trends. For example, from before 1879, Johnson identifies the first researcher 'to use his own knapping experience to help explain prehistory' as Sven Nilsson (Johnson et al. 1978, p.337). The trends she notes are very general, usually concerning what the focus of experiments are, whether more work is being done in Europe or North America and how much experimental work is being done (Johnson et al. 1978).

Johnson concludes by trying to establish two major issues affecting the development of experimental lithic studies. Johnson states that one reason why development has often been 'two steps forward, one step back' may be because there was a communications gap between archaeological researchers and those that actually practise flintknapping:

When academic archaeologists did learn the kinetic skills of knapping, their sense of accomplishment tended to go to their heads and to blind them to the possibility that anyone could ever have learned such a marvelous thing before. (Johnson et al. 1978, pp.358–9)

Now that gap is closing; there are more academics that know the basics of flintknapping and more communication between academics and craftspeople (Johnson et al. 1978, p.359).

Johnson's review of experimental lithic studies was also submitted to reviewers, and the responses that were received, along with Johnson's response to the reviews, were published along with the original article. Some of the commentators, such as Jeffery A. Behm, Thomas R. Hester and Francis P. McManamon (to name a few), wished that more information had been included or that Johnson had gone into more depth in her analysis. As Conran Hay highlights, it would have been helpful if Johnson had pointed out how experimental flintknapping has helped shed light on more general archaeological goals, as well as placing experimentation in a wider theoretical context (Johnson et al. 1978, p.361). Perhaps a middle point between Saraydar, who focuses primarily on the historical, theoretical context, and Johnson's descriptive listing of experiments would have been more beneficial.

While *A History of Flint-Knapping Experimentation* focuses on the history of a specific type of material and how people have experimented with it, Carolyn Forrest's *The Nature of Scientific Experimentation in Archaeology: Experimental Archaeology from the Nineteenth to the mid Twentieth Century* (2008b) focuses on two hypotheses:

First, as an approach experimental archaeology is seen as a recent development with shallow roots in the discipline. Second, the lay status of the amateur expert and public performance of experimental archaeology seems to have diminished its credibility as

either academic or professional. (Forrest 2008b, p.62)

If this is true, then that is the answer to why experimental archaeology and those that practise it often feel as though they are on the sidelines of the wider archaeological community. However, does Forrest have the evidence to support this claim? Forrest makes the statement that experimentation has been a part of archaeology since its inception:

It is a common belief that experimental archaeology is a modern development within archaeology. However, with examples of imitative experiments appearing in articles throughout the nineteenth century it is clear that experimental archaeology is as old as archaeology itself. (Forrest 2008b, p.61)

Forrest also notes that while Ascher (1961) may have been the first to use the term 'experimental archaeology', imitative experiments have been taking place for several centuries (Forrest 2008b, p.62). She then goes on to mention several experiments that took place in the nineteenth and early twentieth century, as well as the rise of historical and archaeological societies. She notes that, while in the 1960s there was a rise in professional experimental archaeology, there was also a rise in the number of amateur enthusiasts who were often integrated into archaeological research (Forrest 2008b, pp.63–65). Forrest also mentions Butser Ancient Farm and Lejre Historical-Archaeological Centre as, assumedly professional, places for experimental archaeology, she does not mention specific examples of the many 'amateur' enthusiasts. Still, Forrest states that this shunning of amateurs in archaeology may have pushed experiment to the other extreme, making those that practise it take a more scientific approach:

It may also have been this distinction between 'professional' and 'amateur' participation that has caused experimental archaeology to remain on the periphery of mainstream archaeology. This dichotomy could be one of the reasons that archaeological experimentation has felt the need to take on a more scientific approach to become an accepted method of learning. (Forrest 2008b, p.62)

Considering the fact that experimentation is part of the scientific method, it is initially hard to comprehend what Forrest means when she says that archaeological experimentation needs to be more scientific. However, there can be a difference between employing a scientific method, such as experimentation, and employing a scientific façade, and this may be what is being referred to here.

The aim of setting experimental archaeology within the wider context of archaeology is admirable and something similar to what is being done here. However, setting out with the assumption that experimental archaeology is not accepted due to its links with public education and amateur archaeologists colours the work. Forrest offers no hard examples of when experimental archaeology

has or has not been accepted because of these reasons. After all, archaeology and many other sciences started off as amateur pursuits, as Forrest herself mentions (Forrest 2008b, pp.64–65). While archaeology has interesting stereotypes linked to it, so do other academic subjects and academia as a whole. Additionally, archaeology is perhaps one of the few academic subjects that are most accepting of amateurs, from involving volunteers in fieldwork to the normal trend of 'amateur' archaeologists taking degrees or certifications and becoming professional archaeologists well known in the field. *The Nature of Scientific Experimentation in Archaeology* expands on the narrative that the wider archaeological community does not accept experimental archaeology. However, it does so without shedding light on why this may be the case, and instead offers an opinion without any observations to support it.

Michael Schiffer (2009) also supplies a contextual history of experimental archaeology, but instead of focusing on a specific hypothesis as did Forrest, in *Ethnoarchaeology, experimental archaeology and the 'American School'*, the focus is on the use of imitative experiments in the United States in the late nineteenth century. American School refers to federal, archaeological researchers in Washington, D.C. who employed scientific inferences from experimental archaeology, as well as from ethnoarchaeology, ethnography, and ethnohistory. The school emerged in the US National Museum and the Bureau of American Ethnology, both of which eventually became part of the Smithsonian Institution. While histories of anthropology acknowledge the importance of the American School, their epistemological contribution is often overlooked in regards to archaeology, especially in pushing the use of archaeological inference. Schiffer hypothesises that this might be because there is more of a focus on other aspects of the American School, such as paying little attention to chronology and having evolutionary leanings (Schiffer 2009, p.8).

Besides giving a general background to the topic, Schiffer also focuses on the impact of individuals. This includes Joseph Henry as well as work done by Charles Rau, Frank Hamilton Cushing, William H. Holmes, and Otis T. Mason. The article also looks at the possible reasons as to why the culture historical programme, which followed the American School, lacked an emphasis on actualistic research during the early twentieth century, a trend that has also been noted by Coles (Coles 1979, pp.26–7). Schiffer succeeds in drawing attention to how experimental archaeology was used as part of archaeological inference and was a major part of American archaeology. There could have been more specific examples showing how the American School's use of experimental archaeology was ignored, although granted this is more difficult than showing any negative feelings towards them, such as Forrest's claim that there is a negative view of experimental archaeology.

Schiffer concludes by highlighting the wide range of experimental archaeology that is being practised today, noting that 'actualist strategies are sanctioned by—and employed by practitioners in—most theoretical programs today' (Schiffer 2009, p.22). This is in opposition to the claims of Forrest and others. However, it is important to remember that Schiffer is more familiar with archaeology in North America, and that the view of experimental archaeology may be different in the United Kingdom and Europe.

Other Historical Sources

The rest of Chapter 2 presents a summary of the early history that draws primarily from the literature described in the previously. It extends from the fifteenth century to the early twentieth. Chapter 3 continues this history up to 2010 using literary sources as well as the individual interviews presented in Chapter 5 and the journal survey presented in Chapter 6.

An Early History of Experimental Archaeology

The developmental categorization used here is influenced by general historical movements in science, philosophy, and society, the trends identified by historians of archaeology, such as Daniels (1975), Trigger (2006) and Willey and Sabloff (1974), and by the trends in experimental archaeology that have been noted by John Coles (1979), Michael Schiffer (2009), and the other works previously discussed.

The social and ideological groundwork for archaeological research was laid during the fifteenth to eighteenth centuries. This period covers the rise of worldwide exploration, the Renaissance, the Protestant Reformation, the Scientific Revolution and the Enlightenment. It ends with the publication of one of the earliest archaeological experiments, conducted in the United Kingdom in the 1790s.

The second period, which begins roughly at the end of the eighteenth century and continues to the early middle of the nineteenth century, documents the formative period of archaeology as a discipline. While imitative experiments begin to be performed more often, it is not until the next period when a research tradition that implicitly accepts imitative experiments is developed.

During this period, archaeology flourishes along with the natural sciences. Some experimentation is practised during this period although it seems primarily linked with prehistory. This continues until the early twentieth century, when the development of culture historical archaeology, as well as other events, affects the role of experiment and the progress of archaeology as a whole.

It is not until after the Second World War that imitative experiment again becomes a popular research method. The increase in explicit theory leads to the discussion and formulation of 'experimental archaeology' in the 1960s. The development of post-processualism in the 1980s eventually leads to the intense debate we have today about the role of experimental archaeology in exploring the past, and its place in the wider archaeological community. This part of the history of experimental archaeology is discussed in Chapter 3.

While few histories have been written on experimental archaeology, those available reveal the surprising amount of archaeological research that has included imitative experiments, especially since the mid-nineteenth century. The following history aims to provide a general view of the development and importance of the methodology over time. It is beyond the scope of this chapter to include an in-depth analysis of all the experimentation that has taken place. This would also be repetitive, since much of the work done before the 1970s is discussed by both Coles (1979) and Johnson (1978). However, the history supplied here does include historical examples from each period, placing their work in a historical and social context. It also includes a view of the work that has been done since the 1970s in more depth than has been done previously. Most importantly, this includes a listing of some of the works that have discussed the role of experimentation in archaeological research.

1492 to 1800

As previously mentioned, it is generally accepted that archaeology, as a scientific discipline, started in the 1800s (Forrest 2008b, p.61; Piggott 1989, p.8), yet even as far back as the fifteenth century, the term 'antiquarian' began to be used to refer to people who studied ancient material remains, and by the sixteenth century, there was a proto-Society of Antiquaries active in London for a short time (Piggott 1989, pp.13–4). The social and ideological groundwork for empirical experiments in archaeology was established before the nineteenth century. The developments that laid that framework include the rise of worldwide exploration and colonisation by people from Europe, the Renaissance, the Protestant Reformation, the Scientific Revolution, and the Enlightenment. It ends

with the publications of one of the earliest 'archaeological experiments', conducted in the United Kingdom in the 1790s by the chemist George Pearson (Pearson 1796; Coles 1979, pp.12–14).

The fifteenth century saw several important voyages; for example, Bartolomeu Dias rounded the Cape of Good Hope in 1488, and in 1489, Vasco de Gama set off for Calicut (now Kozhikode) (Reilly 2010, p.547). Perhaps the most famous, however, took place in 1492, when Christopher Columbus set off to establish a western route from Europe to Asia, only to find what is now the Caribbean Islands and, later, South America. Columbus's voyages facilitated contact between Europe and the Americas, fostering maritime trade, industry, religious missions, and genocide. It also opened up a new world to European naturalists and historians.

Increased travel and the navigation of new trade routes fostered the mercantilism that shaped Europe during this period. Along with the plants, animals, and minerals, travellers also brought back items from the cultures and people they encountered. This created an interest in unfamiliar technologies, especially in stone tools from the Americas. The increase in knowledge of American cultures that used stone tools led to the realisation that similar stone objects being found all over Europe were human-made (Trigger 2006, p.82; Coles 1979, pp.3–5; Shapin 1996, p.19).

The initial explorations of the New World took place during the European Renaissance. The Renaissance refers to a humanist movement centred on the revival of art and literature that began in Italy; it is most often associated with the powerful Italian city-states of the time, such as Florence. These city-states needed to justify both their existence and independence. A major source of inspiration for creating identity was found in classical remains (Trigger 2006, pp.52–4). The Renaissance, which spread to much of the rest of Europe in the sixteenth century, was very much influenced by classical art and philosophy. This stemmed from an interest in both literary and material remains of the ancient Romans and Greeks (Piggott 1989, p.13).

Another humanist-oriented movement was the Protestant Reformation. The beginning of the sixteenth century saw the growth of rebellion against the state of the Catholic Church. The starting point is considered to be 1517, when Martin Luther began his protest against the corruption of the Church. The Reformation wished to return to simplicity without papal supremacy (Johnston 1991). Before the Protestant Reformation, people did have an interest in historical artefacts, but, with the exception of the interest in classical remains in Italy, people in much of Europe were interested in such artefacts only as relics whose value lay in their religious significance. Institutions as well as

individuals would often hoard such relics, not because of their historical significance, but because they were linked to religious protection and salvation (ibid).

The Protestant Reformation, as it was experienced in England, had a great effect on how people interacted with ancient material remains. The separation of the Church of England from Rome under Henry VIII began in 1529 and was completed in 1536. Between 1535 and 1540, the monasteries in England were dissolved, and a large amount of church property was ultimately passed on to the nobility and gentry (ibid). This destruction of the Catholic monasteries affected the landscapes that people had known for generations. Many realised that a great amount of information, both in the form of text and materials, was being lost in the process. This aroused an interest in the local past among the rising middle class who, while not overly wealthy, still had some leisure time to explore and describe local surroundings and the antiquities available locally (Trigger 2006, pp.84–5; Reeves Flores 2011).

While changes took place in philosophy, art, and religion via the Renaissance and later the Reformation, the sciences also went through a sort of revolution which included far-reaching changes that would make experimentation in archaeology possible. One important development was the work of Francis Bacon, who pioneered the experimental method. While the Renaissance and the Reformation created a healthy environment for the further development of humanism and interest in the material past, the Scientific Revolution symbolised the intellectual changes in the practice and philosophy of science. The primary maxims of seventeenth century modernism formed the basis for this new empirical science (Shapin 1996, p.69):

- 'rely not on the testimony of humans but on the testimony of nature'
- 'favour things over words as sources of knowledge'
- 'prefer the evidence of your own eyes and your own reason to what others tell you'

Another important change often associated with the Scientific Revolution as well as with humanism was the development of a positive view of progress and technological advancement and of humanity's ability to gain knowledge about the world. Aristotelian philosophy, one of the dominant ways of thinking, dictated that natural creations were far superior to human ones. This idea remained dominant through the Renaissance. However, the Scientific Revolution aided in dispelling this idea, as did the Enlightenment, which continued the humanism developed during the Renaissance. During the Enlightenment, which began in the late seventeenth century, philosophers

began to move towards a new type of natural history that included 'the products of human artifice—and a more optimistic attitude toward the potential of human artifice' (Shapin 1996, p.31). One primary component of the Enlightenment was the development of a positive view of progress and technological advancement. This was combined with a more hopeful view of humanity's and the individual's place in the world that had also been perpetuated by the Scientific Revolution and the Reformation (Shapin 1996, p.19). These ideas would be essential in fostering a worldview in which the interest in technological advancement would flourish. However, what was needed for experimental archaeology to flourish was an interest in *past* technological achievements as well as present and future advancements.

The Scientific Revolution established the importance of empiricism and experimentation in the sciences, while the Renaissance and the Enlightenment fostered a more humanist approach. This meant that people became more interested in the human past and also began to develop a more optimistic view of humanity. In addition to these new mind-sets, worldwide commerce and colonization brought Europeans into contact with people, items, and ideas that were different from their own. This influenced how historians and antiquarians approached the human past. It was a time of exploration and change, but not everyone was content with this. The accelerated change taking place led to an increase in conservative thought and a yearning for past ways of life. This Romanticism was coupled with the conservative backlash against cultural-evolutionary thought and had a great influence on the development of antiquarianism and archaeology (Trigger 2006, pp.110–13).

By the nineteenth century, two methods for studying the past had become popular (Rowley-Conwy 2007, pp.5–13). The first, ancient history, focused on primarily on ancient textual sources; the other was ethnology, which focused on using comparative philology and anatomy to trace human history. However, there was a third approach that would not fully come into its own until the middle of the nineteenth century and which would be known as the Three Age System (ibid 2007, p.6). The Three Age System would focus much more on material culture than on the techniques employed in ancient history or ethnology, and it is discussed in the following section.

In addition to major trends in the arts, philosophy, and science, there were also specific discoveries that helped to develop the study of the past—both human and natural—into a scientific discipline as well as the establishment of scientific and antiquarian societies that encouraged an interest in the emerging natural and human sciences. One example of the discoveries made at the time was the

work done by Nicolaus Steno and Georg Wilhelm Leibniz, which established that fossils were, in fact, the remains of once living creatures, leading to the realisation that the Earth was ancient and changed over time (Cohen 1996 in Rowley-Conwy 2007, p.5). The establishment of connections between objects and the history of the world, and potentially of humanity, influenced how people began to approach the past. In terms of societies that encouraged such innovation, the Royal Society was founded in 1660 in England, although a group of natural philosophers had already begun meeting in the mid-1640s to discuss the promotion of knowledge of the natural world through observation and experiment (Society of Antiquaries of London n.d.). In 1751, the Society of Antiquaries of London received its royal charter, although it had had much earlier beginnings in a group that James I had previously disbanded (ibid). The Society of Antiquaries of Scotland was founded in 1780 and received a royal charter in 1783 (Society of Antiquaries of Scotland n.d.).

There was some early 'experimentation' on bronze instruments that were uncovered throughout the later part of this period in Britain and Denmark. One musical instrument found in Ireland in 1698 was tested, and it produced a sound that was considered low and dull at the time (Coles 1979, p.13). A contemporaneous bronze instrument, called a *lurer*, was found in Denmark in moorland at Brudevaelte, Zealand in 1797. It is thought that Christian Jurgensen Thomsen, creator of the Three Age System, was the first to experiment with this *lurer* (Coles 1979, p. 13). The *lurer* and other bronze instruments continued to be a focal point for experiment throughout the nineteenth and early twentieth century.

Most experimentation with ancient musical instruments had to do with testing their musical capacity. It seems that no musical instruments were replicated or reproduced to test issues regarding production and technology. The first, wavering, step towards this area of study was taken by doctor and chemist George Pearson in 1796. Pearson was a member of the Royal Society of London and a contemporary of the well-known explorer and advocate of scientific research, Sir Joseph Banks, also at the Royal Society.

In 1794, before the experiments in question, Banks received a sample of steel from India called *wootz*. Interested in its manufacture and composition, Banks decided to have James Stodart, a maker of surgical instruments, use the steel to forge an instrument and a chemist study the composition of the material. This chemist happened to be George Pearson. After his examination, Pearson hypothesized that the steel had been formed without passing through a wrought iron stage and that the hardness of the steel was caused by the introduction of oxygen (Coley 2003).

It seems that Banks was satisfied with Pearson's results because afterwards he asked him to study the composition of several artefacts that he had in his possession. The result of this study was the aforementioned report *Observations on Some Ancient Arms and Utensils: With Experiments to Determine Their Composition* (Pearson 1796). His report, while somewhat dry in and of itself, is interesting for what it says about archaeological studies of the time, and because of its inclusion of experimentation, part of which has a replicative leaning. It therefore provides a good case study for looking at the initial practice of replicative experiment, outside of any initial development of any sort of 'tradition' or paradigm based on the methodology. The report is effectively split into two different sections, one in which he analyses the 'copper' artefacts in Banks's collection and a second in which he looks at the steel artefacts. The first, on the copper artefacts, is the section that has the replicative portion of the experiments.

Pearson, although a chemist and medical doctor by trade, appears to have been well versed in ancient history and the different contexts associated with ancient materials. His report on the different instruments, and primarily the bronze ones which we are interested in, often mentions the context in which they were found. For example, he mentions that the workmen who originally found many of the instruments under study often found them at the bottom of rivers, well below the mud, on hard, compacted soil. Pearson even goes so far as to consider this context as being caused by those who originally deposited the items, and says that 'our Saxon ancestors kept the river in much better condition than their successors have subsequently done' (Pearson 1796, p.396). This is the closest that Pearson seems to come to discussing the actual archaeological context in which artefacts were found, other than simply mentioning the town or river name in which they were first located. Pearson also makes a series of historical observations about the bronze instruments under study. Pooling information from several Roman sources, Pearson concludes that a horn, or trumpet, pulled from the river Witham in 1768 was a *lituus*, or military musical instrument of the Romans. He also refers to a theory that comes from the more 'judicious antiquaries' that such instruments were indeed adopted by the Romans from those of 'the barbarous nations' (Pearson 1796, p.397).

Pearson goes on to discuss how the instrument appears to have been made and joined, observing the artefact as opposed to trying to recreate its manufacturing techniques (Pearson 1796, p.398). He then goes on to discuss his observations concerning the external properties of the artefacts. Part of studying the exterior of the artefacts consisted of rubbing off the oxidized surface and polishing the items. They were then compared in terms of colour and how well they polished up (Pearson 1796,

p.404). However, he also realized that such superficial research would not tell him the exact composition and properties of the items. In order really to compare the materials of each of the artefacts to one another, they needed to be in the same form. To achieve this, Pearson melted down the artefacts and then recast them all in similar moulds (Pearson 1796, p.405). This is interesting considering that only several pages previous to describing this process, he had mentioned how rare some of the artefacts such as the *lituus* were. Pearson gives the following justification for melting down the artefacts (1796, p.405):

An experienced observer can judge tolerably well concerning many metals, and metallic compositions, by inspecting fractured surfaces; but to judge accurately from these appearances, the metals to be compared with one another should be in the same state of aggregation.

Pearson then went on to test the material properties and chemical composition of the now melted artefacts (1796, pp.405–414). He came up with a variety of results that indicated that the artefacts were a mixture of copper and tin. He further showed interest in the proportion of the copper/tin alloy.

It is this interest that led Pearson to conduct one of the first 'replicative' experiments with archaeological materials. Pearson went on to create a 'control group' of sorts—different mixtures of copper and tin—that he could then compare to the ingots from the original artefacts, his goal being to determine the composition by recreating it (1796, pp.414–424). It is in this attempt to recreate the chemical proportions of the metal of the artefacts that Pearson inadvertently becomes one of the very first experimental archaeologists to attempt to replicate part of an archaeological process. Pearson reaches the conclusion he seemed to have expected from his experiments, that is, that the artefacts were principally composed of a copper and tin alloy. He also makes a link between the composition of the artefacts and possible reasons why they were manufactured in that way. This shows that he was indeed interested in answering wider archaeological questions, even though he focused strongly on the chemical side of things (Pearson 1796, pp.431–438).

While Pearson did attempt to replicate the content of an ancient metal, and addressed issues regarding technology and manufacture, there are some problematic aspects to the work. Pearson's claim that he had to melt down the metal to test its consistency properly has no basis. The material would have had the same qualities in its original form, and it appears that, in trying to make the example as similar in physical form as possible, Pearson was sticking to a false model of science. While the report was published in a well-known venue, the *Philosophical Transactions of the Royal*

Society of London, there does not seem to be much impact from this study. The report is mentioned in Coles (1979), but it is not listed in the bibliography by Hester and Heizer (1973). An internet search reveals no other journal articles that cite Pearson's experimental work (search conducted September 2011 using Google). However, the bibliographies, such as Hester and Heizer and *Public Archaeology*, have no English references to experimentation before 1800.

This may indicate that the earliest of tests and trials of experimentation in archaeology have had only a minimal impact on the current state of experimental archaeology, and even their impact on research at the time may have been negligible. However, the development of a more humanistic, positive view of the past, interaction with societies in the new world, and their material culture, and the establishment of the use of empirical experimentation in the sciences, set the foundation for the development of archaeology and experimentation of archaeology that would take place in the next century.

1800s

Nineteenth-century archaeologists shook the bottom out of human history, replacing short chronologies of biblical origin with longer time depth. A bold physical and cultural anthropology questioned thinking of inequalities as innate. Observations on other cultures made us realize that our own culture is unusual in world context. (Nadar 2001, p.610)

There was still a lack of experiments in the early part of the century; this may have been due to a lack of interest in human antiquity before the 'intellectual revolution' of the mid-nineteenth century (Trigger 2006, Chapter 2), which coincided with the traditional beginnings of archaeology. The dramatic increase in industry across Europe was coupled with the renewed belief in the positive effects of progress that had been brought about in the previous centuries. There was also an increased interest in the idea of cultural evolution. The building of new structures and the construction of roads also led to the discovery of archaeological remains at an impressive rate (Trigger 2006, pp.145–6, 215). Archaeologists continued to be interested in creating chronologies, and the discipline became more systematic and professional. Until the 1880s, archaeologists also continued to focus on cultural evolution (Trigger 2006, pp.207, 215).

There are two themes of the nineteenth century that are important to the development of experimental archaeology: researchers's interest in the technology of individual objects and the existence of ethnographic evidence on existing communities being encountered in many parts of the

world (Morlot 1861, p.4; Coles 1979, p.3). As shown earlier, the exploratory nature of Europe from the fifteenth century onwards brought a lot of new technology and information to researchers in Europe in the form of specimens and accounts by explorers. At the beginning of the nineteenth century, different organisations and individuals were collecting antiquities as well as gathering and organising all this information, and artefacts needed to be categorised in some way. In 1819, the National Collection in Copenhagen was opened with a chronological system for classifying artefacts based on the material from which they were composed; as mentioned previously, this came to be known as the Three Age System (Morlot 1861, pp.4–6; Coles 1979, p.3; Rowley-Conwy 2007).

As already mentioned, the evidence of living cultures using stone tools led to the idea that perhaps similar artefacts found in Europe had been human-made, and finds such as the bronze musical instruments discussed in the last section indicated that European peoples may also have used different materials at different points in time. The study of these tools developed into prehistoric archaeology in Europe. According to Trigger (2006, p.121), the development of prehistoric archaeology took place in two waves; the first began in Denmark with the development of the Three Age System, and the second developed 50 years later in England and France.

The reason for the delay in different areas of the development of the study of prehistory leads to another important theme of the nineteenth century. In the early part of the century, many antiquarians and archaeologists did not see the necessity of having a prehistory because there was no overriding concept of there being a deep human past (Morlot 1861, p.3). Work done by researchers such as Charles Lyell had popularised the concept of a deep geological timescale by the 1840s, but this had not yet been applied to the human past (Rowley-Conwy 2007, pp.3-5). However, it was soon applied to human history as well (Morlot 1861, p.3). The use of replicative experiments in studying archaeological remains is deeply tied to the development of prehistory. This can be seen in the early work of Scandinavian archaeologists, who developed an evolutionary approach to studying culture (Trigger 2006, p.164; Reeves Flores 2011).

Sven Nilsson, who was Professor of Zoology at the University of Lund, was interested in cultural evolution but focused primarily on the development of subsistence economies. For example, in *The Primitive Inhabitants of the Scandinavian North* (1838-1843), Nilsson described four stages of culture transition: hunting and fishing, pastoralism, agriculture, and civilization. Nilsson employed ethnographic evidence as well as replicative experiments (Nilsson & Lubbock 1868; Trigger 2006,

pp.129–30).

Below is one example of Nilsson's experience with ancient crafts was his experience with flintknapping (Nilsson & Lubbock 1868, p.6):

When more than forty years ago, I first began to collect, I found here and there stones which had evidently been fashioned by the hand of man for some special purpose, and which showed distinct traces of strokes or knocks against some other equally hard, but more brittle stone. Having from my earliest youth made a practice of chipping flintstones, and giving them any shape which I desired, I was able to recognize in these stone hammers the instruments by means of which the flint weapons had in ancient times been made.

In 1848, the Royal Danish Academy of Sciences developed an interdisciplinary commission to study shell middens, with one of the heads of the commission being J.J.A. Worsaae, a protégé of Thompson's. The reports published on the research conducted by the commission mentioned taphonomic experiments which had been undertaken in order to explain why more middle parts of the long bones of birds were present in comparison to other parts of their skeletons (Morlot 1861, pp.10–19). The only apparently domestic animal remains at the midden analysed belonged to a dog. One of the investigators, Mr Steenstrup, fed bones similar to the ones found on site to a group of dogs, and found that they left similar results to what was being found in the middens (Morlot 1861, p.19):

It was surprising not to find, among the exuvæ of birds any but the middle part of the long bones, the heads having been broken off very irregularly. Whist, numerically, the long bones form very nearly the fifth part of the sum total of the bones of a bird, they are in the Kjoekkenmoedding from twenty to twenty-five times more numerous than the other. Whence comes this singular preponderance of the long bones? It was thought at first that the ancients had consumed on the spot merely the limbs of the birds, reserving the carcasses for a stock of provisions at sea. This was rather far-fetched. Mr. Steenstrup bethought himself of keeping some dogs in confinement, and giving them for a certain time birds to eat. He then found that all that the dogs left were the same long bones, such as the Kjoekkenmoedding present. All the rest had been devoured. Some other carnivorous animal, such as the wolf or the fox, might, it is true, have done the same, although the wolf, for example, generally drags off his prey, and does not devour it on the spot.

This gives us a look at an early taphonomic experiment. Like the work by Pearson, Steenstrup attempted to replicate an item from the past to test a hypothesis. Unlike Pearson, Steenstrup did so without destroying archaeological evidence and incorporated the experiment within a wider archaeological study.

During this time, events in the United Kingdom were revolutionizing scientific thought. In 1859,

Charles Darwin published *On the Origin of Species*. While known by most for his work on biological evolution, Darwin also had an interest in archaeology and taphonomic processes. He looked at the impact of earthworms on taphonomic processes (*The Formation of Vegetable Mould Through the Action of Worms with Observation on their Habits*, published in 1881) and undertook small scale excavations on Roman villa sites and at Stonehenge (Ashbee et al. 1963, p.4). Unfortunately, Darwin's work does not seem to have had much impact on archaeologists until the twentieth century (ibid).

In the same year that *On the Origin of Species* came out, Joseph Prestwich and John Evans, whom we will discuss shortly, acted as witnesses to evidence found by Boucher de Perthes of an 'Old Stone Age' at his site in Northern France (Gamble & Kruszynski 2009). Due to such events, prehistory eventually began to be developed in Britain in the form of Palaeolithic archaeology, which was modelled primarily on the natural sciences (Trigger 2006, p.164). The term 'palaeolithic' was coined by archaeologist John Lubbock in 1865 in his book *Pre-historic Times* and means 'old age of stone'. Prehistoric studies in Europe, including Palaeolithic archaeology, also began to use replicative experiments to study ancient materials, particularly chipped stone tools.

After the events of 1859, Sir John Evans went on to be a prominent archaeologist and one that used experimental and experiential methods in his research. Evans publicly demonstrated both percussion and pressure flaking using antlers at a meeting of the International Congress of Prehistoric Archaeology in England in 1868. According to Johnson (1978, p.337), this was the first public demonstration of flintknapping in England. Evans's work with flintknapping helped influence and inform his archaeological research (Evans 1860, pp.289–290 and Evans 1897 in Johnson et al. 1978).

A wealth of experiment takes place during this period, as can be seen in Coles's (1979) discussion of the subject. The majority of it, however, seems to be limited to prehistoric studies. Between 1780 and 1860, archaeology in North America progressed through a phase similar to the antiquarian phase that England and Scandinavia went through in the sixteenth to the nineteenth centuries. Archaeologists in North America were interested in indigenous archaeology; however, their work was often dominated by racist views of indigenous populations and their technical capabilities (Trigger 2006, pp.158–61). Despite this, the level of research and the publication of research developed into a systematic study during the nineteenth century. Societies and groups, such as the American Antiquarian Society (begun in 1812 by Isaiah Thomas), provided a forum for the budding

North American archaeology community (Trigger 2006, p.161; Reeves Flores 2011; McCorison & Hench 2012). Early on in the development of archaeology in North America, there was little experimental work. Johnson (1978, p.338) attributes this to the fact that American archaeologists were able to observe indigenous technology in use and so did not have to replicate it. Towards the latter half of the century, however, researchers would begin to integrate experimental techniques into their research on a relatively wide scale. Perhaps the first research framework that actively utilized imitative and actualistic experiments was organized by the American School.

The American School incorporated actualistic evidence, which included ethnography and ethnohistory, as well as experimentation. While the members of the American School were all interested in the human past, not all held degrees in anthropology or archaeology (Schiffer 2009, p.8). This links to Forrest's argument that experiment is linked to amateur archaeologists and, because of this association, is not accepted historically. Most of these people were well accepted within this institutionalized setting and 'made use of replicative experiments and ethnographic observations' (Schiffer 2009, p.8).

The federal archaeologists associated with the American School developed a research program in which actualistic information was important but taken for granted. While ethnographic evidence was often cited in detail, information about experimentation was often lacking (Schiffer 2009, p.9). As we shall see when we look at the work of Frank Cushing, actualistic evidence and experience are often referred to, but only in the context of wider research, and are not described in much detail compared with many modern works or with the work of Pearson. This seems often to apply to work conducted in Britain as well.

While the achievements of prehistoric native populations of North America continued to be downplayed, or dismissed outright, some archaeologists used ethnographic data and early European records to study the production and use of prehistoric artefacts. One such example is Frank Cushing (1894), and another was J.D. McGuire, who in addition to Cushing, experimented in replicating copper disks that were associated with the Hopewell culture of Ohio. McGuire and Cushing used techniques available to indigenous populations to show that the disks were not a European technology (Reeves Flores 2011). Furthermore, Cushing was skilled in many traditional native technologies, no doubt in some part thanks to his time spent among the Zuni. Cushing took exception to this idea that the copper disks were of European invention and highlighted the point that indigenous Americans would have had the skill and expertise to produce such works of art

(Cushing 1894; Coles 1979, pp.23–5). He used experimentation to study prehistoric material remains and directly to question deeply held ideologies regarding the ingenuity of Native Americans.

In his introduction to his 1894 paper, Cushing illustrated how he used practical knowledge to refute other archaeologists' claims about the lack of artisan skill of Native American populations concerning to production on high quality metal artefacts (1894, pp.92–3). Cushing (1894) then went on to describe evidence from ethnography and excavation that indicated that Mound Builders could indeed have made the artefacts under question. He then referred to various experiments he conducted on the topic (1894, p.97):

In the simple hammering, grinding, embossing and cutting of native or nodular copper as suggested by the mound specimens in question. I have also made experiments, the partial history and results of which may properly be more fully recorded here as bearing upon the above-mentioned discussion....

From his experiments with different sorts of material, Cushing hypothesised that 'the simpler of the aboriginal arts in metal were at first influenced by more than one antecedent art, namely, not only by various methods of stone-working, but also of bark-working, skin-working, horn working, etc' (Cushing 1894, p.97). This is in addition to his hypothesis that ancient Native Americans would have been capable of producing fine art works in copper.

Cushing's discussion of the experiments he had conducted concerning metal work follows a more narrative style than is usually seen in modern, academic experimental archaeology reports. However, the descriptions are accompanied by diagrams to aid in illustrating the process (1894, pp.101–14). Cushing also refers to evidence of the style of the engravings that also indicate them to be of North American origin. He concludes with the importance of including experimental data in his research on the topic (1894, p.114):

Thus, some of the copper works may be as ancient as the fondest romanticist could wish, or on the contrary (and some of them probably are), as modern as the days of De Soto; but, whether ancient or recent, they are of Indian origin and neither Oriental, as some have claimed, nor European, as others have naturally been led to infer by the very high degree of workmanship they exhibit and by certain supposedly analogous art traits. I think it has been shown by the foregoing "experimental study" that the beauty and finish of the finest of these specimens might readily have been produced by the mound-builders.

This last decade of the nineteenth century in which Cushing and many of the other members of the American School wrote was a prolific time for experimentation. In terms of lithic experiment,

Johnson (1978, p.340) notes that the last decade was the most prolific and would remain so until the 1960s. In addition to this, she also found that the vast majority of the reports on lithic experiments being produced were from North American archaeologists. The only two articles that Johnson found that were not written by Americans both dealt with work by Evans (see Joly 1894 and Evans 1890 in Johnson et al. 1978). In addition to lithics, there were a great many works written on other subjects (see Heizer & Hester 1973).

Despite this wellspring of interest in experimentation, archaeological research interest eventually changed. Archaeologists became more interested in diffusion, and archaeological research began to focus more on culture histories (Trigger 2006, Chapter 6; Schiffer 2009; Reeves Flores 2011).

Early 1900s

This change in the archaeological research agenda was manifested in the culture history program. Both Coles (1979) and Schiffer (2009), who attribute it to this shift in archaeological thought, noted the decrease in experiment at the beginning. Johnson also noted that there were few experiments with lithics during the second decade of the twentieth century (Johnson 1978, p.346). Instead, the focus for the first half of the twentieth century was on establishing chronologies and looking at migration and settlement patterns. However, some imitative experiments were conducted to answer questions about the production and function of material culture.

In the US, this followed the American School but lacked an emphasis on actualistic research during the early twentieth century, a trend that was also noted by Coles (1979). This may have been because culture history asked completely different questions in archaeological research, including more of an emphasis on chronologies and the spatial relationships between cultures (i.e. migration) (Schiffer 2009, p.19-20).

Schiffer presents this shift in Kuhnian terms (see discussion on page 76). If cultural historians viewed both the research questions and the methodologies of the previous evolutionists as obsolete, they may have considered that 'evolutionary theory had fouled... everything that the Smithsonian researchers touched', including the need for using actualistic experiments and archaeological inferences based on these (Schiffer 2009, p.20). However, there may be another more straightforward reason. Many questions regarding 'primitive' technology had been addressed by this point, and therefore, culture historians may not have given these issues a high priority. Instead, their

interests simply lay elsewhere, especially with the increased interest in diffusionism. They would have begun to approach archaeological artefacts as 'traits for tracing the comings and goings of cultures' as opposed to the 'participants in past activities' (Schiffer, 2009 p.20). This may be why experiments were occasionally done in the early twentieth century, as for instance, when excavation revealed an artefact that was unknown. Schiffer notes that one cultural historian who used experimentation in research was Harold S. Colton (Schiffer 2009, pp.20–1). Colton not only did ethnographic studies of the Hopi; he also performed his own small ceramic experiments and recorded temperatures from a number of Hopi firings (Colton 1939).

Another example is the work of Haury, who looked at how prehistoric inhabitants of the American southwest could have possibly made stone beads less than 2 millimetres in diameter. As far as Haury knew, modern Pueblo did not make beads of this size and there were none in the Arizona State Museum at the time. So he researched methods described by a Smithsonian archaeologist, Walter Hugh, and conducted his own experiment, which included hafting a cactus spine into 'a notch in the end of a small stick', which was held in place with a cord (Haury 1931, p.86). He then drilled a hole by rotating the stick between his hands and adding water and sand. He concluded that this method might have been plausible (Schiffer 2009, p.20).

Meanwhile, in Europe, experiment was playing an important part in the debate over eoliths, chipped stone objects thought to be early prehistoric tools. It was thought that producers of early stone tools would not have followed as uniform procedures of manufacture as did later peoples. Johnson (1978, p.343) notes that in the 1910s, over half of the lithic experiments published were by British authors, and the majority of them were about the eolith debate. This debate focused on whether rudimentary stone artefacts that appeared to be flaked were of human or natural origin. Almost any stone with regular chipping and a relatively uniform shape may have been produced by humans. Hezzedine Warren developed an experimental method for testing whether normal geological processes could yield similar results to the so-called eoliths; he published extensively on the topic from the early part of the twentieth century onwards (Warren 1905). The results of his experiments and his claim that eoliths were manufactured by nature, were often criticised, and one of his strongest opponents was Moir. Their disagreements on the topic can be clearly seen in the dialogue that took place between Barnes and Moir and Warren in the 1923 volume of *Man* (Barnes & Moir 1923; Warren 1923). Johnson provides a concise description of this topic (1978, pp.343–345).

According to Coles, Warren's and Moir's eolith research marks the end of major projects employing

experimental techniques. While some English and American archaeologists employed some experimentation in the 20s and 30s, the use of experiment as a methodology would not become popular until Scandinavian archaeologists once again took it up in the 40s and 50s (Coles 1979, p.29; Schiffer 2009; Reeves Flores 2011).

Several developments took place during the early and middle of the twentieth century that no doubt affected archaeology and the use of experimentation. As mentioned before, there was that shift to a research paradigm that focused on diffusion and cultural histories. However, there were also two world wars and an economic depression. While in some ways these events increased the actual amount of archaeological excavation being done because of developments such as state sponsored projects, experimentation still seems to have remained in the background (Reeves Flores 2011).

Other developments affected the use of replicative experiments. For decades, replicative experiments were closely related to ethnography and ethnoarchaeology. By the 1900s, researchers had become even more aware of how native people and their traditional ways of life were being changed by western migration (Coles 1979, p.27). This affected archaeological experimentation in two ways: the ability to observe tools in use was greatly reduced; and anthropologists, no doubt recognising the damage, began recording information on cultural and social practices, instead of purely technological issues, before they became extinct (Reeves Flores 2011). After this lull, experimental archaeology begins to increase in popularity in the 1960s, initiating the current period of sustained use of imitative experimentation in archaeological research. The history of experimental archaeology from the 1940s to 2010 is discussed in the following chapter.

Chapter Three: Experimental Archaeology Today

Chapter 2 laid out the early history of experimental archaeology based on primary and secondary literary sources. While experiment had become part of individuals' research in both the US and the UK during the late 1800s and early 1900s, imitative and actualistic experiments seem to have become less popular as culture history became the dominant theoretical regime in archaeology. In addition to new technological and methodological developments after World War II, there was also a shift to develop an archaeology that was less empiricist and more focused on hypothesis testing, primarily championed by 'New Archaeologists'. From this point experimental archaeology would develop into the method it is today. The the careers of the interviewees presented in Chapter 5 span much of this period. John Coles's primary publications on experimental archaeology (for a condensed bibliography see Table 2) have already been discussed in-depth. Other interviewees, for example Bruce Bradley and Martin Bell, have been active in experimental archaeology for over three decades and have helped to teach a newer generation of experimental archaeologists, such as Metin Eren. Likewise, research into the publication rate of experimental archaeology (Chapter 6) in prominent archaeological journals also sheds light on the recent history of experimental archaeology. Therefore, this chapter draws on this original research, in addition to literary sources discussed in Chapter 2.

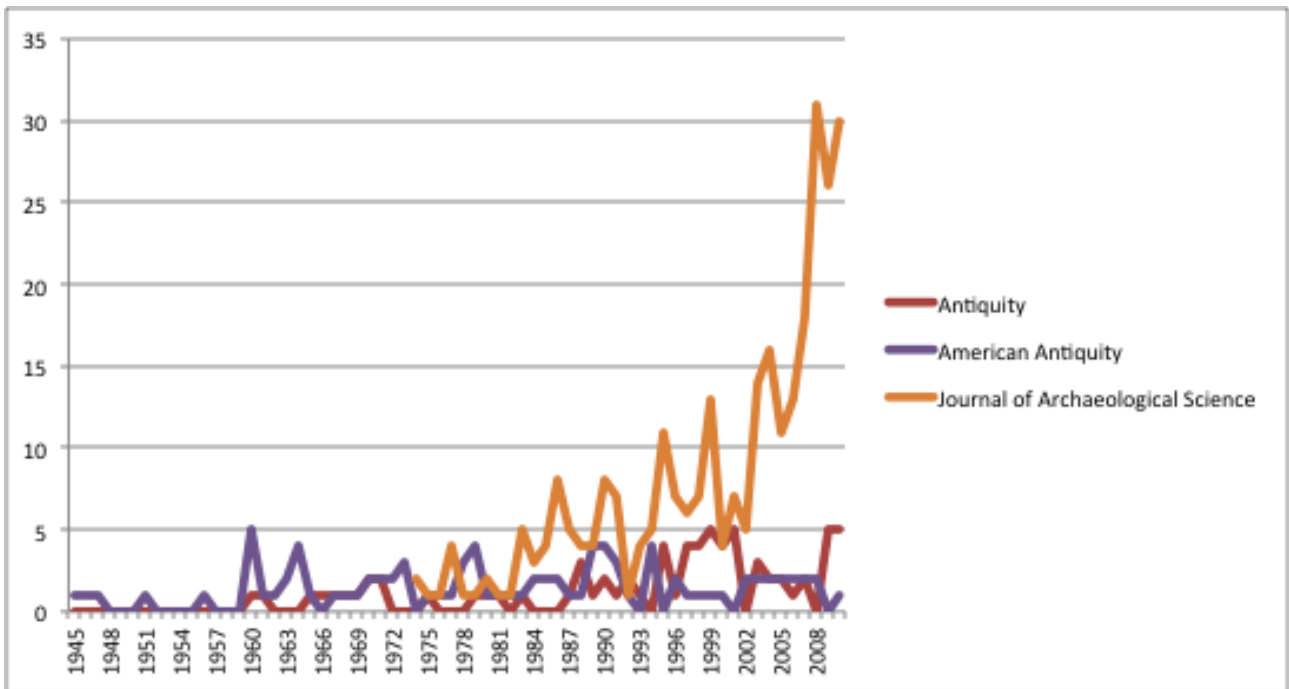


Figure 2: Results of journal survey: number of experimental archaeology articles per year in *Antiquity* (1945–2010), *American Antiquity* (1945–2010) and the *Journal of Archaeological Science* (1974–2010)

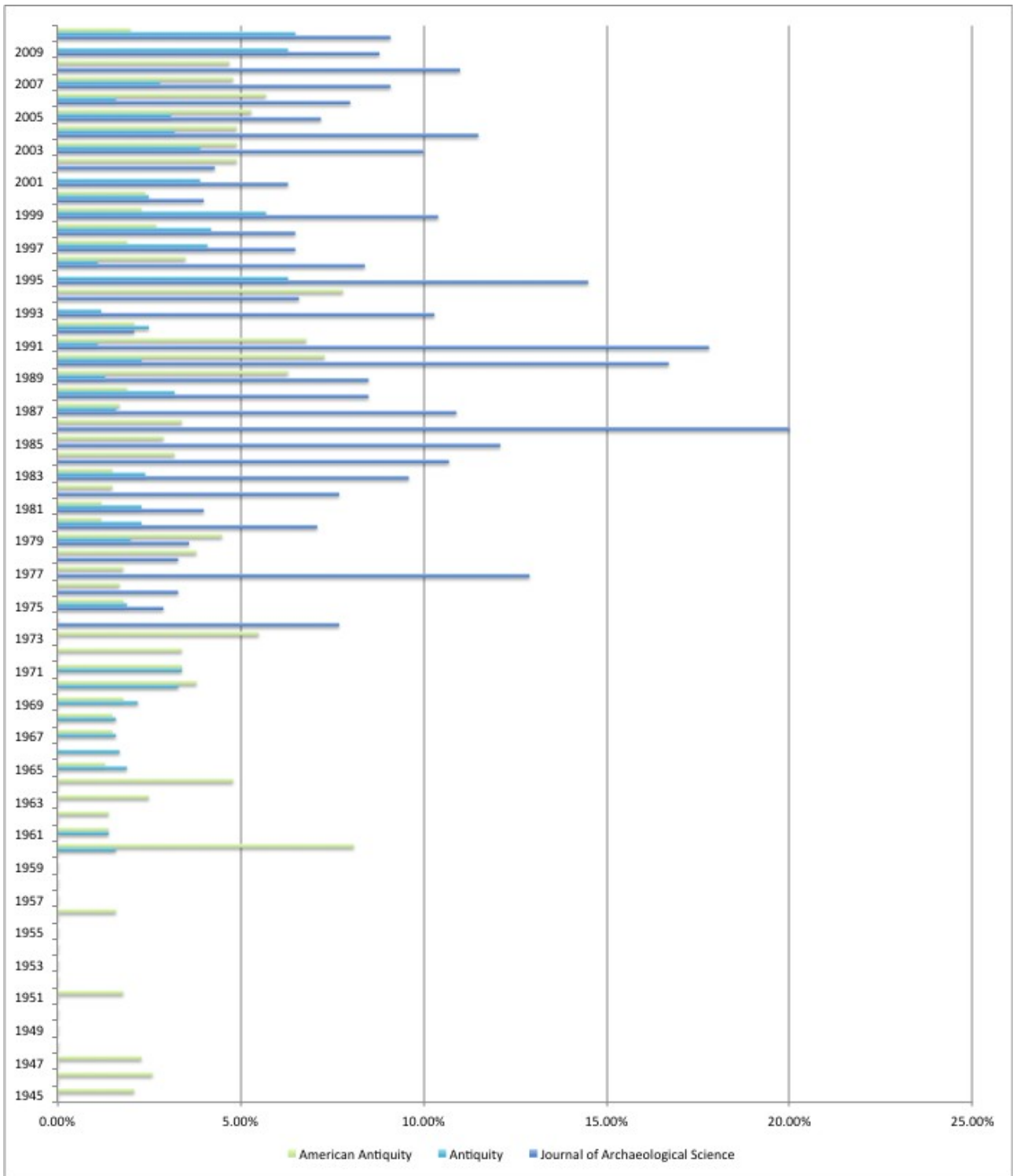


Figure 3: Results of journal survey: percentage of experimental archaeology articles published per year in *Antiquity* (1945–2010), *American Antiquity* (1945–2010) and the *Journal of Archaeological Science* (1974–2010)

1945 to 1959

After the Second World War, archaeology changed. In previous decades, there had been more of an emphasis on recording archaeological data thoroughly and objectively. Archaeologists now began to acknowledge the limits to what archaeological data could say about that past (Coles 1979, pp.30–31). There were also different questions that were being asked by newly emerging theoretical programs (Schiffer 2009). One such emerging theoretical framework was New Archaeology, or processual archaeology, which advocated focusing on what archaeological remains can reveal about human behaviour and the development of general theories instead of simply categorizing and recording archaeological remains.

The war also brought new technological advancements that could be applied to archaeological research. Clarke has said of this period that '[a] quantitative and qualitative technical and social revolution quietly transformed world archaeology in a series of almost imperceptible piecemeal changes' (Clarke 1973, p.8). These new technological advancements, such as C-14 dating (Arnold & Libby 1949), put more emphasis on the scientific aspects of archaeology. Computers also made it possible to store and analyse large amounts of archaeological data (Reeves Flores 2011, pp.38–39).

Experimental Archaeology Begins to Re-emerge

In terms of experimental archaeology in the 1950s, there was not much to be had in most areas of archaeology, and this has been described as a time of consolidation (Johnson et al. 1978, p.350). But there are some exceptions, and in the 1960s and 70s, the method would blossom. It was during this period that experimental archaeology began to come into its own once more and developed into an explicit methodology.

One of the earliest from this period, and perhaps the best known of experiments, was Thor Heyerdahl's voyage on the Kon-Tiki. Heyerdahl sailed from Peru to Polynesia to test the hypothesis that people can travel via boat from South America westward (Heyerdahl 1950). There was also interest in the production and use of lithic artefacts. Mewhinney drew on flintknapping experiments in his *Manual for Neanderthals* (Mewhinney 1957). At the same time, Semenov published *Prehistoric Technology* in 1957 in Russia and in 1964 in the UK (Semenov 1964); he established the process of use-wear analysis—a method which still often employs experimental archaeology to create reference material.

Only two of the journals surveyed go back to the 1950s, *Antiquity* and *American Antiquity* (Figure 2 and Figure 3). It is important to note that while early volumes of *American Antiquity* were published in four issues, there would be two issues of one volume in the autumn of one year and the next two in the spring of the following. The percentages below are calculated per year so that any possible chronological trends can be traced. The percentage is based on the number of articles and notes and comments so does not include book reviews or editorials. Percentages are rounded to the nearest tenth.

The first obvious trend is that there were no articles being published with imitative experimental elements in *Antiquity* during this period. A brief look at the *Editorial notes* from the late 1940s shows an interest in re-establishing archaeology after the war and furthering its development in the British colonies (Anon 1946, 1947). The number of articles varies, but is usually between four and ten, not including notes and reviews.

In *American Antiquity*, however, one article was published each year from 1945 to 1947, and two were published in the 1950s. The topics of these experiments include stone tools (Bixby 1945), agricultural implements (Fowler 1946), ceramics (Watson 1947) and arrow production (Cosner 1951, Cosner 1956). This shows that both articles from the 1950s were from one author, Aaron Cosner, and it is the one from 1951 that serves as a case study of experimental archaeology in Ascher's 1961 work. This shows that while there was some experimental work being published, it was not very much. The 60s, however, would see an increase in discussion of the method.

1960 to 1969

Experimental Archaeology Continues to Develop

Despite changes in theoretical frameworks early on in this period, there was still a focus on research questions that did not present much opportunity for experimentation:

At the time, early 1960s, there was little emphasis on the function of elements of material culture; typology was paramount, technology and purpose were not often or much pursued by researchers. There were notable exceptions, some amateur and some professional. (Coles Interview, Appendix 3)

However, there were several exceptions which helped to foster the overall development of experimental archaeology during this period.

Experimental Archaeology in the Field

One exception in the UK was the Experimental Earthworks Project, which began on the centenary of Darwin's publication of *The Origin of Species*. As mentioned previously in Chapter 2, in addition to studying evolution, Darwin also looked into taphonomic processes. The British Association for the Advancement of Science set up a research committee to investigate the taphonomy of archaeological structures through experimentation. The committee comprised Paul Ashbee, Richard Atkinson, Ian Cornwall, Geoffrey Dimbleby, Peter Jewell, V. Bruce Proudfoot, and P. M. White (Ashbee & Cornwall 1961, p.129). In the preface to a later report on the earthworks, the authors noted that '[t]he idea of field experiment was not entirely new in the archaeology of Britain in the late 1950s, but it was innovative to undertake such a long-term experiment on interdisciplinary lines...' (Bell et al. 1996, p.xxiv).

Initially, the experiment consisted of the construction of a ditch-and-bank earthwork in chalky soil; this was built at Overton Down, Wiltshire, England, and then left to the elements so that changes in its composition could be recorded. Materials were placed within the earthwork, such as cloth, wood, bone, and other materials of which archaeological remains often consist, to see what changes take place over time with these materials. The plan was then to excavate portions of the earthwork at intervals: 2, 4, 6, 16, 32, and 100 years (Ashbee et al. 1963, p. iii). In the initial publication on the project, it was described as 'an innovation that stems from a synthesis of ideas out of both archaeology and the natural sciences' (Ashbee et al. 1963, p.1). A second earthwork was eventually constructed in 1963 at Morden Bog, Wareham, Dorset (Fowler & Swanton 1996).

Returning to the earlier quotation by Coles, while the project did not necessarily focus on function, it did focus on taphonomy and is an early example of the use of experimentation in environmental archaeology. The leaders of the project noted that experimentation was being underutilized in archaeological research:

Experiment, particularly of the imitative type... has often been carried out to try and clarify hypotheses ... in archaeology, but it would be true to say that its potential has been scarcely touched. (Ashbee et al. 1963, p.12)

There were also field experiments in the construction of monuments by US researchers, one such being the work done in Mexico by Charles Erasmus. This work focused on issues of construction and the preparation of material instead of on taphonomic issues (Erasmus 1965).

In the 1960s, experimental archaeology and its use in lithic studies, which often deal with issues of

function, increased. In her concise history of experimentation in lithic studies, Johnson noted that before 1960, experimental flintknapping was not a main part of experimentation in archaeological research. However, since the 1960s, there has been an increasing amount of research published which uses the method, something that can be seen in both Hester and Heizer's bibliography and in Johnson's history (Johnson et al. 1978, p.351; Hester & Heizer 1973).

This is also illustrated by comparing the number of articles with imitative experiments being published in the two journals surveyed. Imitative experiments began to appear again in *Antiquity*, and the rate of publication also increased in *American Antiquity* (Figure 2 and Figure 3). While there was a steep increase and then a decrease, both the numbers and percentages appear to have been steady towards the end of the period.

During the 1960s, there was also an increase in literature that explicitly discussed method and theory in archaeology, with Binford's work being an example (Binford 1962, Binford & Binford 1968). There was also the development of literature specifically discussing the theoretical framework of imitative experimentation in archaeology and describing its use. This is an extremely important trend because it marks the point from which experiment moves from an implicit method to an explicit part of methodological frameworks.

Right after a noted increase in the publication of experimental archaeology, in 1961, one of the initial explicit works on imitative experiment, *Experimental Archaeology*, was written by the American archaeologist Robert Ascher. Forrest (2008) noted that Ascher's article appears to be the first use of the term, and an earlier use of the term in English has not yet been found. Ascher's *Experimental Archaeology* continues to be an influential article, having been cited over 70 times since it was published, according to Google citation statistics (Google 2012).

This period also saw the establishment of an influential experimental archaeology centre, which still operates today. The Historical-Archaeological Experimental Centre at Lejre was founded in the 1960s by Hans-Ole Hansen. Since its establishment in 1964, the Centre has influenced a number of prominent archaeologists interested in experimentation from the UK, including John Coles, and from the US, such as Errett Callahan (see Chapter 4).

This period is important because, as mentioned previously, it marks imitative experiment's shift from which being a method often integrated into research to an explicit part of methodological

frameworks. As we shall see, this set the groundwork for the sharp increase in the number of publications on the topic that took place in the 1970s.

1970 to 1979

Thanks to the new scientific developments and ideological trends established by New Archaeology and the pioneering works of experimental archaeologists, experimental archaeology was again being applied in research and being actively discussed. This increase during these two periods applied both to experimental archaeology and ethnoarchaeology, both of which were often employed in behavioural archaeology (Schiffer 2009, p. 21).

It is important to remember that while some archaeologists embraced the new technologies available for the survey, excavation and analysis of archaeological remains, there was some fear that this would lead to a dehumanization of archaeology (Neustupny 1971, Hawkes 1968). However, others pointed out that it was just as likely that after new ideas, techniques and methods had settled and had time to mature, archaeology would be better off in terms of being able to both analyse and present archaeological data (Isaac 1971, Clarke 1973).

While nowhere near as well publicised as some humanistic vs. scientific debates, there was at least one case where the conflict touched on experimental archaeology. Michael Ryder carried out a small-scale experiment to test whether it was possible to cook grain inside a paunch, that is, a portion of a sheep's stomach. While the experiment was conducted on only two paunches, Ryder did record relevant timings and temperatures of the experiments, including the effects of the addition of hot stones. He subsequently published a short note on this in *Antiquity* (Ryder 1969).

Shortly after, a critique of Ryder's Note was published by Ian Blake in the newspaper *The Irish Times*, which attacked what Blake thought to be the 'scientific' trappings of Ryder's work, as well as the fact that it was not repeated or recorded properly (Figure 4). Ryder was given the chance to respond to Blake's critique in *Antiquity* (Figure 5). Part of Blake's critique seems to have been simply antiscientific, such as the rejection of the use of the metric system as 'felicitous' (Blake 1969, Ryder 1970). However, his claim that the experiment should have been better recorded and replicated was correct. Still, it is important to remember that the original article in question had been published as a Note as opposed to a fully-fledged article in *Antiquity*; hence, it can be thought

of as a preliminary study and did not deserve such callous treatment.

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Figure 4: *Ian Blake's critique of Paunch Cooking (1969)*

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Figure 5: *Letter to Editor by Michael Ryder (1970)*

There is another possible reason for the increase in experimental archaeology in the mid-twentieth century: the continued and rapid reduction in indigenous populations and traditional craft skills. While both experimental archaeology and ethnoarchaeology could supply modern analogies for interpreting the past, this decrease in ethnographic possibilities may have led to this situation, described by Hester and Heizer in their bibliography of experimental archaeology:

Perhaps for the reason that the archaeologist is now essentially on his own in many situations where he must try to understand how prehistoric things were made and used, he is becoming increasingly aware that his own careful replications of flint implements, pottery, drilled stone objects, tree-felling with stone axes, constructing ancient house forms, and the like, may be better guides to understanding than the long used means of ethnographic analogy. (Hester & Heizer 1973, pp.3–4)

It was also realised that there was work to be done in recognising the possible 'scope, complexity and overall "value" ' (Saraydar & Shimada 1973, p.344) of experimental archaeology. The field experiments discussed earlier were, on the whole, isolated cases, and the majority of imitative experiments up until this point had been done by individual researchers who were interested in a specific type of artefact (Hester & Heizer 1973, p.3). To address this, what was needed was a more complex view of the role of experimental archaeology and a re-evaluation of the possible methods of application (Saraydar & Shimada 1973, p.349). Saraydar and Shimada also hypothesised that as archaeology continued to develop as a discipline and become more complex, so should the

application of experimental archaeology if it were to maintain a useful methodology (ibid).

Although Coles had published on the topic earlier, his first in-depth publication on experimental archaeology was *Archaeology by Experiment*, also published in 1973. A review from the time shows that the work was well received (Hester 1977), and, even as recently as 2008, Saraydar considered *Experimental Archaeology* to be 'the most comprehensive treatment of the subject' (Saraydar 2008, p.xi). In an interview with Coles, Paardekooper (2009d, p.65) asked why he had written *Archaeology by Experiment*, to which Coles replied:

In 1973 I decided that some sort of statement, backed up by examples, should be made in support of experimental archaeology. I had been lecturing at Cambridge for some years on the subject, and found that examples were the best way to explain the concepts, the problems the achievements of experimental archaeology. (Coles in Paardekooper 2009b, p.65)

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Figure 6: *Advertisement for Experimental Archaeology (Anon 1980)*

In 1979, Coles produced another, even more in-depth publication: *Experimental Archaeology* (Figure 6). In the same interview, Paardekooper asked about the motivation for the 1979 volume, to which Coles replied:

The 1979 book came about as a more reflective essay on experiments, allowing me to advance more structured approaches, more focused upon particular problems, and to include more recent work. Several publishers wanted a book on experimental

archaeology and there was competition to get it! I think the 1973 book was more fun for me to write and use, but the 1979 book I hope set out some procedures in a more topical way. (Paardekooper 2009b, p.65)

Experimental Archaeology gave a broad account of the methodology and its use up until that point, and so often included studies that were more experiential than experimental, or addressed hypotheses that had a questionable basis in archaeological evidence. One in an otherwise positive review took issue with the latter:

My only major quibble with the book stems from the fact that considerable space is devoted to experiments whose substantive contributions to archaeological knowledge are dubious at best. A prime example is Heyerdahl's "Ra Expedition," in which Heyerdahl managed to sail a reed boat built by South American Indians from North Africa to Barbados. Great for National Geographic, but what relevant or archaeologically interesting questions this may have answered are hard to see. The same might be said for the Dutch "living history" experiment, whose goals were outlined as follows: "The project did not set out to provide scientific observations and records for others. Instead it was simply designed to provide a test and an experience for the members, to see how they would enjoy, and react to, life under simulated Neolithic condition" (p. 226). Fun yes; educational perhaps; but this sort of uncontrolled "experimentation" contributes no more to archaeology than a summer spent in boy scout camp. (Steponaitis 1981, p.962)

This issue of how 'scientific' experimental archaeology and more experimental projects are and the terms of how each is presented is important in the analysis of how experimental archaeology is accepted within academic archaeology, a topic more fully explored in the next chapter. However, in *Experimental Archaeology*, Coles supplied a loose definition of experimental archaeology which includes 'any honest effort to understand ancient artefacts by actually working with them' (Coles 1979, pp.11-12); and despite some dubious inclusions, Coles's work provided further support for the use of experimental archaeology in academic research (Gräslund, 1999, p.ix).

Several other books addressed experimental archaeology during the second half of the 1970s. In the US, there were *Experimental Archaeology* (Ingersoll et al. 1977) and *Explorations in Ethnoarchaeology*, edited by Richard Gould (1978). *Explorations* focused primarily on ethnoarchaeology; however, the volume also contained Ruth Tringham's 'Experimentation, ethnoarchaeology, and the leapfrogs in archaeological methodology', which analysed and criticised current views and applications of science at the time. Tringham, an archaeologist who had employed imitative experiments in her own research, focused in this chapter on the fact that experimentation is an important part of creating and testing hypotheses, but that attention to scientific procedures is important (Tringham 1978). While Tringham referred to criticisms of the

method, there were no direct references.

In addition to the books being published on the topic, journal articles were still being published at a similar rate in *American Antiquity*, although there was a slight drop in the rate of mentions of experimental archaeology in *Antiquity*. However, the *Journal of Archaeological Science* was established at this time; as the title suggests, this had a focus on archaeological research that employed scientific methods and techniques. From the first volume, *JAS* had a higher number and percentage of articles that included imitative experiments (Figure 2 and Figure 3).

There were also publications during this period that dealt with experiments being conducted at experimental archaeology centres; these included several by Peter Reynolds, such as 'Archaeology by experiment: a research tool for tomorrow', which was published as part of *New Approaches to our Past—an Archaeological Forum* (Reynolds 1978) and *Iron Age farm: the Butser Experiment* (Reynolds 1979), which discussed work done at the experimental centre Reynolds had established at Butser Hill in England in 1972 to explore the British Iron Age.

Butser Ancient Farm has actually occupied several different sites during its existence. First, it was located at Little Butser, a spur of Butser Hill, Hampshire, England. Then, a second site, the Butser Ancient Farm Demonstration Area, was established in 1976 on Hillhampton Down, also on Butser Hill. In 1991, both sites were abandoned due to issues with the local County Council. The third site was established at Bascom Copse, near Chalton (Reynolds 2008). Currently, despite changes in administration and location, Butser continues to function as a place for the public to interact with experimental archaeology and for experiments to take place.

In addition to Butser, another experimental centre was established in the UK. The site of West Stow, in Suffolk, UK, consists of an excavated 5th–7th century AD Anglo-Saxon settlement. This is where the core of the centre, an 'Anglo-Saxon' 'village', was constructed during the 1970s. Experiments were still taking place and being published as recently as 2011 (Macphail & Crowther 2011).

John Coles (1979, p. 1) noted early in *Experimental Archaeology* that:

Whether the archaeologist is considered to be a scientist or a humanist, whether archaeology itself is a science or an arts subject, matters little because it is one subject that strikes across artificial boundaries, and which seeks to unite those studies which bear upon the origin and the physical and cultural development of man. Archaeology seeks the evidence and experience of life, in the hope and the knowledge that by doing so mankind will better understand why life is as it is, and why man behaves as he does.

By the time *Experimental Archaeology* was published, experimental archaeology was fast becoming one of these methods. The new framework established by processualism, and the works of experimental archaeologists of the period, meant that experimental archaeology was not only once again being applied in research, but was actively being discussed.

The past ten years have witnessed a rapid growth in the field of experimental archaeology, a discipline which approaches archaeological remains in a questioning way, and attempts to understand what ancient man was doing, how he was doing it, and why he was doing it. (Coles 1979, p. vii)

1980 to 1990

The development of middle-range theory (Binford 1981), which aimed to link human behaviour and artefact use, helped to develop further the research frameworks in which experimental archaeology could progress. Archaeologists continued to explore processual and behavioural approaches to archaeology. However, in 1980, a different theoretical approach arose. Launched by the conference 'Symbolism and Structuralism in Archaeology', it was coined post-processual Archaeology (Trigger 2006, p.450). Post-processualism in Britain focused on how culture and ideology have shaped human behaviour and material culture. There was also the critique of the processualist concept that material culture reflects social structure; and in the US, post-processualists developed the idea that objectivity could not be fully achieved when studying culture, primarily because of our own ethnic, social, cultural, and personal biases and prejudices. A scientific approach was insufficient for studying the human past because scientific laws did not apply to culture, which varies, nor could culture be studied empirically (Trigger 2006, p.450–58). These critiques opened up the ways archaeological materials could be approached and interpreted.

Post-processual archaeologies aimed to explore different interpretations of the past, but there was no overt methodological or theoretical movement to employ experimental archaeology on such a scale as there had been with the American School or New Archaeology. However, there were positive implications in that post-processualism questioned the role of archaeology and the archaeologist, and advocated more critical evaluations of research.

Some have claimed that this critique was a catalyst for the rejection of experimental archaeology,

which began to be seen as a method of processualist archaeology (Millson 2011, p.2). It is true that some post-processualists would reject the emphasis on hypothesis testing because it could lead a researcher to ignore important data not related to the hypothesis or ignore the context of discovery (Saraydar 2008, p.11). However, it would be bad research practice in general to ignore or destroy evidence (ibid.), and imitative and actualistic experiments often incorporate some sort of contextual description when presented. Additionally, a look at the publishing rates for this period does not reveal a noticeable drop in the amount of experimental work being produced, as the number of references in *Antiquity* and *American Antiquity* stayed relatively constant. And, in contrast to what may be expected, there was a large spike during the middle of the decade in publications in *JAS*, with the journal having a much higher rate of experimental archaeology articles overall, most likely due to its more scientific orientation (Figure 2 and Figure 3).

In addition, Hodder, the leader of the post-processualist cause in the UK, later stated that, for the most part, archaeology is not an experimental discipline, but he considered experimental archaeology an exception which could help develop comparisons and test theories, although they would still have 'interpretive components' (Hodder 1999, pp.26, 46, 30 & 59–60). In addition to this written acceptance by a primary advocate of the post-processualist movement, experimental archaeology still had an obvious presence in the 1980s in research and in publications. The fact that some people perceived a decline in experimental archaeology in the 1980s will be discussed more thoroughly in the following chapter.

One example of the use of experimental archaeology as an active, explicit part of research during this period was the establishment of the Laboratory of Traditional Technology at the University of Arizona in the US. The laboratory was established in 1984, largely as a result of the efforts of Michael Schiffer, a professor at the university. The aim was to provide a place where students would be able to carry out experiments and analyse materials (Schiffer n.d., Bibliography).

Another example was the publication of the *Bulletin of Experimental Archaeology* (BEA) from 1980 to 1990. In his interview with Coles, Paardekooper (2009b, p.66–7) asked about the goals and the eventual role that the *Bulletin* fulfilled. Coles replied:

I don't think the *Bulletin of Experimental Archaeology* ever got into mainstream archaeology. It needed a much stronger structure, targeted aims and authors, better distribution network. The advisors did not get much involved in it, I regret to say.

In reading through the *Bulletin*, there is the impression that the audience consisted primarily of

people already interested in experimental archaeology, and hence, as Coles stated, possibly it did not branch out towards other archaeologists. Still, it definitely served a purpose in presenting and reviewing new research and publications and advertising courses, workshops and conferences.

One such conference, held at the Archeodrome in Beaune, France, was attended in 1988 by Maria-Louise Sidoroff, one of the interviewees discussed in Chapter 4. Her experience there would help drive the formation of an important group for experimental archaeology in the US, the Society for Primitive Technology (Sidoroff Interview, Appendix 11):

There were hardly any archaeologists or even amateurs conducting formal experiments when I began. In 1988, I was invited to give a paper on my replication work at an International Conference at the Archeodrome, Beaune, France. I suggested to the organizers that I also would like to present a paper focused on others working in Experimental Archaeology in the USA. To gather information for the paper, I met with Errett at his home in Virginia. During that research for the paper, it became clear to me that the few people who were experimenting knew little about others' work and there was nearly no communication among them. At the Conference in Beaune, the organizers placed me right after the main speaker. As I spoke and showed my slides, there was constant chattering. I assumed that the audience was not very interested in what I had to say and were more seriously engaged in 'meeting and greeting'. Later, I was told the 'chattering' was because the members of the audience were translating my English words into French, German, Polish, Czech, etc....

When I returned to the US, I realized that an organization was required to keep people from reinventing the wheel, each in their own separate worlds. Errett also had come to that conclusion. I joined with him to lead a small group to establish the Society of Primitive Technology (SPT) in 1989, which is still a strong voice for Experimental Archaeology in the USA and instituted change.

The primary focus of SPT and its publication, the *Bulletin of Primitive Technology (BPT)*, is promoting the development, 'rediscovery' and use of 'traditional' crafts such as the production of use of stone tools, projectiles, ceramics, and so on, many of which are crafts, processes and artefacts similar to those studied by archaeologists. As indicated in the interview with Sidoroff above, many of the people involved in its formation were interested in primitive technology and conducted archaeological research.

By the end of the decade, it appeared to the editors of BEA that, for the most part, experimental archaeology had improved in terms of an increased coordination between researchers and quality of experiment. Nonetheless, such progress was still affected by issues such as funding (which is a constant issue in archaeology) and the often blurred line between experiment and replication. The editors also felt that experimental archaeology was not being well integrated within the wider

scheme of archaeological research, an issue that is seen to plague the method still (Johnston et al. 1989).

1990 to 1999

Archaeology continued to develop in theoretical terms, technologically, and methodologically, building on the steps taken in the 1970s and 80s. However, this development was not uni-linear, and different theoretical factions continued to rise and fade (Trigger 2006, Chapter 9). The continued evolution of computers allowed for the development of even more sophisticated programs and ways of digitising, analysing and presenting data than had been available in the previous decades. In addition to this, new scientific developments were being applied to archaeology. One such example was the application of residue analysis.

Despite this continued development, and a renewed interest in scientific techniques, there was still perceived to be a lack of interest in experimental archaeology in 'mainstream' archaeology (Coles 1997, p.310; Whittaker 1996, p.51). Coles noted that there were still issues that continued to hurt experimental archaeology, including its *ad hoc* nature, funding, a decline in the observation of traditional crafts, pressures from public presentations and the tendency for some forms of experiments, particularly buildings, to be seen as being the 'truth' instead of a step in testing theories (Coles 1997, p.210).

By now there was an obvious pattern of such critiques coming from within experimental archaeology, and while the goal was no doubt to strengthen experimental method and application through such criticism, there is evidence that the method was continuing to become more integrated into research. Looking at publication rates, there must have still been some hope for the application of experimental archaeology during this period. Despite an initial dip in the early part of the decade in terms of percentages, for the most part, publication rates were steady; and the numbers of articles with experimental elements actually increased, especially in *JAS* (Figure 2 and Figure 3).

2000 to Present

Recently, it has been commented that experimental archaeology still holds a marginal role in

archaeological research despite the developments of the past four decades. There is a major emphasis on the fact that there is little understanding as to what experimental archaeology is (Forrest 2008, p. 38; Cunningham et al. 2008, p.vii; Millson 2011, p. 3; Coles in Paardekooper 2009b, p. 67; Bell Interview, Appendix 4; Bradley interview, Appendix 9). It is worth noting that all of these people, at one time or another, have been involved with experimental archaeology, often including it in their own research programmes. Furthermore, as illustrated in Chapter 1 and the following chapter, this is a topic that is so often raised that it has become an obsession of sorts within the experimental archaeology 'community'.

One aspect that does seem to be developing well in this decade is the establishment of conferences and groups interested in experimental archaeology; 2006 saw the beginning of a series of conferences focusing on experimental archaeology in the UK. The first was at UCL, and a second, similar event was held at the University of Exeter, which, at the time, was the only UK university offering an MA in experimental archaeology. Subsequent conferences have been held in Edinburgh (2008), Aberdeen (2009), Reading (2011), and York (2012). Several of these conferences are discussed in more depth in Chapter 4. It was at the Edinburgh conference that, during the discussion, Bruce Bradley expressed the belief that the emphasis should not be semantics, although those that use experimental archaeology should remain self critical, and that experimental archaeology needs to be more embedded within larger research programmes. Other participants voiced the opinion that experimental archaeology is not well recognized within archaeology. However, the participants of the conference seemed divided on this issue, with some having experienced this as an issue while some others had not (Paardekooper 2009, p.61). It is also worth reemphasising that it was at this conference that the general idea for this research began to develop (see Chapter 1).

Other recent conferences in the US and the UK that have focused, at least in part, on experimental archaeology have been the EXARC Meeting in Cardiff, Wales, UK 5–7 March 2010. Also in Wales, the Egypt Centre and the Department of History at the University of Wales, Swansea, hosted a conference titled *Experiment and Experience: Ancient Egypt in the Present*. Both of these conferences are discussed in Chapter 5.

Also in the US, the first annual Reconstructive and Experimental Archaeology (RE-Arc) conference was held at the Schiele Museum of Natural History in Gastonia, North Carolina, USA on 16–17 October 2010, with a second conference being held in 2011. The first conference helped to gauge

the level of interest in experimental archaeology and reconstruction in the US (Figure 7).

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Figure 7: *RE-Arc conference description (RE-Arc n.d.)*

There has also been experimental archaeology at the EAAs in addition to that discussed in Chapter 5. In 2004, there was a session on 'recent approaches in experimental archaeology', and there were a number of French archaeologists in attendance (Paardekooper 2005, p.149). At the Meeting of the European Association of Archaeologists, Malta 17–21 September 2008, there was a session entitled 'Experimenting the Past: the position of experimental archaeology in the archaeological paradigm of the 21st century', which included 21 papers and two posters. One review of the session was not completely positive, highlighting the fact that many papers did not employ 'adequate experimental methodology or address theoretical issues. Instead, case studies of varying quality formed the overwhelming majority' (Jeffra 2009, p.58). The US equivalent, the SAAs, has also featured papers

on experimental archaeology recently; this is also discussed in Chapter 5.

Several of these conferences have been supported by organisations interested in experimental archaeology. Two such organisations are European based. The European Association for the Advancement of Archaeology by Experiment (EXAR) was established in 2002 (EXAR n.d., History) and EXARC was founded in 2003, which is an international organization associated with the ICOM and represents archaeological open-air museums (AOAM) and experimental archaeology, (EXARC n.d., About us). In the US, there is also RE-Arc, established in 2009, whose goal is to serve as a place for experimental archaeologists of all types and academics to congregate and discuss as well as present and potentially publish on the topic of experimental archaeology. RE-Arc also aims to link academics and primitive technologists (Schindler Interview, Appendix 5).

While experimental archaeology has been integrated to some degree into the teaching of archaeology at the undergraduate and postgraduate level since at least the 60s, the first MA in experimental archaeology in the UK was established at the University of Exeter during the mid-2000s, followed several years later by the establishment of an MSc at the University of Sheffield. Experimental archaeology also continues to be taught at the university level in the US, but there are no specific degrees in the method.

Publication rates continue to be steady. *JAS* continues to lead in terms of numbers, and there has been a slight rise in *American Antiquity* (Figure 2 and Figure 3)³. The roles of conferences, publications and the teaching of experimental archaeology in the past ten years, as well as several other issues, are discussed further in the following chapters.

³ In 2003, the journal *Antiquity* began publishing short articles online in a *Project Gallery*. These articles were not included in this survey.

Chapter Four: Research Framework

The way experimental archaeology is presented plays an important role in how it is accepted, and some historical examples of how experimental archaeology has been presented and accepted in the past were discussed in Chapters 2 and 3. In order to look at this issue of presentation and acceptance, a reflexive, ethnographically-based methodology, which relies upon a critical realist stance, has been employed. This research framework is discussed here.

Ontology, our view of reality or the nature of being, and epistemology, our understanding of what it means to know something, are often intertwined and can even be dependent on one another. Closely related to epistemology is methodology. A methodology describes how we come to know something in a practical fashion. These three concepts are important when developing a critical research framework.

Ethnography

Ethnography is the primary research method employed in this study; it usually refers to both the method of research and the resultant written product. It is often based on fieldwork and uses mostly qualitative techniques, usually meaning some sort of engagement with the people being studied. Analysis and conclusions are developed from this experience and are usually of a descriptive nature (Davies 2008). Different field methods can be used in research, including participant observation, questionnaires and surveys, both structured and unstructured. A significant amount has been written on the use of ethnography in social research, concerning both theory and methodology, and while it is beyond the scope of this work to cover all of these topics, this chapter focuses on the ones most relevant to the research framework that has been employed in this study, and concerning the role of ethnography in studying archaeological practice.

Reflexivity

A common theme is the idea of 'reflexivity', where the effect of the researcher on what they are investigating is accounted for (Davies 2008, p.15). Two books on ethnography have strongly

influenced the theoretical perspective that is taken here. The first is *Becoming a Reflexive Researcher* by Kim Etherington (2004), and the second is *Reflexive Ethnography* by Charlotte Aull Davies (2008).

Etherington's work on reflexivity is interesting because it is essentially an ethnography of how people become ethnographers, and how they cope with their role as a researcher. Etherington employs several different ethnographic methods in her research that are meant to increase reflexivity, including different forms of narrative that consist both of her own writings and thoughts, and interviews and writings from other academics and researchers as they reflect on their own work. The emphasis is on recognizing the role of the researcher in ethnographic studies and recognizing that it is not something that should be purged from research but embraced (Etherington 2004). Davies also looks at incorporating reflexivity into research and discusses how this can be achieved with a variety of data collection methods.

Acknowledging the role of the researcher is key, as researchers develop methodologies 'that reflect their personal views of reality and their beliefs about how we know what we know' (ibid, p. 110). In addition to contextualizing the role of the researcher, it is important to consider the idea that the researcher is usually studying something that is outside of themselves, requiring more than introspection (Davies 2008, p.3). Finding a balance between studying the 'other' and focusing too much on one's own role, or 'navel-gazing' as it is often called, is a serious issue. Davies also raises the point that we are unable to study something without coming into some sort of contact with it, meaning we also have to consider our physical influence on the research process (ibid. pp.3-4). There can be a strong connection between the researcher and the subject in ethnographic research, and since those being studied are conscious beings, the influences of research are magnified and can be less predictable. Actively reflecting on the role of the researcher and the interaction with those being studied is a way of addressing these topics. This is applicable to the research at hand or any study in which the researcher finds themselves studying fellow students, colleagues, superiors and even friends and supervisors.

There has also been a call for a more reflexive form of archaeology, manifesting itself both in ethnographies of archaeology (Edgeworth 2006a, Edgeworth 2006b, Edgeworth 2010) and in archaeological practice (Hodder 2000). Matt Edgeworth contextualizes archaeological reflexivity thus (2010, p.53):

The cultural backgrounds of archaeologists, and the particular social and material practices through which we 'do' archaeology, clearly influence the way evidence is interpreted and how the past is understood. Therefore, in addition to fixing our gaze on cultural activity in the distant past, it is also important to turn attention to our own cultural activities in the present through which that view of the past is made possible.

This attempt to develop the context of archaeological practice is the focus of many ethnographies of archaeology and differs from the use of reflexivity in Etherington and Davies, which often focuses on the researcher. A combination of the two approaches, one in which reflexivity is employed to keep the researcher aware of themselves, and one to make the researcher aware of the context of those being studied, has been applied in this study.

Postmodern Critiques of Ethnography

Reflexivity is historically tied to postmodern critiques of ethnography. Postmodernism can be seen as a 'process of de-differentiation, of breaking down boundaries and rejecting the autonomy of different realms' (Davies 2008, p.15). This is in direct defiance of cultural differentiation, a major characteristic of modernity, which made a form of epistemological realism possible. Epistemological realism 'holds that ideas can give a true picture of reality; it depends on the differentiation of such ideas from the reality that we are held to represent, hence scientific ideas are separate from but truly represent nature' (ibid, p. 14).

A major consequence of the postmodern criticism of ethnography was that it challenged social research by questioning the relationship between reality and ideas. For ethnography in particular, postmodernism broke down the boundaries between the ethnographer and the people they were studying. This meant that ethnographers were 'creating their objects of study' instead of 'reporting on a separate reality'. It also showed that there is less of a boundary between the ethnographer and the ethnography, and that authors are more closely tied to their work than is often acknowledged (ibid, p.15). Edgeworth discusses a similar problem in ethnographies of archaeology, acknowledging that (2010, p.54):

It is difficult to apprehend one's own cultural background and embodied skills, one's own cultural standpoint from that standpoint. This is the central problem that ethnographies of archaeology grapple with. Reflexive methods and techniques ... help up to a point, but it is important to acknowledge the very real limits of reflexivity.

According to Davies (2008, pp.15–16), there can be important, negative implications for ethnographic research. First, taking the focus on the role of the researcher to an extreme, it can be

argued that the research being done is actually about the researcher, not the study subject. This can be particularly difficult when studying a subject of which the researcher is already a part, such as in the case of archaeologists studying archaeologists, or experimental archaeologists studying other experimental archaeologists.

Edgeworth advocates taking a slight step back in this case, saying that 'one would have to look at the familiar world to some extent from outside—rather as anthropologists have traditionally looked at distant and 'exotic' tribes' (Edgeworth 2010, p.54). In addition, there is the denial of authority of the researchers championed by a postmodernist rejection of 'meta-narratives'. This means that there is 'no basis on which to judge one perspective more correct or truer than another; there are only perspectives' (Davies 2008, pp.15–16).

Critical Realism

Davies aims to employ the positive parts of reflexivity and postmodern critiques of ethnography within a critical realist framework inspired by the work of Roy Bhaskar (Davies 2008), which also influences Matt Edgeworth's work (2006a). Critical realism recognizes that, while there can be different theories of the world, if one theory better describes phenomena then there is a rationale for choosing that theory. This means that there is the potential for scientific knowledge to develop over time (Bhaskar 1978, p.248). In doing so, Davies, in my opinion, provides a more practical research framework within which to work than Etherington:

Critical realism allows us to conduct research that accepts its inherent reflexivity while still maintaining that its products are explanations of an external social reality requires both an ontology that asserts that there is a social world independent of our knowledge of it and an epistemology that argues that it is knowable. (Davies 2008, p.18)

This simply means that existence comes before theory (Edgeworth 2006a, p.34). In addition to this, Etherington (2004, pp.71–72) supports the idea that the world exists independently of our being conscious of it, but that our relationship with this world is socially constructed and subjectively determined. Reflexivity encourages the researcher to acknowledge these relationships in their actions as well as in the actions of those they are studying, allowing us to develop our observations of the world. Critical realism allows for 'explanatory abstractions' that are based in the 'real world' empirical observations (Davies 2008, pp. 21–22).

While positivist and hermeneutic approaches focus primarily on epistemological questions, critical realism focuses 'on the ontological question of the properties that societies possess, before shifting

to the epistemological question of how these properties make them possible objects of knowledge for us' (Davies 2008, p.19). There are intransitive objects of knowledge, which exist independent of scientific knowledge, and transitive objects of knowledge, which are those things that are established as part of scientific knowledge (Bhaskar 1989, pp.26–27; Edgeworth 2006a, p.33).

Ethnographies of Academic Practice

This work aims to incorporate reflexivity and critical realism in using ethnographic methods to study a part of an academic discipline, which in this case is experimental archaeology. Ethnographic studies of academic methods and subjects are not a new concept although, as is illustrated in the following section, it is only in the past decade that ethnographies of archaeology have become popular.

One of the more comprehensive studies of academia in general is *Academic Tribes and Territories* (Becher & Trowler 2001). *Tribes and Territories* looks at the social aspects of academia and at how academics perceive themselves as well as colleagues in their own and other disciplines. While the first edition, published in 1989, looked at academic organizational, cognitive and social frameworks in elite institutions in the US and Britain, the second edition takes into account changes in higher education that had taken place since the original study and includes data from less 'elite' institutions as well. The study looks at knowledge and socially related issues on several levels, including individual, disciplinary and sub-disciplinary levels (Becher & Trowler 2001, Chapter 1). It also looks at the categorization of knowledge creation and at the boundaries and relations between disciplines. However, the work of many academic disciplines has an impact outside of their discipline, and academic boundaries can be permeable, as in archaeology (Bhaskar 1978).

Becher and Trowler employed both qualitative and quantitative data in their assessment. The study differs from Etherington and Davies in that the other two focus on developing reflexive ethnography as a method and on the theory behind it. *Tribes and Territories*, on the other hand, uses ethnographic techniques to study different aspects of academia, including using their application in categorizing academic pursuits and improving the development of academia. Most applicable to the work at hand, *Tribes and Territories* addresses the idea of there being a 'humanities' and 'science' dichotomy, as proposed in C.P. Snow's *Two Cultures* (Snow 2008). Over the past several decades, there has been a discussion of the place of archaeology within these two supposedly opposed ways of knowing.

Another work that is often brought up when looking at the social aspects of academia and how they affect knowledge development, and one which influenced Becher and Trowler's work, is Thomas Kuhn's *The Structure of Scientific Revolutions*, originally published in 1962 (Kuhn 1996). Kuhn challenged the idea that science progresses continuously. He argued that periods of normal science, where there is conceptual continuity, are sometimes interrupted by a 'revolution' in science, or a paradigm shift. A paradigm shift is where the discovery of new data, theories or questions changes the rules of research, and asks new questions of data. Paradigm shifts, according to Kuhn, are not necessarily logical, and can be partially influenced by social issues. The idea of paradigm shifts in the sciences has trickled down to archaeology. Echoes of it can be seen in the works of Schiffer (2009) and Millson (2011) (See Chapter 2); both identify how the use and acceptance of a methodology, in this case imitative and replicative experimentation, can be linked with changes in theoretical approaches.

Critiques of Positivism

Perhaps most importantly, Kuhn acknowledged the social aspect of scientific discovery and development, and opened up the floor to questions about the legitimacy of scientific knowledge. This was in opposition to the positivistic perspective, which is that the aim of knowledge is to describe phenomena; knowledge of anything beyond what we can observe empirically is impossible. Over its history, the term 'positivism' has been applied to multiple perspectives. Positivism can be seen as having three major tenets (Hammersley & Atkinson 2007, Chapters 5–6):

- *The methodological model for social research is physical science, conceived in terms of the logic of the experiment.*
- *Universal or statistical laws as the goal for science.*
- *The foundation for science is observation.*

Positivism also holds the view of science that theories are proven through verification. There are some issues with these tenets, one of which is that they favour quantitative data over qualitative. If the methodological model for the social sciences is the experiment, then many ethnographic-based methodologies do not have a place in research.

In addition to Kuhn's criticism of positivism, there was also the work of Karl Popper (Popper [1935] 2008) and of his student Feyerabend. Both Popper and Feyerabend were critical of the

idea that a hypothesis or theory can be proven beyond doubt and instead favoured the view of falsifiability. This means that proven certainty is unattainable. However, Popper also argued that an objective truth does exist, as in critical realism, and that it can be found through refutation, although when looking at social phenomena, this can be difficult to achieve. Many archaeologists recognize that our research is influenced by our cultural context (Trigger 2006, p.17). In Kuhn's *Scientific Revolutions*, social context is shown to play a role in the questions asked and the research conducted in the physical sciences as well.

Some post-modern perspectives and the critiques of positivism can lead to an 'extreme relativism and antipathy to generalized explanation that is essentially destructive of the research enterprise' (Davies 2008, p.26), something that has often been feared with Kuhn's acknowledgement of the social context of scientific knowledge. Both the positivist and extreme relativist stances consider 'the self-conscious nature of human subjects' as 'the main difficulty in the study of human society', with positivists trying to reduce the effects, and some postmodern researchers focusing on them (Davies 2008, p.19). Bhaskar says that both the positivist and interpretive views of society are too simple and supply 'either a conceptually impoverished and deconceptualising empiricism, or a hermeneutics drained of causal import and impervious to empirical controls' (Bhaskar 1998, p.12 in Davies 2008, p.19). As with positivism, postmodernist approaches have many issues. However, it is important that we take into account the important questions and perspective that postmodernism has brought. One such important contribution is that focus on reflexivity in research.

Ethnographies of Archaeology and Related Topics

There has been research that has employed ethnographic techniques when looking at archaeological practice, often focusing on the role of reflexivity in theory and practice (Edgeworth 2010, p.53; Hodder 1997; Hodder 2000). This is different from ethnoarchaeology, which is the use of data from ethnographic work to supplement archaeological research. Instead, ethnographies of archaeology use ethnographic methods to study archaeological practice.

Matt Edgeworth, one of the supporters of applying ethnographies to archaeological practice, wrote a short history on the origins of the practice (Edgeworth 2006b). One of the earliest instances of ethnography was a short article published by Louis Dupree, an American anthropologist (Dupree 1955). While Dupree had much experience in the field, his idea about the social aspects of

archaeologists were based on general observations as opposed to organised observation in the field. Dupree identified that 'artificial small groups' are created when local workmen are hired to work with archaeologists. However, over time, this 'artificial small group' evolves into a 'natural group' with its own sets of rules (Dupree 1955, p.271). Dupree did not go any further with his observations; however, the ideas of artificial small groups and communities of archaeologists were employed in later studies (Edgeworth 2006b, p.2).

In 1967, Ove Wall, Anita Christiansson, and Helena Wall undertook an ethnographic study of archaeological practice within the context of an excavation in Sweden. While Hans Christiansson, the director of the excavation at Bjurselet, was the one that initiated the study, the ethnographic work was delegated to others so that Christiansson, as the director, could also be observed. The focus was on the social dynamics, including the relationship between the team and its leader, and the cooperation and interaction between participants (Wall 1968, Christiansson and Knutson 1989 in Edgeworth 2006b).

In 1992, Joan Gero, an archaeologist, and Charles Goodwin, a linguistic anthropologist, both undertook an ethnographic study of archaeological fieldwork at the excavation of Arroyo Seco in Argentina (Goodwin 2006, Edgeworth 2006b, Edgeworth 2006a). Goodwin focused on both the language and the material environment by video recording people in their work environment (Goodwin 2006). Other ethnographies of archaeology have taken place, both in the UK and abroad. One of the longest standing projects to promote a reflexive archaeology, which also includes ethnographic observation, is the work done at Catalhöyük in Turkey (Hodder 2000). Here, several social anthropologists, including Carolyn Hamilton (2000), Ayfer Bartu (2000), and David Shankland (2000), were invited to come observe the excavation (Hodder 2000).

In addition to this, several other different strategies were adopted to affect how the data being created at the site were approached and presented (Hodder 2000). Field archaeologists keep diaries of their experiences on site (Hodder 2000, p.7). At Catalhöyük, the diaries overall were viewed as a positive contribution, although they also sometimes caused tension (Farid 2000, p.25). Another reflexive tool was the use of video to record discussions that developed from 'priority tours' (Hodder 2000, p.7) and to video document the progression of the excavation (Brill 2000), the same technical method as had been used by Goodwin to study language in context. At Catalhöyük, the summaries of these 'priority tours' of the trenches made by the laboratory staff onsite were made available on the site database alongside the more traditional forms of site records and the diary entries (Hodder

2000, p.7). Initially, tours by laboratory staff caused tension among the field staff, but this was relatively smoothed over as a cooperative relationship was developed (Farid 2000, p.19-21).

One of the anthropologists, Ayfer Bartu, focused on the different groups that produced and consumed knowledge about Catalhöyük, including people local to the area, artists, those interested in the 'Goddess' movement, investors and other groups (Bartu 2000). The second anthropologist, David Shankland (2000), focused on the relationships between the site and the local community. The third anthropologist, Naomi Hamilton, studied the contexts of the production of knowledge (Hodder 2000; Farid 2000, p.26; Hamilton 2000), similar to the topic studied in Matt Edgeworth's (2006a) ethnography of archaeology. Both undertakings noted some initial resistance from field archaeologists to having someone observe and question their work (Farid 2000, Edgeworth 2006a).

In addition to these ethnographies that focus on archaeological practice, there are also those, more in line with Shankland (2000) and Bartu (2000), that shed light on the sometimes complicated relationship between archaeology and other groups (Whittaker 2004, Simpson 2010). One is a study by Faye Simpson (2010), which looked at community archaeology and its impacts, comparing several archaeological projects in the US and the UK. Simpson evaluated the impact of community archaeology projects and the value of such projects for the public, using ethnographic methods such as participant-observation and interviews. She then compared the espoused views and goals of the archaeologists and the projects with their practised views and the outcomes of the project (Simpson 2010, p.82). The participatory observations were done of both visitors and staff, with a focus on interaction, and were recorded using the normal field notes and photographs (*ibid*, p.35). Interviews were primarily unstructured although focused around key themes (*ibid*, p.35). Both techniques are employed in this thesis as well.

The method of comparing espoused values and goals to actual, observable outcomes is similar to a method that is employed in this study as well, although here both quantitative and qualitative data are employed. After gathering data on how experimental archaeology is viewed through interviews, an online questionnaire, and literature survey, more 'quantitatively oriented' data was gathered on publication rates so that both types of sources could be compared.

Along the same lines as archaeologists conducting ethnographic studies of other archaeologists is the study of American flintknappers by John Whittaker (2004), an archaeologist and flintknapper. Whittaker drove his ethnographic narrative of American flintknapping by often using individual

knappers as catalysts for discussing different topics. He focused on the Fort Osage knap-ins, but includes data from mail questionnaire, conventions, online and email forums and interviews. While other forms of ethnographies looking at archaeology have focused primarily on fieldwork or observation, both Whittaker and this current work branch out to conventions (in the case of this study, conferences), questionnaire (mail-based for Whittaker, online here) and written literature, including what is available online.

The study covered wide ranging topics, including history, which Whittaker relates to the development of lithic studies in archaeology, and organization, which is non-hierarchical and loosely connected through various networks, although there are multiple ways of conferring or gaining status within this 'egalitarian system' (ibid, Chapter 6). However, it can be different according to geographic location in the US. While the current study of experimental archaeology does not look specifically at organisation, history, as seen in the previous chapter, plays an important role in contextualising current practice and beliefs.

The study also focuses on cultural and social issues, such as the role of public performance (ibid, p.114), learning, different levels of identity, competition, exchange and other topics. Whittaker also looks at material concerns, such as aesthetics, and knappers' relationships with different forms of stone. *American Flintknappers* has an in-depth, long-term research behind it, that allows it to cover a wide variety of cultural and material issues not often seen in the shorter studies discussed previously. The one long-term study discussed in the previous section, *Tribes and Territories*, presents the results of the research very differently. Whittaker includes issues with gathering the data while discussing them, and presents them in a narrative manner that makes the study much more engaging, yet keeps it from being too subjective by critically analysing the role of the ethnographer and the actions and words of those being observed.

Reflexivity in Archaeology and Ethnographies of Archaeology

Matt Edgeworth is an archaeologist and one of the main proponents of applying this reflexive method to the study of archaeology; he has used ethnography to study field archaeology. Instead of using analogies to gain insight into ritual monuments in Neolithic Europe, as originally planned, Edgeworth's thesis research evolved in focus to look at archaeological practice. While an experienced field archaeologist, Edgeworth spent ten weeks at the excavation of a Bronze Age ring-ditch in England as an ethnographer (Edgeworth 2006a; 2006b, p.3).

In *Analogy of Practical Reason* (Edgeworth 1992), he looks at the ethnography of archaeology as a 'reflexive or ironic form of *ethno-archaeology*' (1992, p.4, italics in original). According to Edgeworth (1992, p.4):

The focus is still on material culture, but on our own rather than that of some distant Other. For clearly, if we are interested in the ways people ascribe meaning to or extract meaning from material things, we do not necessarily have to journey far in time or space.

From this point of view, the use of ethnography to study archaeological practice is more of a reflexive act, to make us aware of how we use analogy, rather than learning information about practice that can be used in its own right (Edgeworth 1992, p.4). He also addresses the idea that concept of 'otherness' that defines the relationship between researcher and subject affects research, and it tied to the idea that our own, more scientific culture is beyond investigation (Edgeworth 2006a). By using an ethnographic approach to study familiar cultures and practices, it is possible to overcome preconceived ideas and look more critically at how knowledge is developed.

A focus of Edgeworth's work is the *act of discovery* (1992, 2006a), which he defines as 'our original contact with material entities—the objects of our knowledge—as these emerge from the ground in the context of excavation practice' (Edgeworth 1992, p.3). His claim is that archaeological theory takes this initial discovery and the people that make it for granted, even though this is the initial interpretive step on which later acts and interpretations are founded (Edgeworth 1992, p.4; 2006a). Edgeworth aims to lead archaeological theory to consider the thoughts and actions associated with research and discovery, not just what people are writing (Edgeworth 1992, p.8). He focuses primarily on how knowledge is gained, especially 'common sense' knowledge, and about the ideas that expressed in archaeology (Edgeworth 2006a, p.10).

Metaphors in Archaeology

Edgeworth states that the root metaphor that structures archaeological knowledge is the idea of the 'archaeological record', particularly the role of material remains as a 'record' of the past:

While this metaphor has highlighted many important aspects of material evidence, it has simultaneously hidden equally important aspects of archaeological practice. It has, in effect, 'covered over' the act of discovery, the subject of this thesis. In order to bring the act of discovery to light, a different root-metaphor or way of looking at things is required. (Edgeworth 2006a, pp.13–14)

This can even be seen in the purposefully reflexive work at Catalhöyük, under the direction of Ian Hodder. Hodder focuses on the writing practice of archaeology (Hodder 2000, pp.16–18). He highlights the fact that the recording archaeologists do takes place in the 'field':

'Field' of course suggests associations with agriculture and with the separation of village from field. When we go 'into the field' we go away. We make records and 'return'. The field is 'somewhere else'. (ibid, p. 18)

In *The Languages of Archaeology*, Rosemary Joyce (2002) looks at archaeological narratives, a concept closely tied to Edgeworth's concept of the root metaphor. Such narratives primarily have to do with 'the construction of persuasive stories about imagined pasts' (Joyce 2002, p.2). However, narrative plays a role, not only in how ideas of the past are presented, but also in the construction of archaeological knowledge (in this case as a 'record' which can be 'read') and how we present the discipline of archaeology in historical and contemporary terms. This applies to the narratives surrounding the acceptance of experimental archaeology and their potential relationship to the metaphors concerning archaeology.

While processualist and post-processualist views of this metaphor may differ, archaeology is still a record, whether read or written by archaeologists (Edgeworth 2006a, pp.14–19). It is as readers that archaeologists learn about the discipline and gather knowledge. It is as writers that they demonstrate this knowledge and make themselves known (ibid, pp.20–21). This overarching metaphor influences the language of archaeology which employs both common and scientific terms and phrases which may have different connotations outside of archaeology (Joyce 2002, pp.10–11). Instead of the metaphor of 'record', Edgeworth (2006a, p.30) promotes the metaphor of material remains as 'raw material' which we gather, produce and interpret.

An important part of the practical side of archaeology, and closely linked to the *act of discovery*, is analogy. 'Analogy-in-action', where an excavator draws on past physical experience, for example, to identify and define artefacts, is used in practical fieldwork (Edgeworth 2006a). The analogies that archaeologists draw while excavating to interpret the data they are producing can affect the final product. This can also be applied when referring to the analogies that are developed during imitative experiments. Therefore, analogy is used not only when ethnographic data are being used, but as a bodily and cognitive process that takes place in much of archaeological practice (ibid, pp.48–51). Analogy plays an important role in all steps of archaeology, and experimental archaeology is no exception. If anything, experimental archaeology is a part of the discipline where analogy is paramount. Not only are the results of experiments used in analogous relationships with

archaeological data, but analogy also plays a role in how we interact with experimentation on a physical and cognitive level.

Unfortunately, in archaeology, facts are conflated with the archaeological records that are produced. Processualists and some post-processualists have a different view of 'acts'. Some processualists view them as something objectively true and verifiable while some post-processualists view them as being made or created (Edgeworth 2006a, pp.22–24). However, if the root metaphor governing archaeology is changed, then there may be a chance of overcoming this polemic (ibid, pp.24–25):

If we focus attention on archaeological practice as work or labour, for example, rather than reading or writing, it makes sense to conceive of facts being manufactured or made while at the same time always being made out of something. To say that facts are social constructions does not necessarily imply that there is no external reality; this reality can still be construed as the raw material out of which facts are made.

Metaphors and Perception

In addition to the root metaphor of archaeology as a 'record', there are other metaphors that permeate archaeology. Joyce uses Bakhtin's concept of heteroglossia, which recognises that often, 'commonplace languages embedded in speech or writing act like continuing echoes of speakers from the original locations... where these languages originally gained their currency' (Joyce & Preucel 2002, p.26). This can sometimes be seen within archaeology, such as where terms British gentlemen adapted from military excursions are still employed in an archaeological context (Joyce & Preucel 2002, pp.21–26). Likewise, in the US, the language used in North American archaeology is sometimes drawn from the era of the cowboy (Gero 1985, p.342; Joyce & Preucel 2002, p.27).

Outside views of archaeology are often shaped by popular conceptions (Saraydar 2008, p.1). These are often more modern representations of archaeology, such as Indiana Jones and Laura Croft. However, these continue to be based in the established languages of archaeology (Joyce & Preucel 2002, pp.27–28).

Saraydar (2008, p.2) compares the popular view of archaeology, which usually involves people 'digging', to that of a popular view of chemists:

Let's compare these hypothetical results with the ones we might receive if our question concerned chemists rather than archaeologists; the chemists described to us would most likely be dressed in white lab coats and situated in laboratories filled with exotic instruments and glassware. They would probably be hard at work mixing chemicals or preparing solutions and heating them over Bunsen burners to discover what sort of reaction might occur. In the popular imagination, danger for the chemist would surely

present itself in the ever present possibility of poisonous fumes and explosions, in contrast to the rattlesnakes, booby-traps, unfriendly natives, and ruthless competitors thought to plague the archaeologist.

In this view, there is a difference in how knowledge is thought to be gathered in an experimental science, such as chemistry, and a discipline such as archaeology, where archaeologists are viewed as receiving data through a process that is passive, and yet there are archaeologists that conduct experiments (Saraydar 2008, p.2). However, when discussing analogy and metaphor, Edgeworth focuses on the creation of archaeological information and the associated actions and material culture, which is a different view than that of the archaeologist obtaining data that has already been created.

Archaeologists learn these root metaphors through social integration, which includes the interaction that takes place within academic institutions and through academic texts. Social groups, including academic disciplines, have particular ways of forming knowledge, an issue discussed in *Tribes and Territories*, and these methods are an important part of their culture. Members of academic disciplines come to define themselves through these methods and ways of learning and set ways of presenting oneself. But what happens when a segment or relation of an academic community does not follow such conventions? While archaeology is its own community, within it are sub-disciplines that have their own ways of developing and sharing knowledge. Different discussions and ways of learning and conferring knowledge take place in the field rather than in the laboratory or classroom. Experimental archaeologists also have different ways of conferring knowledge that relate not only to archaeological knowledge and 'facts' but also craft skills and the development of scientific methods:

[W]hen carrying out experiments that replicate past behaviors and processes, the activities of archaeologists may align more closely with popular images of scientists, although in most cases the experimental trials take place in the great outdoors and white lab coats only occasionally make an appearance. (Saraydar 2008, p.3)

The Importance of Ethnographies of Archaeology

While, as discussed in Chapter 2, historical narratives are important, available historical evidence has its limits—one being that it lacks the ability to shed light on the most current practice of experimental archaeology. Recently published documents have had to go through the processes of being written up, edited, and finally accepted before being published for mass consumption. This means that the results and the way the article reflects current trends are usually out of date by the time the article is published. There is also the fact that much of the processes relating to

experimental archaeology never reach publication. This is especially true of 'experiments' that are more related to education or skill acquisition. Finally, a wealth of information can be gathered from what happens once an experiment is published (or not published as can often be the case). Where are experiments published and how well are they received? These are some of the reasons why this study also employs evidence on the state of experimental archaeology that has been gathered by the author, first hand, using ethnographic methods and both qualitative and quantitative research.

Ethnographies of academic practice have shown that they are affected by social aspects. These, in turn, affect the development of knowledge (Nadar 2001, p.610). For Etherington, a reflexive researcher has the capacity to 'acknowledge how their own experiences and contexts (which might be fluid and changing) inform the process and outcomes of inquiry' (Etherington 2004, pp.31–32). This awareness of different contextual influences can bring us closer 'to the rigour that is required of good qualitative research' (ibid, p.32).

While more archaeologists today are aware of the social and cultural context of their research, few question their personal and social motivations and how these may affect their work. There has also been limited work done concerning how the stories that are used to construct disciplinary histories and happenings affect current practice and production. Ethnography opens the possibility to develop a different way of looking at such issues because it is not part of a unified perspective, since researchers are able to develop their own specific methodologies and ideologies. On top of this, ethnographic studies are often subversive, allowing for a 'critical ontology' (Edgeworth 2006b, p.14). There is an additional level of criticism as well, since ethnographic studies of academic disciplines, such as archaeology, are even more likely to be analysed by those that they are about, and they have more power to criticise and respond to such studies in a public forum. This allows even more questioning and analysis of the work done by the ethnographer, something that is less likely to happen in other ethnographies (Edgeworth 2010, p.61).

Theoretical Perspective

A theoretical perspective makes certain assumptions about society and how it functions. It helps to integrate the information gathered during research as well as give it meaning. Most often, no one perspective is best in all circumstances, and it can be beneficial to combine several different

compatible perspectives.

There are several important aspects that are incorporated into this theoretical perspective that come out in the methodology as well. First is the use of reflexivity to acknowledge the role of the researcher, both in how that position may affect my views and in how my presence affects the data being collected. This is reflected most strongly in Chapter 5 where data sources and collection methods are discussed. In addition to trying to be actively reflexive, a critical realist stance has been adopted. Critical realism is a middle ground between positivism and some of the more extreme versions of relativism that have been brought on by postmodernism. There is a 'truth' that can be uncovered through empirical observation. However, people's observation of the world is heavily influenced by many factors, and how they observe the world greatly affects their understanding and knowledge of the world around them. Critical realism acknowledges these issues, but still holds that people can learn about that social world, in this case through empirical observation.

There are different ways ethnography is being used to evaluate archaeological practice, and have shown that such works have a positive effect on archaeology and can foster questions and developments that improve the practice. Unfortunately, an in-depth study of this relationship regarding its impact on experimental archaeology has not been undertaken. Many questions arise when we began to think about the relationship between presentation and acceptance:

- How is experimental archaeology presented?
- Who are likely to present experimental archaeology in certain ways?
- Who identify themselves as experimental archaeologists?
- What are the impacts of different sorts of presentation?
- What, if any, narratives and metaphors affect presentation?
- How is experimental archaeology accepted by the wider archaeological community?
- What, if any, narratives and metaphors affect acceptance?

Addressing these questions can encourage productive ways of designing, conducting, and presenting imitative experiments in archaeological research. The critical research framework developed here addresses these questions in a manner that allows this to happen. The theoretical perspective and methodological framework proposed here addresses these questions by incorporating both quantitative and qualitative data from ethnographic research.

Taking a perspective that values qualitative results, introspection, and the recognition of multiple viewpoints requires introducing some conventions that are not often seen in academic

archaeological writing. One which most readers will probably have noticed is the occasional use of the first person. In using the first person, the goal is to identify statements, actions and thoughts that are primarily my own. It is important to realize that this framework acknowledges the fact that the situations described here are fluid and can be altered.

Methodological Framework

Ethnographic techniques, discussed here, were used to gather primarily qualitative data. The aim of this was to gather information on how experimental archaeology is presented and accepted, and gather narratives that have been constructed on this topic. Forms of quantitative data also played an important part in this framework. The use of them here is an attempt to supply a more objective foil to the narratives of experimental archaeology. The aim of this framework is to combine the use of a reflexive, qualitative approach with quantitative data to reach a holistic view of experimental archaeology.

Project Focus

This project focuses on experimental archaeology as it is practised 'academically'. There are several guidelines developed here to help define this criterion: the evidence in question should relate to activities in a university or other recognized research institution and/or have been published in an academic book, journal, or presented as a poster or conference paper.

This focus on academia does not represent a slight towards experimental archaeology as it is practised in other sectors. A wide range of work either has been or is currently being conducted on related activities, such as archaeoparks, open-air museums, and public archaeology (several examples can be found in the *EXARC Journal*). However, this research focuses on experimental archaeology's development within archaeology and on the academic use of the methodology. Nonetheless, practical experience in experimental archaeology shows that the lines between academic/public/etc. are rarely clearly drawn. Hence, when it was necessary or useful to cross these lines during the course of research, I did so. Even though it is important to have a clearly defined research area, a holistic understanding is the primary aim of this research.

The scope of the study has been hard to limit. Despite what some may initially think, there is a lot

of experimental archaeology being done in many places. Therefore, there had to be some geographic limits put in place. These were primarily generated by geographic location and language boundaries, but also the literature and personal connections made by the archaeologists being studied. The primary focus has been in the UK and the US. This is due to the availability of literature in English, and to the need to limit the study area to a manageable size.

Historically, there have been strong links between work done in Northern Europe and people working in the UK. This link also exists among a few key people in the US and Northern Europe. This can often be traced to international work done at the experimental archaeology centre in Lejre, which dates back to the 1960s. When material has been available to flesh out further these issues, it has been used; however, due to the wide breadth of the topic, this study is in no way exhaustive.

The collection of evidence based on published information was not geographically limited, but was defined by the language in which it was available. An effort has been made to review experiments available in English, despite the location of their origin. Ethnographic evidence was based primarily in Britain due to access to resources and the time available, but primarily because there is a growing interest in experimental archaeology in this area that inspired the current research. To increase the geographic scope of the project, and to gauge wider trends in experimental archaeology, two international conferences were attended several times during the research project: the American Society of Archaeology Annual Meeting and the Annual Meeting of the European Association of Archaeologists.

Ethics

The research strategy employed was guided and limited by ethical concerns. Ethics of academic research are always an important and multifaceted issue. This is especially true when the research involves living subjects, in this case, humans. The ethics of conducting historical and ethnographic studies were researched and considered at the onset of this project. An application for ethical approval from the School of Humanities and Social Sciences Ethics Committee was made towards the end of the first year of research.

There are several major issues to consider regarding ethics: consent, anonymity, and the implications of the research for the study subjects. Consent is a major issue, primarily when gathering data ethnographically. Many believe that people must be able to give consent to be

researched and should also have the right to withdraw that consent at any time. This is to avoid any type of deceit being involved in the research and to respect basic human rights to autonomy (Hammersley & Atkinson 2007, Chapter 10).

However, informing all study subjects, especially for such a wide research topic as this thesis, can not only be impractical, but it also has the potential to limit access to information that would otherwise have been available. This is illustrated best in the context of an academic conference. In such a situation, it is almost impossible to obtain the consent of every attendee and presenter. In deciding when it was ethically appropriate to contain consent, subjects were divided into three general types: those subjects observed in public (such as conferences and seminars), those observed in private (those conducting experiments or research), and those asked directly to participate in interviews or questionnaires.

For the purpose of this research, data based on published materials or purposely made public in an academic context (and therefore falling into the first group of subjects) have been cited and referenced, as such material would normally be in any academic paper. This applies to published articles used for historical research as well as information gathered during conferences and seminars. One exception is that direct quotations taken from presenters and attendees have been used only with their expressed consent. The other two subject groups were given an information and consent form. The form (Appendix 2) makes it clear that participation was voluntary. My contact information, as well as that of my supervisor, was included in the form so that participants could rescind their consent.

Closely tied to consent was the option for subjects to remain anonymous if they so wish. All intellectual material (such as ideas, published/unpublished works, identified interviews, etc.) was cited appropriately so that intellectual rights were respected and acknowledged. However, each subject that completed a consent form (groups two and three, as well as members of group one from whom direct quotations were taken) was given the option either to remain anonymous or allow their names to be used in the final published results. Data from the online questionnaire were held anonymously.

The final issue was the impact of the research on the study subjects. Such impacts can take place during and after research. There is the possibility that being observed can cause anxiety, primarily due to the fact that subjects feel they may be judged on their actions or statements (Hammersley &

Atkinson 2007, pp.213–219). A judgmental tone or approach was consciously avoided during observation and interviews, and attempted to remain as unobtrusive as possible. It is also hoped that the ability for informed subjects to request to be anonymous or revoke consent helped to alleviate anxiety or fear.

Perhaps more of an issue is the implication of the research after the publication of results. Often research is published for an audience other than the subjects being studied, and it can be 'a conduit that allows interpretations and influences to pass in both directions, and final products thus may take a variety of forms and be addressed to different audiences' (Davies 2008, p.6). However, in this case, the research was purposely being conducted so that it could be presented to other archaeologists. To alleviate harm to participants, the evidence in this thesis is presented in a critical, but objective manner. In addition, those that took part in the oral interviews were supplied with a copy of the final edited transcript so that they could review it and make comments or changes.

As required by the School of Humanities and Social Sciences, an application for ethics approval was submitted to the HuSS Ethics committee in August 2009.⁴ Approval was given in September 2009, although research planned and/or conducted before this date still considered the issues discussed above.

Research Methods

In order to collect an adequate representation of data regarding the under study, it was important to use a variety of methods and sources. Consideration was taken in deciding how to approach, observe and record the different ethnographic case studies. Issues regarding gaining access to data, choosing sources and recording information are discussed below.

Fieldwork

Entering the field requires more preparation than developing research questions and deciding whom to study. The researcher must also work out a way to 'gain access' to the subjects they wish to study. While one can show up to a conference and gather information on how experiments are presented to the wider archaeological community, even this seemingly simple process requires a formal process that must be undertaken (registering, paying, displaying a badge, etc). Being able to observe participants more closely can rely heavily on 'intra- and inter-personal resources and strategies that

⁴ The Department of Archaeology was originally part of the School of Geography, Archaeology and Earth Resources, which had different ethical guidelines. In August 2009, Archaeology became part of HuSS.

we all tend to develop in dealing with every day life' (ibid 2007, p.41). Gaining access requires the ability to use these skills to negotiate with 'gatekeepers'—people who either formally or informally control the researcher's access to the field (ibid. 2007, p.27). One of the first steps, then, in gaining access is to become aware of who one's gatekeepers are and identify the best ways to approach them. This can change depending on the context and what information is required.

For example, observing a conference had different issues regarding access than being allowed to observe the educational practices in a university setting. At a conference, it is easy to assume the role of participant-observer by taking part in the conference and taking observations of people's presentations and actions without necessarily having to engage a gatekeeper. When observing a class, it is usually necessary to obtain the permission of the lecturer, and the students may need to know the role that you are taking.

Once access has been both formally and informally granted, the ethnographer still has to overcome the prejudices and concerns of the subjects under study. People are often concerned about what kind of person the researcher is and whether they can actually be trusted. This is why impressions that may limit access must be avoided (ibid 2007, Chapters 3 & 4).

Working as an ethnographer in a familiar social context can be even more difficult since fellow academics often have preconceived notions of the ethnographer's role or place. Erdur experienced a similar dilemma as an anthropologist working closely with archaeologists (Erdur 2006). Participants are not the only people that can create relationships based on personal bias; it is important that the ethnographer not choose to focus on people and events they find most likeable or exciting (Hammersley & Atkinson 2007, Chapter 4). For this study it was just as important to record the actions and observations of unfamiliar subjects as it was to record information from more familiar informants. Not only did this realisation help to diversify the sources used for gathering information, but it also acted as a check against becoming too biased in the evaluation of the evidence.

Sources

The types of data collected through an ethnographic study vary in form and type. By studying people whose defining characteristic is that they work directly with materials, gathering information on material artefacts was key to research. Ethnography is often associated with interviews and observing participant action, and it is therefore easy to forget that material artefacts have a great

influence on social life.

Documents produced by the society being studied can provide a wealth of information. Such items can consist of forms (such as 'health and safety'), published texts, flyers, posters and even fictional accounts. Over the course of research, documents can be especially helpful in developing ideas for analysing the data. For example, reading Peter Reynolds's description of what experimental archaeology is can raise a multitude of questions about the definition of social practices, relations between experiments, and other acts, etc. (Reynolds 1999).

It is important when conducting interviews to consider whom to interview, and often informants offer themselves up for the interviewing process or openly discussed issues regarding experimental archaeology. Especially when undertaking participant observation, formal and informal interviews can be initiated by either the ethnographer or the subject (Hammersley & Atkinson 2007, Chapter 5).

Furthermore, gatekeepers and other informants may also influence who will be interviewed, and this can have positive or deleterious effects which must be taken into account by the ethnographer. In terms of participant observation, interviews can consist of spontaneous conversations and can often reflect the setting in which the interviews take place. Still, such data must be considered in context, and the spontaneity of interviews does not automatically mean that they reveal the 'truth' about a situation (ibid, Chapter 5). Another method employed in gathering the opinions and thoughts of the subjects was an online questionnaire. This questionnaire was meant to gather a wide range of thoughts on experimental archaeology from a larger group than is normally observable one-to-one. The questionnaire responses can be seen in Appendix 1 and is discussed specifically in Chapter 5.

Recording Data and Evidence in the Field

Data can be recorded using a variety of methods. The method most associated with ethnography is the field journal; however, modern advances in technology have made it much more manageable to integrate other methods, such as video recordings, audio recordings and digital photography. Video and audio recording participant action may seem like a catchall technology. While many rely on such techniques, there are pitfalls. Goodwin (2006) relied almost exclusively on data gathered using video recording since the main interest was human action. However, he acknowledged that it was still selective in ways, but it did record how 'details of language use, embodied action, and structure in the environment mutually inform each other' (Goodwin 2006, p.52).

This is a prime example of how analysis and methodology play off one another. Most often, the interest of the ethnographer will influence the methods used to collect data. While some video recording was employed during observation for this thesis, the equipment used was as small and unobtrusive as possible. Audio recording was employed for one-to-one interviews as well as group interviews with students.

Digital photography can both help to catch human action and to record documents and artefacts. Most often, pictures can be quickly taken of posters and texts as well as scenery, buildings, and materials. Texts can also be recorded using old-fashioned methods, such as by hand. Other than the field journal, digital photographs comprise the majority of evidence gathered during fieldwork for this study. These photographs were taken with a small camera in an attempt to make the process as unobtrusive as possible.

It is best to keep such notes together and organised in one area for easy reference, and the field journal supplies the suitable medium. There are some drawbacks to the field journal, the primary issue being the amount of information that can be recorded by hand. Initially, this was seen as a hindrance because of the difficulty of recording observations as they were made. It was also not always appropriate to take notes during observation, something that others have noted as well (Edgeworth 2006a, Whittaker 2004). Consideration went into whether it was the best time to take notes and if it would affect participants at all. Notes were also supplemented heavily with photographs and audio recordings.

This discussion has given insight into the ideas behind the methodology that was used over the course of this study. These methods focused primarily on gathering qualitative data. However, one important aspect of the research was a review of articles from archaeology journals which employed imitative experiments. This collection of more quantitative data acknowledges the importance of written text in studying academic subjects. The specifics of this and the relevant methods and context for each case study will be presented alongside the data gathered in the following two chapters.

Part II includes information on the different case studies and data sources. This includes summaries of the different observation case studies, individual interviews, a discussion of the literature review and the online questionnaire as well as a description of the survey of archaeological journals and the

results from this survey.

PART TWO

When people think of ethnographic or anthropological research, they often think of a researcher undertaking a long-term, in-depth study of one small group of subjects. However, for this research, different ethnographic methods and sources were employed, a technique that was advocated by Davies (2008), but which was also necessary to allow the study of such a wide subject area and to address the overall impact and perceptions of experimental archaeology.

Initially, a wider view of experimental archaeology was taken that looked at the entire process, from the perceived lack of imitative experiment in archaeological research to how students were educated regarding the subject and how it has been presented to the public and other academics. Based on this initial research, the decision was made to focus primarily on how experimental archaeology is perceived and valued in academic archaeology. Therefore, in the early stages of the research, several ethnographic projects were undertaken that did not develop this topic, but instead looked at issues concerning education, skill acquisition, public presentation, etc. These sources are not referred to in detail here, but they did affect the study in that they helped to develop my abilities as an ethnographer and helped to shape the final research questions.

The different sources are presented here in two different chapters. Chapter 4 focuses on sources reflecting personal experiences with experimental archaeology while Chapter 6 contains the sources which reflect how experimental archaeology is presented. The different sources for each chapter are classified in relation to the methodologies used to collect them: Chapter 5 includes the individual interviews and online questionnaire; Chapter 6 includes the participant observation of conferences, a qualitative literature survey, and a quantitative literature survey. For each individual source, the context and any relevant developments or anomalies are discussed. The methods described in this chapter were informed by the theoretical and methodological framework discussed in Chapter 4.

Chapter Five: Individual Interviews and Anonymous Questionnaire Results

This chapter describes data gathered from individuals regarding their experiences with, and ideas about, experimental archaeology. The first section looks at individual interviews with researchers from both the US and the UK who incorporate imitative experimentation into their work. The second section contains the results from an anonymous online questionnaire. The resulting data are very different, yet similar trends can be seen. The results are primarily qualitative in nature and reflect personally held beliefs regarding experimental archaeology that may not be presented in other media, such as publications and conference papers.

Individual Interviews

Nine of the interviews conducted during the research period were included in the data analysed. A short introduction to each interviewee and the context of the interview follows. Interviewees were asked to sign the Information and consent form, discussed previously in Chapter 4. This form can be found in Appendix 2.

Seven of the nine interviews were conducted one-to-one, with the subject being interviewed face-to-face. For the other two, the questions to the interviewee either via post or email, and they sent back their written responses.

The questions were prepared in advance and focused on getting the interviewee to discuss their personal history with experimental archaeology, including how they use the method and why they were drawn to it, within the context of historical trends that have been discussed in the literature (Chapters 2 and 3). These questions that were asked according to a basic list (see Table 1). Further more, the questions were then tailored to the interviewee, both before and during the interview to include questions about paper or books that they had written on the subject, projects that they were associated with and other relevant factors. Interviews done in-person were recorded with a small,

hand-held tape recorder. Notes were taken during the interviews with a standard pen and paper. The recordings of the interviews were professionally transcribed. Transcriptions were then edited to remove repetitive and distracting words, phrases and grammar, but this editing was done lightly so as to maintain the voice and style of the interviewee. These transcriptions are located in Appendices 3–11.

Standard Question List
Questions 1: What initially caught your interest in experimental archaeology?
Question 2: When you first began to conduct experiments, were there many other people also using experimentation in archaeological research? Were they often 'professional'/'academic' archaeologists or 'amateurs'?
Question 3: Some link an increased interest in experimental archaeology with an increase in scientific approaches during the 60s-70s. What are your views on this?
Question 4: In your interactions with other experimental archaeologists, what seems to be the primary reason why they turn to experimentation to augment other archaeological research?
Questions 5: What effects of post-processualism on the use of experimentation over the past 30 years have you seen?
Question 6: Do you think there was a decrease in the 80s in the appreciation for experimentation in archaeological research?
Question 7: Are some sub-disciplines of archaeology better apt at incorporating experimentation?
Question 8: What overall trends did you notice while active in experimental archaeology taking place in academic archaeology regarding the experimentation?

Table 1: List of Standard Questions for Individual Interviews

In general, interviewees were chosen based on whether they employed experimental archaeology in their own academic research. Several of the interviewees have actively worked to promote experimental archaeology as a method by writing essays on topics such as its history and application or working with organisation that promote its use in research and education. There was also an attempt to have a relatively equal sample from the US and the UK, with several of the interviewees having done archaeological work in both the UK and the US, as well as in Europe. This has included experimental and experiential work for research and at archaeological open-air centres. The interviewees also vary in age, and the timescale in which they were interactive with experimental archaeology, as briefly discussed in Chapter 3. For the exception of John Coles, all of the researchers interviewed are currently or recently active in experimental archaeology, either through research or as part of the experimental archaeology community.

Interview One: John Coles

John Coles's main works on experimental archaeology were discussed in Chapter 2 (Coles 1979, Coles 1973). Despite the fact that these books were published over three decades ago, they are still prominent in the field of experimental archaeology, as illustrated by the fact that *Experimental Archaeology* was reprinted in 2010. While the main focus has been on his work in experimental archaeology, he has also made major contributions to Scottish, Bronze Age and wetland archaeology as well as to the study of rock art (Harding 1999, p.vi). Coles was most active in conducting experiments as part of archaeological research, and teaching on the topic, from the 1960s up until 1980s. In addition to publishing an extensive amount on experimental archaeology (Table 2), Coles was also one of the editors of BAE, which was in print during the 1980s (see Chapter 3).

Condensed Bibliography of Works by John Coles on Experimental Archaeology (Paardekooper 2009b)
1962. European bronze age shields. <i>Proceedings of the Prehistoric Society</i> , 28, pp.156–190.
1963. Archaeology by experiment: “Bronze age” shields made at Cambridge which establish that leather was for use, bronze for ritual and show. <i>The Illustrated London News</i> , pp. 299–301.
1967. Experimental archaeology. <i>Proceedings of the Society of Antiquaries of Scotland</i> , pp. 1–20.
1973. <i>Archaeology by experiment</i> , London: Hutchinson.
1977. Experimental archaeology: theory and principles. In McGrail, S. ed. <i>Sources and Techniques in Boat Archaeology</i> , Oxford: BAR Supplementary Series 29, pp. 223–243.
1977. Experimental investigations in hurdle making, <i>Somerset Levels Papers</i> , 3, pp. 32–38 (with Darrah, R.J.).
1977. Parade and display: experiments in Bronze Age Europe. In Markotic, V. ed. <i>Ancient Europe and the Mediterranean. Studies presented in honour of Hugh O. Hencken</i> , Warminster: Aris & Phillips, pp. 50–58.
1979. An experiment with stone axes. Clough, T. & Cummins, W., eds. <i>Stone Axe Studies</i> , York: Council for British Archaeology, Research Report 23, pp. 106-107.
1979. <i>Experimental archaeology</i> , London: Academic Press.

Table 2: Condensed bibliography of works by John Coles on experimental archaeology

I initially contacted Coles via email, and he agreed to answer several written questions, indicating a preference for me to send the questions and consent forms through the post. Considering this quotation from Bo Gräslund (1999, p.vii), this should not have been surprising:

John is probably one of the most productive letter-writers in the history of archaeology. Sticking to pencil and typewriter, he spurts out thousands rather than hundreds of letters in a single year.

The interview questions and a consent form were mailed to him in the post, and a hand written response was received. A transcribed version of the response can be seen in Appendix 3.

Interview Two: Martin Bell

Martin Bell is a professor at the University of Reading and is head of the Archaeology Department there. Reading is one of the archaeology departments in the UK that actively promotes the use of experimental archaeology. Since he first became interested in experimental archaeology as a student in the 1970s, Bell has gone on to done work with the Experimental Earthworks Project in the UK, one of the most extensive and longterm experimental archaeology projects in the country. He has also worked with Butser Ancient Farm as a member of the board. In addition to his own research, Bell has also written about experimental archaeology and its applications and historical development (for examples, see Lawson et al. 2000, Bell 2009). I initially met Bell at an EXARC conference in Cardiff, Wales in 2010. Afterwards he was contacted via email and an interview was scheduled for the 25 May 2010 at his office in the Department of Archaeology at Reading.

The interview focused on issues in Britain regarding experimental archaeology, particularly its historical development in the 1970s and 1980s, as well as more recent developments. Bell also discussed the Earthworks Project, the work done at Butser, and work being done at Reading (Bell Interview, Appendix 4).

Interview Three: Bill Schindler and the Land of Legends

Bill Schindler is an Assistant Professor of Anthropology at Washington College, Maryland, US and has been active in experimental archaeology research for the past two decades. His interest in experimental archaeology stems from a long interest interested in primitive technology. Schindler was one of the four experimental archaeologists interviewed from the United States. Schindler currently teaches the method at an undergraduate level. In addition to research and teaching, Schindler is also active in the SPT and in ReARC, two organisations that support the use of craft-skills and experimental archaeology and which are discussed in further depth in Part III. In addition to experimental archaeology, Schindler is interested in primitive technology.

I met Schindler at the SAAs in the spring of 2010, where he mentioned that he was planning on doing experiments at an open-air museum and experimental centre in Europe. Schindler had received a grant to travel to Lejre, Denmark, to undertake an experiment on protective garments and how they potentially affect the penetration of projectile points.

The Land of Legends, Centre for Historical-Archaeological Research and Communication (Sagnlandet Lejre), formally the Lejre Experimental Centre, was established in 1964 as an archaeological experimental centre by Hans-Ole Hansen. Much of the work that takes place there concerns public education. Lejre is located on 43 hectares in Lejre county, Denmark. There are several reconstructions from different archaeological and historical periods (Lyngstrom 2011, pp.128–30).

Since its foundation, researchers have been coming from all over the world to Lejre to perform experiments, dealing with a broad variety of subjects and artefacts. Much of this work has been supplemented by grants from the centre, which are usually given out annually, totalling DKK 150,000 (approximately \$26,869US or £16,881GB). This programme of research grants has existed at least since the mid 80s, when a fixed sum was set aside specifically for experimenters, from both Denmark and abroad (Lyngstrom 2011; Sagnlandet Lejre n.d., Research Grant; Hansen 1986). Portions of the grants are usually assigned to an experiment that investigates a wide topic; in 2010, it was ‘War and Conflict’. A description of the theme was on the centre’s website, as well as the ethos behind inviting researchers to conduct experiments at the centre (Sagnlandet Lejre n.d.):

Experiments dealing with the same issues, materials, techniques or hypotheses in relation to the war and conflict theme, will be invited to take place during a particular workshop week or weeks in August 2010. These workshops are intended to inspire cooperation, interaction, networking and exchange of ideas between researchers.

Unfortunately, in 2010 the grant had been cut back because of financial issues, but there was hope that it would return to its normal levels in the near future.

The interview with Bill Schindler was conducted on 4 August 2010 outside at the Centre while he prepared his materials for the experiments that were to take place later in the week. The transcription of the interview can be found in Appendix 5.

The first portion of the interview focused on the experiment that he was conducting at the centre,

and we discussed experimental archaeology in the US, often comparing it to Europe. There was a temporary break in the interview, as he had to leave for a short period to check on one of the materials for the experiment. The second portion focused on the Living Archaeology Project Schindler undertook as part of his graduate studies.



Figure 8: Background: experimental set up; Foreground: projectile point to be used in experiment. Photo: Author

In addition to the interview, the experiment Schindler had come to the centre to conduct was also observed (Figure 8). This took place Saturday 7 August. Schindler described the experiment in the interview (see Appendix 5).

Interview Four: Alan Outram

The next interview conducted was with Alan Outram, from the University of Exeter, UK. Outram received a BA in Archaeology from the University of Durham, UK; aMSc in Environmental Archaeology and Palaeoeconomics at the University of Sheffield, and a PhD at Durham (Outram 1998). During his time at university Outram was introduced to the idea of experimental archaeology, and he was able to visit Butser Ancient Farm while Reynolds was still alive and over seeing the work being done there. Outram incorporated an experimental methodology into his PhD research, and later went on to work at the University of Exeter for over 12 years. While there he has been a key part of the MA in Experimental Archaeology that is taught there.

Outram is a zooarchaeologist who has incorporated experimentation into his own research. He also

regularly conducts fieldwork in the US and in Kazakhstan. In addition, he has written about presentation concerns with experimental archaeology in the journal *EuroREA* and edited the only *World Archaeology* volume to focus on research that employs experimental archaeology as a method (Outram 2005, Outram 2008). Outram served as a good choice for an interviewee because of his own experimental archaeology experience, both in research and in the experimental archaeology community, and because of his role in shaping the first MA in Experimental Archaeology.

Outram was interviewed on 6 January 2012 at his office in the Archaeology Department at Exeter. The transcript can be found in Appendix 6.

Interview Five: Richard Evershed

Richard Evershed is a chemist from the University of Bristol who, over the years, has applied his specialised knowledge to archaeological questions. Evershed graduated from Trent Polytechnic, Nottingham, in 1978 with a BSc in Applied Chemistry. He received his PhD in Chemistry from the University of Keele. Currently, Evershed is the Director of Bristol Biogeochemistry Research Centre (Evershed, n.d.). While not an archaeologist, Evershed's 'hard' science background and interdisciplinary work enabled him to provide a different view to how experimentation is employed in archaeological research as compared to the other interviewees.

In terms of archaeological research, Evershed looks at organic residues in an attempt to ascertain what they can tell us about human activities (Evershed n.d.):

The basis of our analytical approach is to match the properties (usually molecular structure) of individual compound(s) present in archaeological materials to those of modern plants and animals likely to have been exploited in antiquity. We study the processes of decay of organic residues during the prolonged burial of artefacts, and the effects of human intervention, such as those resulting from refining or mixing of natural products in the past. The principal areas of investigation include (i) analysis of organic residues in the study of ancient pottery vessels and other artefacts, (ii) use of stable isotope in the study of ancient diet and agriculture, (iii) study of chemical marker compounds in soils at archaeological sites, and (iv) investigations of di- and triterpenoid components of ancient tars, pitches and resins and resin-based artefacts.

Evershed has done work with another interviewee, Alan Outram (for example, Outram et al. 2011). It was through Outram that I came to contact Evershed and interview him regarding his experience with experimental archaeological research, which spans from the 1990s to the present. The interview was conducted on 19 January 2012 at his office at Bristol University. The transcription

can be found in Appendix 7.

Interview Six: Metin Eren

Metin Eren was on the Experimental Archaeology MA course the same year I was and is now at the University of Kent, in Canterbury. In addition to the MA at Exeter, Eren has received a BA in Anthropology from Harvard and an MA and PhD in Anthropology from Southern Methodist University (Eren 2012).

Eren is an experienced flintknapper and has conducted and published several experiments on stone tools, butchery, and taphonomic processes (Eren & Sampson 2009; Willis et al. 2008; Eren et al. 2010). While Eren has only been active in archaeology for the past decade, he has conducted and published several archaeological experiments. He has also studied and conducted experiments in both the US and the UK, giving him experience in how it is approached in both countries. Eren also provided to opportunity to interview someone who had undergone specific training in experimental archaeology, and who went on to continue to use it in academic research. Eren was interviewed at his flat in Canterbury, 26 January, 2012. The transcription of the interview can be found in Appendix 8.

Interview Seven: Bruce Bradley

Bruce Bradley is also a well-known flintknapper and is currently at the University of Exeter. He is also my second supervisor. Bradley received a BA in anthropology with a minor in geology from the University of Arizona and his PhD in archaeology from the University of Cambridge; his thesis employed experimental methods (Bradley n.d.).

Bradley has conducted experimental work in the US and the UK and conducting archaeological work in the public, private and academic archaeological sectors since the 1960s (for an example of experimental work, see Aubry et al. 2008). As with Schindler, Bradley was also drawn to archaeology through an interest in primitive technology, and moved into academic research. He is one of the primary members of the staff that runs the MA in Experimental Archaeology at the University of Exeter. Bradley was interviewed on 2 March 2012, at his office in the Archaeology Department at the University of Exeter. The interview can be found in Appendix 9.

Interview Eight: Linda Hurcombe

Linda Hurcombe received a BA in Archaeology from Southampton University and a PhD from Sheffield University. Her doctoral research focused on microwear analysis of obsidian tools, for which she learnt to knap, and she has also conducted experiments producing different sorts of microwear on stone tools with a variety of materials. Hurcombe was appointed to a permanent position at Exeter in 1996, where she set up and then directed the MA in Experimental Archaeology, which was the first of its kind in the UK. She is also the director of the MA in Material Culture Studies at the University of Exeter (Hurcombe n.d.).

In addition to using experimental archaeology to shed light on organic, perishable material culture, Hurcombe has also contributed to the discussion of experimental archaeology in general archaeology text books (for example, see Hurcombe 2004, 2008) and has written on the important theoretical and methodological aspects concerning material culture studies. In addition to her research in the UK, Hurcombe has also received grants to do work at Lejre in Denmark. Hurcombe, out of all the interviewees, was the only one to have a strong interest in textiles and other fibre oriented technologies. As discussed in her interview, while learning about ancient technologies in her studies, Hurcombe went out of her way to talk to specialists and gain hands on experience. Hurcombe was interviewed on the 2 March 2012, at her office in the Archaeology Department at the University of Exeter. The interview transcript is located in Appendix 10.

Interview Nine: Maria-Louise Sidoroff

Maria-Louise Sidoroff is an American archaeologist interested in experimental archaeology and ethnoarchaeology and has also been involved in fieldwork. She specializes in prehistoric ceramic analysis and was the other woman to be interviewed. She is also the only interviewee who is not affiliated with a university. Sidoroff received a BS in Anthropology from Columbia University, US; an MA in Ceramics from Montclair University, US; and a PhD in Anthropology from the Union Institute and University, US.

From 1989 to 2001, she was a member of the Board of Directors of the Society of Primitive Technology. Sidoroff was a Founding Director of the organization and acted as an editorial advisor for articles on ceramics and education as well as being the author of several articles for the *Bulletin of Primitive Technology*, a primary publication venue for articles on primitive technology, reconstructions and archaeological experiments in the US (Sidoroff & Butler 2012). This long term

experience in US archaeological and primitive technology circles provided Sidoroff with a unique experience in comparison with the other interviewees.

The interview questions were sent to Sidoroff via email, and she responded with her written questions via post. Her responses can be found in Appendix 11.

Online Questionnaire

Using Survey Monkey, an online survey-conducting programme, a questionnaire was run from March to September 2010. Information about the questionnaire was spread in various ways, for example, by contacting colleagues in other departments via email (Figure 9), both in the UK and in the US, asking if they would pass it on to interested parties. A similar text was also posted on the Facebook group, Experimental Archaeology. A total of 110 people began responding to the questionnaire, with 69 completing it. A copy of the 69 questionnaire responses is in Appendix 1.

Hello,

I'm currently working on my PhD at the University of Exeter (UK). I am researching the history and current practice of experimental archaeology from an anthropological standpoint. I have created a survey to gather people's impressions of experimental archaeology. The survey is for all types of archaeologists, not just those interested in experimental archaeology. It is available online and is only 12 questions long, so if you're interested please take some time to fill it out.

The link is: http://www.surveymonkey.com/s/experiment_in_archaeology_survey

Thanks for your time and have a nice day.

Kind Regards,

Jodi Reeves Flores
PhD Candidate
Department of Archaeology
University of Exeter

Figure 9: Email sent out when gathering responses for online questionnaire

As discussed in the previous chapter, this online questionnaire was conducted to complement the more in-depth discussions that took place in the individual interviews, and to further investigate people's views of experimental archaeology and its place in archaeological research. Several of the

questions were designed to understand the demographics of the people responding to the questionnaire, including geographic location, career, education, and relationship with experimental archaeology. Several open ended questions were asked so that respondents could describe experimental archaeology from various view points. They were asked to describe the method, explain their experience with it, and whether they had any addition comments to add not addressed in the questionnaire. Other more specific questions aimed to address how respondents viewed experimental archaeology in relation to archaeological research, such as what subfields it was most applicable to. The following tables and figures summarise the answers to the majority of the questions, primarily the ones that were later analysed.

The geographical location of the respondents is very UK dominant, as can be seen in (Table 3). Over half of the respondents were from the UK, with 20 percent resident in Continental Europe. While less than 6 percent of respondents were located in the US, when combined with responses from Canada 14.5 percent were from North America.

Geographic Location		
Assigned Categories	Response Rate (%)	Response Count
UK	60.9%	42
USA	5.8%	4
Continental Europe	21.7%	15
Australia	2.9%	2
Canada	8.7%	6

Table 3: Online questionnaire: Geographic location of respondents

Respondents were asked about their level of training and education. The results are given in (Table 4). Where 'other' was indicated, respondents were asked to specify in a text box. Several respondents reported having multiple degrees (for example, Respondents 3 and 7 reported having a MA and a BA) and some, such as Respondent 16 listed their MA by research in the 'other' category. This has been adjusted for in Table 4 so that the highest degree achieved by each participant is reflected in the results represented in the table. Where a respondent listed both an MA and an MSc or a degree and then chose 'other', both responses were recorded in the table. Additionally, six respondents reported receiving some form of professional training such as an apprenticeship, technical training, etc. The degree awarded did not necessarily have to be related to archaeology.

Training/Education	
Answer Options	Response Count
PhD	20
MA	32
MSc	5
BSc	2
BA	8
Other	10

Table 4: Online questionnaire: level of training and education of respondents

Respondents were also asked to describe themselves in terms of their classification as an archaeologist. The responses are shown in (Table 5). The largest number described themselves as current students, placing them in the position to be aware of both entrenched and developing views of experimental archaeology. Over 24 percent were academic archaeologists, the target demographic of the study.

Which of the following best describes you?		
Answer Options	Response Per cent	Response Count
Professional Archaeologist	17.4%	12
Academic Archaeologist	24.6%	17
Amateur Archaeologist	5.8%	4
Archaeology Student	42.0%	29
Other (please specify)	10.1%	7

Table 5: Online questionnaire: description of respondents' relationship to archaeology

Respondents were asked with which sub-field(s) of archaeology they were most familiar. They were able to choose more than one category (see Figure 10). A third of respondents listed experimental archaeology as one of the categories they were most familiar with. Prehistory was the most popular.

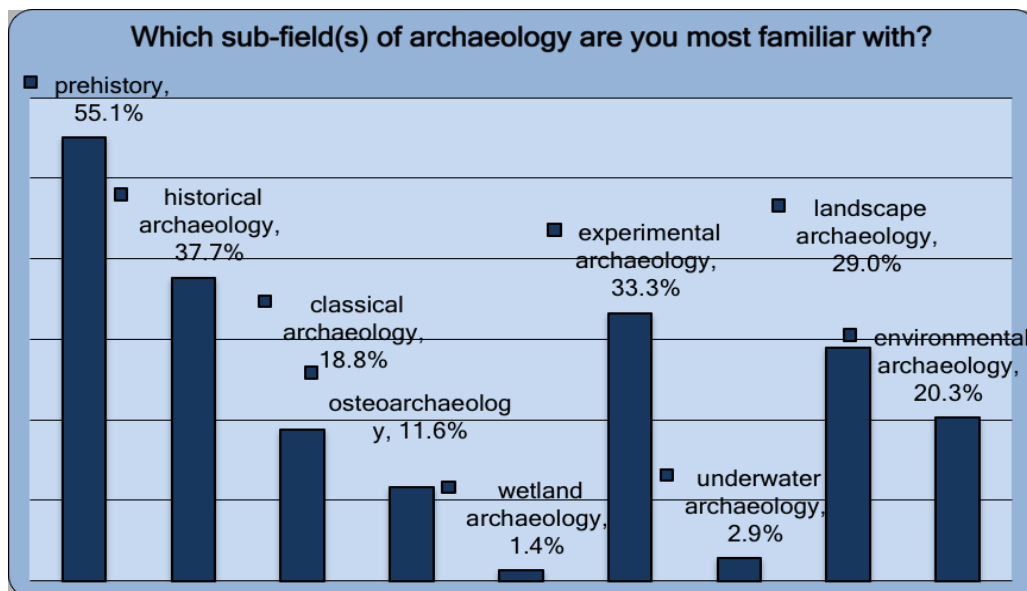


Figure 10: Online questionnaire: respondents' response to the question 'Which sub-field(s) of archaeology are you most familiar with?'

Respondents were then asked to describe experimental archaeology. The original text for each respondent can be seen in Appendix 1, and many of the comments are quoted or referenced in the chapters in Part III. When quoted, the comments were corrected for clarity and grammar. The responses were wide ranging, but over all the most often used words related to replication of artefacts or processes and hypotheses. Respondents also referred to the process of gaining understanding and often used words related to 'testing.' The word 'scientific' was only used several times when describing experimental archaeology, and 'experiential' and 'academic' were used sparingly.

The following figure illustrates how these terms were related in several of the responses. The blue circles represent the terms most often used to describe experimental archaeology. Each circle is linked to white boxes containing quotes from several of the individual respondents that mention the term or idea. This diagram illustrates that the respondents do think of testing hypotheses or theories when they think of experimental archaeology, this is represented by the fact that terms 'hypothesis' or 'theory' are used with 'testing' or 'scientific'. However, also represented in many of the quotes is idea that experimental archaeology refers to replicating processes or artefacts in order to understand more about the past or archaeological remains, either with or without reference to scientific method.

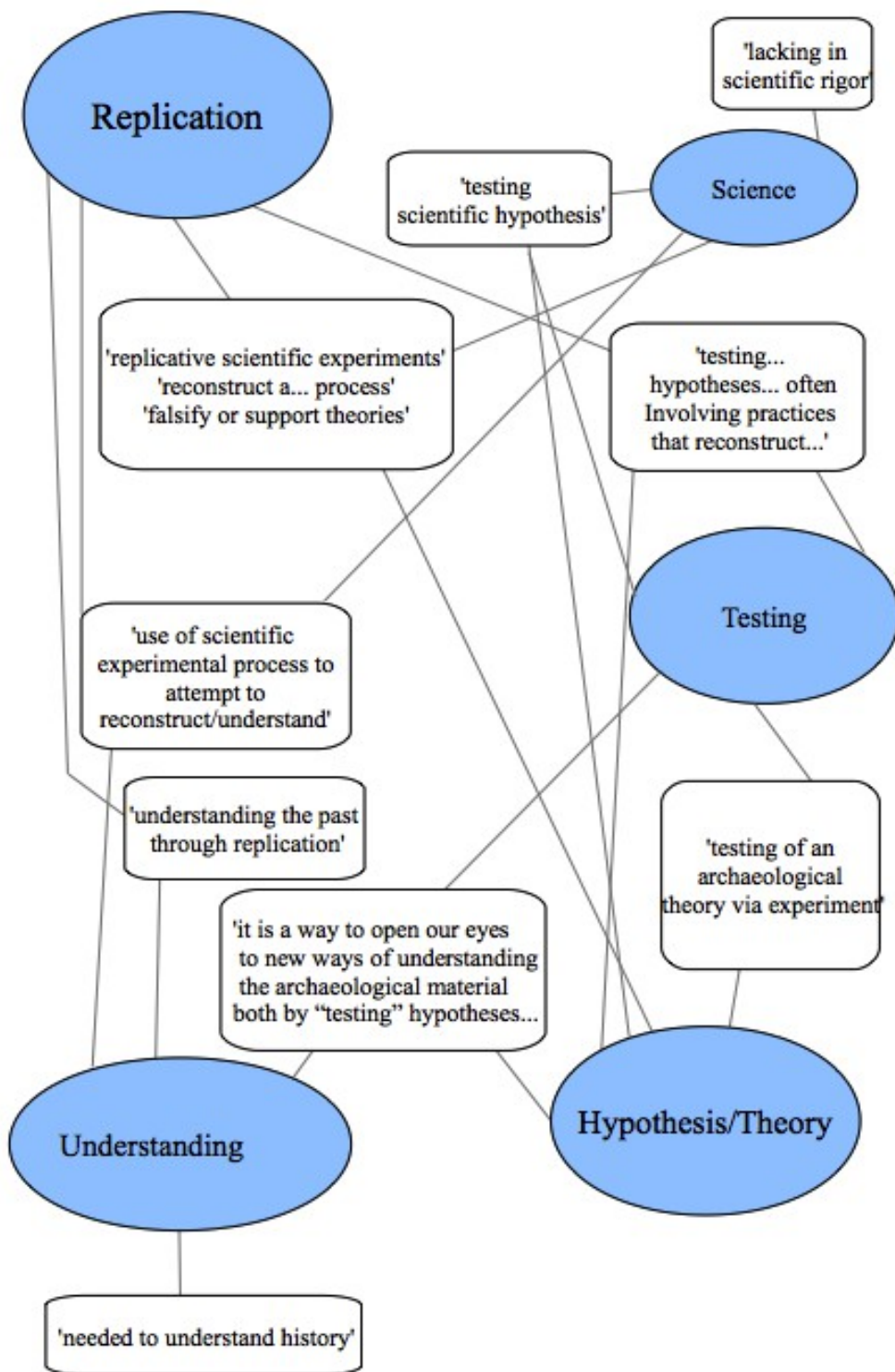


Figure 11: Words and phrases used to describe experimental archaeology. Source: online questionnaire

Respondents were also asked if they had experience with experimental archaeology, and, if so, to describe their experience. Twenty-five respondents responded negatively (see Table 6), indicating that the responses to Question 5 came both from people with experience with experimental archaeology and those without: this offered an opportunity to see how those outside the methodology view it.

Do you have any experience with experimental archaeology?		
Answer Options	Response Per cent	Response Count
No	36.2%	25
Yes (please specify)	63.8%	44

Table 6: Online questionnaire: respondents' experience with experimental archaeology

Respondents who said they had with experimental archaeology were asked to describe this experience. The the original responses can be seen in Appendix 1. Several themes emerged. As with the responses that described experimental archaeology (Question 5), there was often a focus on replicating or reproducing certain processes for knowledge or skill acquisition as well as a drive to understand the past. Following that, respondents referred to experience in replicating processes to use the data for research or using data from previous experiments for research. Experience creating or taking part in reconstructions or replicas was mentioned equally as often as experience in conducting 'experiments' with no mention of testing a specific hypothesis. Other types of experience included teaching, demonstrations or learning; experience at a museum or AOAM; participating or conducting academic research; or testing something, usually a process or artefact. Only one quote indicated testing a specific hypothesis, which was to see whether adopting certain poses presented in Minoan iconography had an effect on the psyche. Table 7 lists these categories of responses. The most popular ('skill and/or knowledge acquisition' is at the top, while the least popular, testing a specific hypothesis, is at the bottom of the list.

Practicing or acquiring craft skills or knowledge of a process	
creating or using reference data for research through replication/experimentation	
creating or taking part in reconstructions or making replicas	the conducting of experiments, but without mentioning a specific hypothesis
Teaching, demonstrations or learning	
Museum or open air site	
Academic research	
Testing, often do not mention a specific hypothesis	
Mention a hypothesis	

Table 7: Descriptions of respondents' experience with experimental archaeology. Source: online questionnaire results

Respondents were asked to evaluate how often they cite or reference archaeology experiments in their research. The results can be seen in Table 8. The majority claim to either occasionally or regularly cite archaeological experiments in their own work or research. This question was another method of accessing respondents' familiarity with experimental archaeology. It also shows that experiments, within the demographics of the questionnaire, are cited and used in archaeological work.

How often do you cite or reference material from archaeological experiments for your own work or research?		
Answer Options	Response Per cent	Response Count
I have never cited or referenced an archaeological experiment.	20.3%	14
I have cited or referenced an archaeological experiment once or twice.	23.2%	16
I occasionally cite or reference archaeological experiments	30.4%	21
I regularly cite or reference archaeological experiments.	26.1%	18

Table 8: Online questionnaire: how often respondents cite archaeological experiments in their research.

Respondents were also asked whether they thought actualistic experiments were applicable to different fields within archaeology. The responses can be seen below in Table 9. The aim of this question was to assess whether respondents viewed experimental archaeology as being more applicable to certain sub-fields than others. Prehistory was viewed as a field where experimental archaeology is most applicable, and this is reflected in the fact that lithics are often mentioned in the open ended question where respondents describe their experiences with experimental archaeology. Additionally, over 50 percent of the respondents described themselves as being most familiar with prehistory (Figure 11).

How applicable are actualistic experiments in the following archaeological sub-fields?						
Answer Options	very applicable	applicable	rarely applicable	not applicable	do not know	Response Count
wetland archaeology	18	21	9	5	15	68
underwater archaeology	14	17	16	6	16	69
landscape archaeology	16	21	12	8	12	69
osteoarchoeology	22	17	11	9	10	69
historical archaeology	24	24	11	2	7	68
prehistory	33	28	4	2	2	69
classical archaeology	21	21	12	3	12	69
environmental	23	21	7	6	12	69

Table 9: Online questionnaire: respondents' evaluation of actualistic experiments application to different archaeological subfields

Respondents were asked if they 'had ever considered doing an archaeological experiment, but decided not to' in order to determine why people would decide to not use experimental archaeology as a method. If they answered yes, they were asked to give the reason why they did not in an open-ended response (Figure 12). Eleven respondents listed lack of resources such a funding, labour, locations, and time as the reason for why they did not conduct the experiment under consideration. One respondent also mentioned lack of 'manual ability'. Other responses varied, but included the experiment being under development, ethical issues, the decision to take a different approach, and doubting the value of the experiment versus cost. Responses for each individual respondent can be found in Appendix 1.

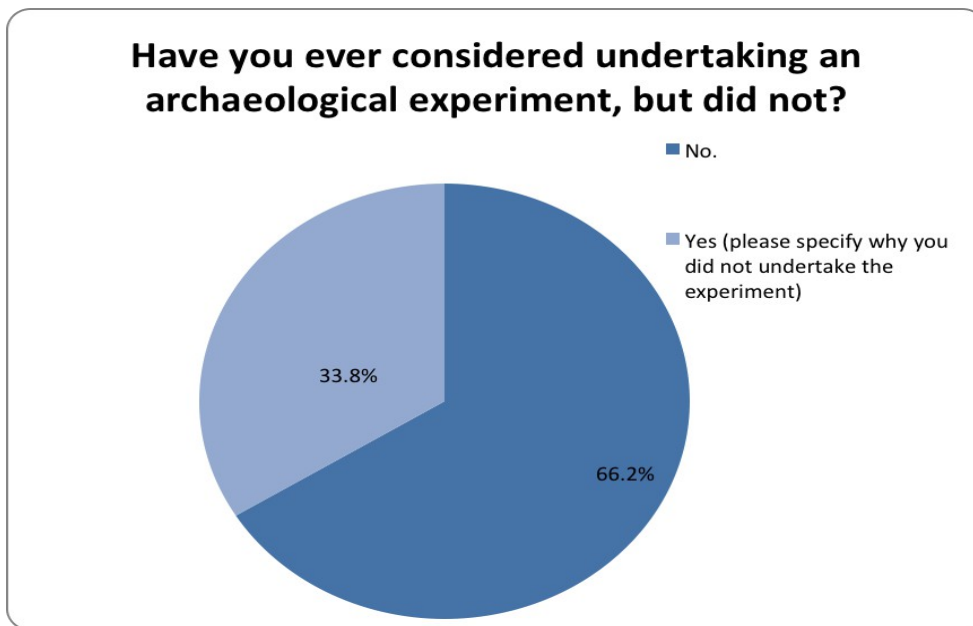


Figure 12: Online questionnaire: percentage of respondents who had considered undertaking an archaeological experiment, but did not.

Respondents were also asked whether they believed experimental archaeology was an acceptable methodology to use in archaeological research. The majority of respondents said it was often acceptable, reflecting similar results as seen in Table 8. Results can be found in Table 10.

Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?		
Answer Options	Response Per cent	Response Count
No	1.5%	1
Occasionally	25.0%	17
Often	61.8%	42
Always	11.8%	8

Table 10: Online questionnaire: response to whether experimental archaeology is an acceptable methodology

Respondents were also asked to categorise different activities. However, several respondents expressed confusion with this question, and the results from it are not used in this study. Finally, respondents were asked whether they had anything to add about experimental archaeology in an opened ended response question. Some of the results concerned the questionnaire itself (such as issues with Question 11), while others expounded further on the issues surrounding experimental

archaeology. The answers are available in Appendix 1 and are discussed in more depth in Part III.

The sources discussed in this chapter are primarily qualitative in nature and reflect personally held beliefs regarding experimental archaeology that are often not presented in more public discussions, such as in publications or at conferences. The open nature of the interviews and the open and anonymous nature of the questionnaire was developed to encourage participants and respondents to feel comfortable in expressing their thoughts and opinions. The information gathered from the interviews and the questionnaire is employed used in Part III in conjunction with the literature based evidence discussed in Chapter 6 to analyse these perceptions that people have concerning experimental archaeology and its role in academic, archaeological research.

Chapter Six: Results of Participant Observations and Literature Surveys

While the previous chapter dealt with the data collected on individual experiences with experimental archaeology, this chapter looks at the data gathered on how it is presented and discussed publicly. Three methods were employed: participant observation, qualitative literature survey, and quantitative literature survey.

Participant Observation: Conferences

As part of the research, several conferences and sessions on experimental archaeology were observed. In contrast to the role as observer in the previous section, here the role of participant-observer was adopted. This meant that, while not necessarily 'undercover', I participated in the conferences as a PhD student in archaeology normally would. The only difference was that the notes taken were geared more towards addressing research questions than to taking notes on people's papers.

There are many archaeology conferences, and among them a number that either contain sessions about, or focus entirely on experimental archaeology. From 2008 to 2010, eight conferences were attended or observed in the UK, the US, and Europe. These conferences are discussed below. Several different types of conferences were observed: small one or two day conferences focusing on experimental archaeology and a medium sized conference and two large international conferences with sessions on experimental archaeology. The aim was to observe how experimental archaeology was being presented publicly, what issues arose during discussion of the methodology, and how well integrated the method was into archaeological research.

The material gathered from conferences differs from interviews and observations of experiments, as do the methods. An audio recorder was not used at conferences, but written notes were taken, and where appropriate, photos of items such as posters. The normal range of abstract CDs and books, as well as schedules and flyers was gathered. Some of this material is included in this chapter.

Experimental Archaeology Conferences, UK

The first set of conferences discussed here are the Experimental Archaeology Conferences (EAC), which have been held, for the most part annually, since 2006. The initial conference was held at the University College London, and the second at the University of Exeter. These smaller conferences consisted of those specifically interested in experimental archaeology, and acted as a venue for participants to discuss the role of the method in research.

Edinburgh, Scotland, UK 15-16 November 2008

The third EAC took place at the University of Edinburgh, where papers were presented on a variety of topics the first day (see Table 11), and at the Scottish Crannog Centre where, on the second day, conference attendees had a tour. While primarily a museum, the centre does have an 'experimental' crannog on site. This conference is briefly discussed in the personal narrative in Chapter 1. It was the discussions that took place at this conference that began to develop my interest in how experimental archaeology was perceived within the wider discipline of archaeology.

The key themes of the conference were (Experimentalarchaeology.org.uk n.d., 3rd Conference):

- 'The role of experiment in archaeological interpretation and research';
- 'understanding technology in ancient society';
- 'the role of experiment in public archaeology and living archaeology centres: the case for greater academic involvement';
- 'case studies of current projects'.

Authors	Paper Title
Dineley, Merryn	More than the daily grind: experiments in grain processing techniques
Elliott, Ben	Barbed point manufacture at Star Carr
Hopkins, Heather	Experiences versus experiment: differing disciplines' definitions leading to the answering of 'unanswerable' questions, a case study using Roman dyeing
Choyke, Alice Daniels, Zsuzsa	Modelling textile production in the past: family hemp textile production in a Transylvanian village
Kirk, Susana	The colours of Minoan faience: replicating an ancient technology
Sternke, Farina	Apprenticeship in Palaeolithic societies—preliminary results of recent experimental flintknapping and its implications for archaeological interpretation
Heeb, Julia	Changing material identities—an experimental approach to the copper axes of South-Eastern Europe
Eigeland, Lotte	Flint use in flint scarce regions—experiments with low quality flint
Lerner, Harry	Experimental testing of methodologies in use-wear analysis
Massaud, Manal	Study of the harmonization, convenience and suitability of house designs in Ancient Egypt: experimental reconstructions of some houses
Esquerra, Clara Masriera De Llorens, Jordi Morer Santacana, J. Mestre	Reinterpreting roofs in the Iberian Citadel of Calafell
Paardekooper, Roeland	Desk work, field work, then what?
Schenck, Tine	The positivist-postmodern tension in experimental archaeology of today

Table 11: List of authors and papers from Experimental Archaeology Conference 2008 (Experimentalarchaeology.org.uk n.d., Formal Papers)

The conference organisers also included a list of attendees that included their name, country, email address and institution. The countries and institutions represented at the conference are shown in Table 12 and Table 13, respectively. Not all attendees listed an institution. While the majority of attendees were from the UK, both tables show that the conference was attended by a geographically diverse group of participants. Additionally, Table 13 shows that participants came from academic institutions as well as museums, experimental archaeology centres, and other types of institutions.

Several topics were presented at the conference, including experimental archaeology case studies, methodological and theoretical issues, and discussions on the role of experimental archaeology. Of the papers presented, Kirk's work on replicated Minoan faience was eventually published in the *Journal of Archaeological Science* (Tite et al. 2009). Roeland Paardekooper (2009, p.61), reviewing the conference for EXARC, notes that during part of the discussion at the conference, Bruce Bradley (see Chapter 5) expressed the idea that researchers shouldn't worry about semantics, and instead should be self-critical of their research. Other participants raised the issue of experimental archaeology not being recognised in archaeological research, although he also notes that participants were divided on this issue (Paardekooper 2009a, p.61)

Countries Represented at the Experimental Archaeology Conference 2008
UK
UAE
Hungary
Italy
Norway
Spain
Germany
Nigeria
Canada
Egypt
USA

Table 12: Participants' countries of residence, Experimental Archaeology Conference 2008

Institutions Represented at the Experimental Archaeology Conference 2008
Archaeology Scotland
American University of Sharjah
The Scottish Crannog Centre
University of Exeter
City College Plymouth
University of Edinburgh
West Stow Anglo-saxon Village
Museum of Cultural History (Norway)
University of Aberdeen
University of Bradford
Natural History Museum, Obafemi Awolowo University
Cranfield University
University of Sterling
C/O Archaeology
National Museums Cardiff
National Museums Scotland
University of Glasgow
University of Central Lancashire

Table 13: Participants' associated institutions, Experimental Archaeology Conference 2008

Experimental Archaeology Conference, 14th -15th of November 2009

Aberdeen, Scotland, UK

The 4th Experimental Archaeology Conference in the UK took place at the University of Aberdeen, Scotland. As indicated in Figure 13, the focus of the conference was intended to be on craft, skill and performance in archaeological experiments and the integration of craft practitioners. The 'About the Conference' also reflects the similar ideas discussed in Chapter 5, Figure 11, in which experimental archaeology is viewed as a way of testing hypotheses, but also learning about craft skills.

This image has been removed by the author of this thesis for copyright reasons.

Figure 13: 'About the Conference' from conference website, (University of Aberdeen 2009).

There were a wide variety of papers presented (Table 14), including several case studies of recent experiments, papers on the nature of experiment, and a paper on methods for making archaeological experiments available to a wider audience. The morning discussion focused on the relationship between academic archaeologists and skilled practitioners. Several possible ways of improving relations were discussed. This included changing the relationship dynamic by developing relationships over time, with communication about expectations from each side being kept clear. Archaeologists can also enter such relationships with skilled practitioners based on mutual learning or apprenticeship, as exemplified by Liardet (2009a). The afternoon discussion also focused on the technical aspects of each experiment as well as what such practices can tell us about social and cultural issues (Reeves Flores 2010b).

Author	Title
Ingold, Tim	Welcome
Doonan, Roger	Does familiarity breed contempt?
Liardet, Frances	'I'm still learning'*: apprenticeship, archaeology, and the making of glass bottles
Marshall, Claire	Breaking the sense barrier—new directions for complexity, transformation and reconstructive practice in Experimental Neolithic Archaeoacoustics
Millson, Dana	Challenging pots: experiments considering the taphonomy of British Neolithic ceramics and the application of residue analysis
Staubermann, Klaus	Case studies in reconstructing 19 th century science and technology
Koerner, Stephanie	Experimental archaeology after simplicity – implications for reflexivity of insights that a 'common world' is not 'given'
Sternke, Farina	The online database (DExAR) – www.arts.gla.ac.uk/dexar/
Barber, John Cavers, Graeme	The construction, stability and destruction of dry stone build structures
Strachan, David	The Loch Tay Logboat Project

Table 14: Papers given at the Experimental Archaeology Conference 2009, Aberdeen (experimentalarchaeology.co.uk n.d.)

For this conference there was another list of attendees provided by the conference organisers. The original list included their title, names, and organisation. Table 15 lists the organisations represented at EAC 2009. While more institutions were represented, there was less geographical diversity. Additionally, the participants list for EAC 2008 lists 68 participants, while the one for 2009 lists 38. However, attendance may have been affected by a variety of factors.

Declared Institutions	
AOC Archaeology Group	University of York
Amgueddfa Cymru–National Museum	Cardiff University
University of Sheffield	University of Manchester
University of Aberdeen	Caithness Archaeological Trust
University of Sheffield	Castletown Heritage Society
University of Exeter	National Museums Scotland
University of Edinburgh	University of Glasgow
Wesses2000bc	Perth and Kinross Heritage Trust
Archaeolink	English Heritage
Durham University	Mesolithic Resource Group

Table 15: Participants' associated institutions, Experimental Archaeology Conference 2009

EXARC General Meeting 2010 (Reeves Flores 2012a)⁵

EXARC, the ICOM (International Council of Museums) Affiliated Organisation representing archaeological open-air museums and experimental archaeology, has a general meeting each year. While the primary focus of EXARC can be seen as being geared more towards education and public presentation, the General Meeting in 2010 also dealt with academic institutions. The EXARC General Meeting was held in Cardiff, Wales, UK from 5-7 March 2010. On the first day, the participants visited St. Fagans, an open-air museum. A meeting was held on the second day, entitled 'Open Air and Experimental Archaeology in the UK: recent work and on-going projects'. This second day was designated as a time for participants to present their current work going on in open-air museums and related institutions. It was also meant as a time to discuss the relationship between open-air museums and experimental archaeology centres and universities (Reeves Flores 2012a). The list of papers presented are listed in Table 16.

⁵ Portions of this review have been published in the *EXARC Journal*

Author	Title
Bell, Martin	The embedded value of old experiments: roundhouse and experimental earthwork excavations
Coles, Nick Stewart, Jane	Cosmeston Medieval Village—Heritage by accident!
Siddorn, Kim	Wychurst: building the past into the future
Freeman, David	<i>Unavailable</i>
Bennett, Phil	<i>Unavailable</i>
Bradley, Bruce	Universities and Open Air Museums: of mutual benefit?

Table 16: Authors and titles of papers given at EXARC General Meeting 2010

The last portion of the afternoon was spent discussing the relationship between universities and open-air museums. A wish for people to move away from the semantics regarding the definition of experimental archaeology (as discussed in Chapter 1). Instead, the focus should be strengthening relationships between academics and open-air centres was expressed. The discussion included issues regarding funding and increasing the impact of experiments and concluded with the statement that the goal has to be to develop experiments that are beneficial for centres, academics and the public. The work done at Lejre was mentioned as an example of good practice (Reeves Flores 2012a).

Experiment and Experience: Ancient Egypt in the Present

A conference entitled *Experiment and Experience: Ancient Egypt in the present* was held at the University of Wales, Swansea, by the Egypt Centre and the Department of History from 10-12 May 2010. The conference was also made available to an online audience by streaming it online. For this research the conference was viewed online. One of the expressed aims of the conference was to highlight experimental research and also the value of experience gained through working with ancient materials and techniques. In addition to giving more conventional papers, those presenting were encouraged to include physical demonstrations. Many of the papers focused on a diverse array of materials and processes. These included process such as shipbuilding and navigation, use and

production of lithics and stone tools, woodworking, designing textiles, and producing glass, metal, and ceramics. Several presenters also included demonstrations of the skills or materials associated with their topic (Reeves Flores 2012b). This conference was unique for two reasons: it actively promoted the incorporations of demonstrations of experiment or craft skills into presentations and the focus was on experimental and experimental archaeology within Egyptology. Egyptology is also a well-established archaeological and historical discipline that is not as often associated with experimental methodology as prehistoric studies are. There is also more of a focus on organic material artefacts, perhaps because of the preservation and visual representation of life that is available in Egyptology.

Author	Title
Ikram, Salima	From the meadow to the em-baa-ming table
Killen, Geoffrey	Woodworking
Creasman, Pearce Paul	Exposing ancient ship builders
Ryan, Donald	Reed boat building: early experiments
Cooke, Ashley	The experimental work of FCJ Spurrell: faience, glass and beads
Graves-Brown, Carolyn	History of experimental lithics: from Spurrell to Lund
Lund, Marquardt	Flintknapping scenes from Beni Hassan tombs
Focke, Sonia	The horn bow: Egyptology's problem child
Janssen, Rosalind	Textile demonstration
Richards, Ann	Could ancient Egyptian textiles have pleated themselves?
Johnstone, Janet	Practical dressmaking for ancient Egyptians
McAleely, Sally	Experimental recreation of a funerary garland
Nicholson, Paul	Could the Egyptians make glass?
Ćwiek, Andrzej	Limestone speaking: experience and experiments in the field
Stocks, Denys	Stone working
Norris, Pauline	Keeping the horse in the front of the chariot
Parkinson, Richard Ewing, Barbara	Experimental philology: performing ancient Egyptian poetry
Wendrich, Willeke	Apprenticeship as a research method
Merkel, John	New kingdom copper smelting, refining and casting experiments
Szpakowska, Kasia	Making and breaking ritual figurines

Table 17: Authors and titles of papers given at Experiment and Experience 2010

European Association of Archaeologists

Thus far, the conferences discussed focus on experimental archaeology, mostly as academic methods, but also as tools for education and presentation. However, experimental archaeology is

presented at other, more general conferences. One example is the annual meeting of the European Association of Archaeologists (EAA).

The EAA held in 2009 was chosen as a case study because there were several sessions that incorporated experimental archaeology, and it provided a comparison to what was being presented in the US and in the UK. The meeting was held from 15-29 September 2009, in Riva del Garda, Trento, Italy. The conference hosted a wide range of sessions, and while there were none that focused exclusively on experimental archaeology, the method was present in a variety of different sessions. In addition, there was a session specifically dedicated to the current and future situation of open-air museums. This had not originally been the case; a session originally dedicated to looking introspectively at experiment in archaeology was withdrawn (Reeves Flores 2010a).

However, several other sessions hosted papers that involved experimental archaeology (EAA 2009):

- *New Approaches on Studying Weaponry of the European Bronze Age* organized by Marion Uckelman (Germany)
- *Rural Land Use and the Management of the Archaeological Historical Landscape: A European Perspective* organized by Stephen Trow (UK)
- *Social Aspects of the Prehistoric Past: Archaeological Models and Interpretations* which was organised by Anna Maria Sestieri (Italy)
- *Archaeologies and Soundscapes: From the Prehistoric Sonorous Experiences to the Music of the Ancient World*, organized by Giorgio Dimitiadis (Italy)
- *The Chaîné Opératoire Approach to Ceramics Studies* organised by Simona Scarcella (France).

Due to time constraints, only two sessions that incorporated experimental archaeology were observed: *Archaeologies and Soundscapes* and *The Chaîné Opératoire Approach to Ceramics Studies*. *Building the Past for the Future: Open air museums: What chance in the 21st century?* which, while focusing on open-air museums, did deal with issues related to experimental archaeology and was also observed.

Author	Title
Clodoré-Tissot, Tinaig Mainson, René	Baby bottles or water whistles? Rethinking the use of enigmatic ceramic artefacts dated to the Bronze Age, found in Switzerland, on lake-dwelling settlements
Garcia, Benito Carlos Lopez, Sebastian Maria	Methodological analysis and sound models throughout the study of sound relation between rock sites in Aragon-Spain
Karampatzakis, Panagiotis Zafranias, Vasilios	Did Hades accept visitors?

Table 18: Papers with elements of experimental archaeology from session: Archaeologies and soundscapes 2010

The goal of *Archaeologies and Soundscapes* (EAA 2009, p.15) was to promote discussion of current research into archaeological soundscapes, and evaluate how ethnography and experiment aid the interpretation of possible musical artefacts. The papers listed in Table 18.

Author	Title
Martineau, Remi	Archaeological and experimental recognition of forming techniques: methodological aspects and embedded approach from Neolithic context
Thér, Richard	Determination of firing strategy by experiment: LBA pottery from NE Bohemia
Bazzanella, Marta Mayr, Anna	Ceramic spindle whorls and loom weights from the Bronze Age pile dwelling of Molina Di Ledro
Laneri, Nicola	The life-history of the potter's wheel in the ancient Near East
Berg, Ina	Exploring the Chaîné Opératoire of ceramics through x-radiography

Table 19: Papers given in the session The Chaîné Opératoire Approach to Ceramics Studies 2010

The session *The Chaîné Opératoire Approach to Ceramics Studies* also incorporated a wide range of methodologies used in studying the production processes of ceramics (EAA 2009, p.168). Several of the nine papers presented used replicative experimental methods in studying the technologies in question; these are listed in Table 19. In these two sessions, Berg was the only person from the UK that gave a paper.

Author	Title
Paardekooper, Roeland	Introduction: the future of archaeological open air museums
Wood, Jacqui	The rise and decline in popularity of archaeological parks throughout Europe
Baranowski, Tadeusz Zukowski, Robert Ziabka, Leszek	The Archaeopark of Kalisz-Zawodzie as an example of the reconstruction of the cultural environment of a local authority centre in Early Medieval Poland
Vannini, M. Cristina Scandolari, Romana	The Museum of Ledro: an incubator from cultural, economical and ecological development
Gradoli, Maria Giuseppina	The social implication of local communities in experimenting the past. A case study from Sardinia
Paardekooper, Roeland	LiveARCH presentation

Table 20: Authors and titles of papers given in the session Building the Past for the Future 2010

Building the Past looked at strategies and aims of open-air archaeological museums, including the incorporation of experimental archaeology. Those papers that discussed experimental archaeology during the session are listed in Table 20. The papers were followed by a short discussion that focused on the definition of open-air museums compared with archaeoparks (and other incarnations) and on the role open-air museums and archaeoparks play in creating cultural and group identities.

While there were no sessions dedicated to experimental archaeology that went ahead, the method was integrated into the different areas of research presented at the conference. This inclusion of experimental archaeology may indicate that many archaeologists are actively incorporating replicative experiments and reconstructions into research (Reeves Flores 2010a).

Theoretical Archaeology Conference, UK (TAG)

Targeted towards students and young researchers, TAG's aim is to present new and unconventional ideas, theories, and methods in archaeology. Two TAG conferences were observed one in 2008, and the other in 2009, and both conferences had organised sessions that focused on experimental archaeology. TAG was chosen for observation because it is often populated by researchers who are in the early stages of their careers, including new PhDs, PhD candidates, MA students, and even undergraduates. This conference is one place where marginal theories or methods are expected to be present.

TAG 30

The 30th Theoretical Archaeology Group Conference (TAG 30) took place at the University of Southampton, UK from the 15-17 December 2008. *Replication and interpretation: the use of experimental archaeology in the study of the past* dealt with the current state of experimental archaeology. The session sought to examine the use of experimental archaeology as a method for understanding the past, addressing the 'why' questions often posed by archaeologists, and testing current theories and concepts (Reeves Flores 2009, p.62). A list of the papers given during this session can be found in Table 21.

Author	Title
Koerner, Stephanie	<i>Experimentality and plurality of human life forms</i>
Reeves Flores, Jodi	<i>Experimental archaeology: a history</i>
Hammersmith, Harriet	<i>Experimental research into British beaker construction technologies</i>
Millson, Dana	<i>Experimenting with Neolithic pot: Why did prehistoric people make ceramics?</i>
Marshall, Claire	<i>Becoming bovine: A reconstructive study of transformation through sound in the Neolithic of Britain</i>
Gurling, Thomas	<i>Re-evaluating Medieval brick by means of luminescence</i>

Table 21: Authors and titles of papers presented at the session *Replication and Interpretation 2010*

TAG 31

The 31st TAG was held at Durham University from 17-19 December, 2009. Building on the session the year before, Frank Foulds and Dana Millson coordinated the session *Experimentation in archaeology: combining practical and philosophical methods in the pursuit of past culture* (TAG 2009). The aim was to look at the application of experiment in archaeological research. The session took place as a two part session, with nine papers being presented on a variety of topics in the morning. The presentation portions of the session were complemented by experimental demonstrations by some of the presenters in the university's botanical gardens in the afternoon (Reeves Flores 2010c). The authors and titles of the papers given during the session can be found in Table 22.

Author	Title
Foulds, Frederick	<i>Unchaining the individual: attribution experiments on Palaeolithic hand axes</i>
Alcantarilla, Tania-Morgan Hoyle, Richard Uomini, Natalie	<i>Experimental tests of cave painting techniques</i>
Millson, Dana	<i>Experimentation with Neolithic pot, Part 2: Why did prehistoric people make ceramics?</i>
Liardet, Frances	<i>Treat all metal as hot: what I discovered about experimental archaeology while learning to make core-formed glass vessels</i>
Oliveras, Antoni Martín i	<i>Cella Vinaria archaeological park (teià-maresme- Barcelona). A great experimental archaeology laboratory.</i>
Dineley, Merryn	<i>Bread, beer or something else? A science based perspective on the Neolithic and the Origin of Grain Agriculture debate</i>
Clarke, Simon Renwick, Esther	<i>The processional, but not processual, approach to the Neolithic 'temple' at Stanydale, Shetland</i>
Herriett, Sally	<i>Two methods of rawhide production and its ability to perform a variety of tasks</i>
Koerner, Stephanie	<i>Experimental archaeologies after vexed objectivist and relativist options' shared presuppositions</i>

Table 22: Authors and titles of papers presented at the session *Experimentation in Archaeology 2010*

Many of the papers used experimental archaeology in addressing questions or perceptions about specific types of materials and technologies. There were several more people presenting in the session this second year, although Millson and Koerner presented in the session both years. The session also incorporated the process of more physical presentations, however unlike *Experiment and Experience* these presentations were done separately.

Society for American Archaeology, General Meetings (SAA)

The SAA is one of the largest conferences in North America, drawing a large, international group of participants and hundreds of presenters. The 2010 Meeting at St. Louis, Missouri served as a case

study for how experimental archaeology is integrated into academic research in the US.

Due to the sheer breadth and number of parallel sessions of the conference, it was not possible to see each and every paper on experimental archaeology. To get a general idea of how many there were on experiment, however, a digital search of the meeting's abstract book was conducted (Society for American Archaeology n.d.). Two of the sessions were observed: the general session *Artefact studies: modelling and experimentation* and the symposium on *Recognizing skill-level archaeologically and what it reveals culturally*. Table 23 is a list of the sessions and symposia that specifically mentioned experimental archaeology in their abstract. It also lists a symposium which focused on craft skill and included several papers with experimental archaeology methods. Outside of these symposia and general sessions targeting experimental archaeology, papers which appeared to have used experimental methods were presented in other sessions in the conference as well. Table 24 is the same in regard to individual papers. The session numbers have been retained so that it is easier to identify which papers were in what sessions (Society for American Archaeology n.d.).

[Session number in Abstract book] Title (page number)
[4] Residue Analysis 1: The Taphonomy Of Archaeological Residues (<i>SPONSORED By Society For Archaeological Sciences</i>) (SAA Abstract 2010, Pp.1)
[190] Artifact Studies: Modelling And Experimentation (pp.15)
[216] Understanding The Uses Of Ground Stone Tools: New Directions And Developments (pp.17)
[256] Recognizing Skill-Level Archaeologically And What It Reveals Culturally (p.20)

Table 23: Sessions and symposia that mentioned experimental archaeology 2010 (Society for American Archaeology n.d.)

Author (University), [session number] Title (page in Abstract Book)
Andrew Barker, Barney Venables and Steve Wolverton (University of North Texas) and Stanley Stevens (University of South Florida) [4] <i>Exploring Protein-Ceramic Interactions Using TOC Analysis, Protein Assays and LC-MS</i> (34)
Jenna Battillo (Washington State University) [74] <i>An Investigation into the Preservation of Saw Marks and Cut Marks on Burnt Bone</i> (37)
Andrew Boehm (Southern Methodist University) and Conor Hall and Erik Otarola-Castillo (Iowa State University) [123] <i>Experimental Bison Butchery: Is Marrow Extraction Worth It?</i> (44-45)
Margie Burton (San Diego Archaeological Center) [216] <i>Understanding Hunter-Gatherer Grinding Technology through Experimentation</i> (52)
Byerly, Ryan (Colorado Archaeological Society), Charles Egeland (University of North Carolina at Greensboro) and Jason LaBelle (Colorado State University) [256] <i>Anatomical Learning among Novice Butchers: Implications for Modelling Early Hominin Carcass Processing Behavior</i> (53)
Matthew Chastain, Alix Deymier, David Dunand and James Brown (Northwestern University) [140] <i>Materials Science Analysis of Copper Artifacts from Cahokia's Mound 34</i> (60)
Zuzana Chovanec (University At Albany) [4] <i>An Experimental Approach to the Analysis of Opium Residues</i> (61)
Cara Connolly (University of Nevada, Las Vegas) and Nathan Martinez [190] <i>Fertility Groove Marks and Cupules in the American Southwest and Northern Chihuahua Desert</i> (65)
Roger Dorr (National Park Service) [190] <i>Where is the kiln? Investigating Northern Sinagua Pottery Production through Experimental Replication.</i> (79)
Laure Dubreuil (Trent University) and Hughes Plisson (CNRS, Aix-en-Provence) [216] <i>Use-wear Approaches to Ground Stone Tools: Developing the High Magnification Analysis of Objects with a Metallographic Microscope</i> (80-1).
Metin Eren (Southern Methodist University), Adam Durant (Cambridge University) and Christina Neudorf (University of Wollongong) [183] <i>An Experimental Examination of Animal Trampling in Dry and Saturated Substrates in Kurnool District, Andhra Pradesh, South India</i> (86-7).
Suzanne Eskenazi and Heidi Roberts (HRA, Inc. Conservation Archaeology) [144] <i>Cactus Processing in the St. George Basin, Washington County, Utah</i> (88).
Jacob Fisher (University of Washington) [213] <i>Processing and Consumption of Rabbits at Antelope Cave, Arizona Antelope Cave</i> (92).
Jodi Flores (University of Exeter) and Metin Eren (Southern Methodist University) [256] <i>Reporting Skill-level In Experimental Archaeology: How Often It Is Done And Why It Is Important</i> (93)
Tracy Formica (URS Corporation) [179] <i>Lithics Really Do Talk Back: A Comparison of Sites 33PE838 and 33PE839</i> (94)
Kathleen Holen and Steven Holen (Denver Museum of Nature & Science) [190] <i>Experimental Elephant Limb Bone Breakage as an Analogy for Mammoth Bone Breakage Patterns: Implications for the Early Peopling of North America</i> (121).
Emily Holstad and John Jones (Washington State University) [84] <i>Cooking With Limestone: Does it Enhance Maize Nutrition?</i> (122)

<p>Leo Hosoya (Research Institute for Humanity and Nature) [151] <i>Processed Food in Neolithic: Experiments and Ethnography on Wild Food Plant Processing for Reconstruction of Prehistoric Subsistence Strategies in East Asia</i> (123)</p>
<p>Amy Humphries [190] <i>When a Rock Pile Ceases to be a Rock Pile: A Test of the 1985 Sullivan and Rozen Study Utilizing Experimentally Created Assemblages</i> (124)</p>
<p>Linda Hurcombe (University of Exeter) [256] <i>Recognising and Valuing Skill in Perishable Material Culture</i> (125)</p>
<p>Caroline Jeffra (University of Exeter) [256] <i>Clumsy, Crude, Well-Made, Fine? Skill and the Learning Process in Light of the Pottery Wheel</i> (129).</p>
<p>Anneke Janzen (UC Santa Cruz) and Naomi Cleghorn (University of Texas at Arlington) [234] <i>Hyena Bone Choice and Destruction of Large Fauna</i> (129)</p>
<p>Scott Johnson and Grant McCall (Tulane University) [190] <i>Fire Hardened Spears: Hardwoods vs. Softwoods, Strength, & Production Studies</i> (132)</p>
<p>Edward Jolie and Phil Geib (University of New Mexico) [118] <i>Small Seeds, Basketry, and the Broad Spectrum Revolution on the Colorado Plateau</i> (132)</p>
<p>Harry Lerner (Université Laval) [200] <i>Raw Material Intra-Type Variability as a Factor in Use-wear Formation: An Example From the Late Archaic of Northwestern New Mexico</i> (149)</p>
<p>Li Liu and Xingcan Chen (Chinese Academy of Archaeology, Institute of Archaeology) [155] <i>From Macro to Micro: the Sino-Australian Yiluo Region Project</i> (152)</p>
<p>William Lovis and Gerald Urquhart (Michigan State University); John Hart and Robert Feranec (New York State Museum) [4] <i>Alkali Processing of Maize and Resultant $\delta^{13}C$ Values on Systematic Experimental Carbonized Residue C3 Food Mixes</i> (155)</p>
<p>Kathryn MacFarland (University of Arizona) [240] <i>Laterality and Directionality in Pottery Painting and Coiling</i> (158)</p>
<p>Andrew Marley (College of Wooster) [30] <i>Evaluating Prehistoric Subsistence Patterns using Microwear Analysis of Flint Tools from Rock Shelters in Central Ohio</i> (162)</p>
<p>Lauren O'Brien (Southern Methodist University), Albert Gonzalez (Southern Methodist University) and Brooke M. Morgan (Southern Methodist University) [200] <i>Make it Hot, Hot, Hot: Experiments in Thermal Efficiency of Micaceous Clay Cookware</i> (186)</p>
<p>Ann Oldroyd (University of Exeter) [256] <i>Learning at the Gault Site, Texas: Studying Skill-Level in a Non- Refitted Bifacial Assemblage</i> (188)</p>
<p>Charlotte Pevny, Daniel Welch, James Wiederhold, and Tim Riley (Texas A&M University) [4] <i>Use-wear and Residue Analyses on Tools from the Lower Pecos Canyonlands: Exploring Tool Function through Experimental Comparison</i> (195)</p>
<p>Erica Prange (College of Wooster) [73] <i>Learners in Clay: Experimental Studies in Eastern Woodland Ceramic Manufacture</i> (199)</p>
<p>Kathryn Puseman, Linda Scott Cummings (PaleoResearch Institute) and Melissa Logan (PaleoResearch Institute) [4] <i>Organic Residues: Prehistoric Signatures and Curation Contamination</i> (201).</p>

<p>Maria Raviele (Michigan State University) [4] <i>The Implications for Maize Microbotanical Taphonomy via Experimental and Archaeological Residues</i> (204)</p>
<p>John Riggs (Natural Resources Conservation Service, Arkansas) [249] <i>Tracking Pennies: Experimental Archeology on the Movement of Artifacts by Cultivation</i> (208)</p>
<p>Bill Schindler and Aaron Krochmal (Washington College) [88] <i>Finish Your Plate! Rethinking Relative Utility Factors to Better Model Resource Potential in Prehistoric Diets</i> (219)</p>
<p>Joan Schneider (California State Parks, Colorado Desert District) [216] <i>Testing the Assumptions about Bedrock Processing Features: What Have we Learned from Residue Analyses?</i> (220)</p>
<p>Benjamin Schoville (School of Human Evolution and Social Change (Arizona State University) and Kyle Brown (SACP4/University of Cape Town, South Africa) [129] <i>Frequency and Distribution of Edge Damage on Middle Stone Age Lithic Points, Pinnacle Point 13B, South Africa and from an Experimental Calibrated Crossbow</i> (221)</p>
<p>Ceri Shipton (Monash University) [256] <i>The Evolution of Skill in the Acheulean</i> (227)</p>
<p>Christine Sievers (University of the Witwatersrand) [151] <i>Experiments with Fire and Carbonization of Buried Seeds</i> (228)</p>
<p>Matthew Sisk and John Shea (Stony Brook University) [82] <i>The Use of Cross-Sectional Perimeter in Modelling Stone Projectile Point Use</i> (229)</p>
<p>Charles Speer, (University of Texas at San Antonio) [200] <i>Understanding the Effects of Heat Treatment in Edward's Plateau Chert</i> (233)</p>
<p>Farina Sternke (University of Glasgow) [256] <i>Two Out of Three Ain't Bad! Skill, Apprenticeship and Technological Change in European Palaeolithic Societies</i> (236)</p>
<p>Jonathan Thomas and Ted Marks (University of Iowa), Grant McCall (Tulane University) [35] <i>Stringing Together the Past: Experimental Replication of MSA/LSA Ostrich Eggshell Beads</i> (244).</p>
<p>Jason Thompson (University of Iowa) [85] <i>Ground-Penetrating Radar and Imaging of Complex Subsurface Archaeological Materials</i> (245)</p>
<p>Shannon Tushingam, Diana Nguyen, Jelmer Eerkens, Jimmy Nguyen (University of California, Davis) and Oliver Fiehn (UC Davis Genome Center) [4] <i>Gas Chromatography-Mass Spectrometry Analysis of Alkaloid Residue in Ancient and Experimental Pipes</i> (250)</p>
<p>Laura Villamil (University of Wisconsin—Milwaukee) [225] <i>Lowland Maya Post-Collapse Communities in South-central Quintana Roo, Mexico</i> (254)</p>
<p>Lauren Willis (University of Oregon), Andrew R. Boehm and Metin I. Eren (both Southern Methodist University) [74] <i>Fish Bones, Cut Marks, and Burial: Implications for Taphonomy and Faunal Analysis</i> (264)</p>
<p>Liye Xie (the University of Arizona) [216] <i>The Use-life of Groundstone Axes at Erlitou, an Early Bronze Age Site in Central China</i> (268)</p>

Table 24: Paper abstracts that mentioned experimental archaeology 2010 (Society for American Archaeology n.d.)

The conferences that were observed included small conferences specifically on experimental archaeology, a conference dedicated to a specific sub-disciplines, conferences focused on the

theoretical development of archaeology and large, general conferences. Several important points emerged from observation: researchers who attend conferences that focus primarily on experimental archaeology tend to be more interested or focused on definitions and perceptions of the method. These issues were not as prominently discussed at more general conferences. Several of the conferences drew international participation, indicating that there are links between experimental archaeology being practiced in different geographic locations.

Additionally, academic conferences included work that was both experiential and experimental in nature, often openly embracing experiential aspects of working with craft-skills, as in EAC 2009 and *Experiment and Experience*. Finally, they show that experimental and experiential methods are used by researchers when investigating a variety of topics. This is illustrated in Table 25, which is a compilation of keywords and topics used in the paper titles presented in this chapter.

Grain processing	Projectiles	Dyeing	Textiles	Faience
Minoan	Palaeolithic	Stone tools	Copper	Europe
Use-wear	Egypt	Houses	Citadels	Positivist-postmodern
Apprenticeship	Glass	Archaeoacoustics	Pottery	Neolithic
19 th century	Buildings	Earthworks	Open-air museums	Embalming
Woodworking	Ship/boat building	Bows	Stone working	Poetry
Figurines	Weapons	Land use	Prehistoric	Soundscapes
Chaîné Opérateur	Bronze Age	Modelling	History of experimental archaeology	Taphonomy
Skill-level	Cut marks	Hominin	Residues	Food processing

Table 25: Compilation of topics studied using experimental archaeology based on papers given at observed conferences

Literary Sources

Qualitative Literary methods

Quotations which mention why experimental archaeology may or may not be accepted; or that had a positive or negative view of experimental archaeology were selected from the literature on

experimental archaeology, much of which is discussed in Chapters 1, 2, and 3. This is part of a qualitative look at how experimental archaeology is valued and how its impact on archaeological research is perceived in published works. These are presented in full quotations within the analysis chapter text. The data and evidence from this method are treated as they normally would be when citing published information.

Quantitative Literary Methods

Information that can be gleaned from the publication data of archaeological experiments is important for several reasons. Perhaps the most important reason is the fact that publishing in a well-established archaeological journal is one of the more public and prominent way of indicating that the experiment is considered acceptable by the standards set by the archaeological community.

Survey of Renfrew and Bahn

In addition to the full journal surveys presented below, a small qualitative study that was inspired by the interview with Martin Bell, in which he mentioned how experimental archaeology was presented in major archaeological text books, was conducted. As an example, newest edition of Renfrew and Bahn's *Archaeology: theories, methods and practice* (2008), a staple for UK archaeology students, was surveyed and each mention of experimental archaeology was noted. The methodology is referenced over 50 times in the book, with a short informational section dedicated to experimental archaeology (Renfrew & Bahn 2008, p.55). Additionally archaeologists who are known for employing experimental archaeology as part of research are mentioned in the book in relation to this work. These include George Frison (p. 327), Don Crabtree (p. 327), and John Coles (p. 335-7). The experimental archaeology centre at Butser is also mentioned several times.

Key Words	
Stone artefacts	lamps
Cut marks	beads
taphonomy	cave paintings
agriculture	shells
Architecture and monuments	projectile points
hunting	boats
micro wear	pottery
food	furnaces
diet	metallurgy
methodology	ethnoarchaeology
woodworking	handedness

Table 26: Keywords linked to experimental archaeology in Renfrew and Bahn's Archaeology (2008)

Table 26, which illustrates some of the keywords and topics mentioned in conjunction with experimental archaeology in Renfrew and Bahn, show that there is a diverse number of topics that experimental archaeology is used to address in the literature, something that is also reflected in conferences (Table 25). This is also reflected at the respective conferences cited previously.

Journal Survey

This survey of journal articles was conducted to assess how often experimental archaeology is published in a peer-reviewed, academic journal. The publications for this study were taken from three major, peer-reviewed archaeological journals: *Journal of Archaeological Science*, *Antiquity*, and *American Antiquity*. These three journals were chosen because they are relatively broad in topic and accessible. It is also important that not only are issues of the journals often subscribed to by institutions and individuals, but they are also available online for subscription or accessible through prominent databases, such as *JSTOR*, *ScienceDirect* or the publication's own website, which are available to many academic archaeologists through subscriptions from their institutions. Not only does this issue of accessibility make researching these journals easier, but it means that those interested in experiment, or in research that contains experiments, can quickly find such articles. Therefore, not only are the articles being published, but also they are active parts of the continuation of the methodology.

For the purpose of this portion of the research, data were collected on articles that contained actualistic and replicative experiments that looked at human behaviour and material culture. Only articles and reports on archaeological research were included; thus, book and conference reviews were excluded.

Journal of Archaeological Science

The Journal of Archaeological Science (JAS) is a widely respected and highly used popular archaeological journal that 'is aimed at archaeologists and scientists with particular interests in advancing the development and application of scientific techniques and methodologies to all areas of archaeology.(Elsevier n.d.)

JAS has been published since the 1970s, and is published monthly. In addition to original research papers, the journal includes major review articles which are 'of wide archaeological significance' (Elsevier n.d.). While articles included in the journal cover a wide variety of subjects, the primary theme is that the research has some sort of 'scientific' basis or element. This can include the application of methods, such as analysing isotopes of DNA or testing the practicality of new

technologies in archaeological research, as well as laboratory-based and replicative experiments. A variable that may have affected publishing rates was that in 2007, *JAS* increased its page budget; in turn, this allowed for the acceptance and publication of a larger number of articles (Rehren et al. 2008).

From the description of *JAS*, it is obvious that the aim is to reach a wide academic audience, including both archaeologists and scientists who may be interested in using scientific methods and technologies to address archaeological questions:

The journal provides an international forum for archaeologists and scientists from widely different scientific backgrounds who share a common interest in developing and applying scientific methods to inform major debates through improving the quality and reliability of scientific information derived from archaeological research. (Rehren et al. 2008)

Search methodology

Using the search tool for the online database *ScienceDirect*, articles that used the word 'experiment' in the *Journal of Archaeological Science* were gathered. This included articles from the initiation of the journal in 1974 up until what was available online at the end of 2010. For the years 2010 through to 2004, the search engine supplies a table of contents for each article so that it can be skimmed without any need to look at the entire PDF to see if there is a promise of imitative experiment. However, part way through 2003, the online version stops offering a table of contents for articles, so it was much more effective to look at the article in PDF form and search for 'experiment' within that. Articles that were deemed to use experimental archaeology as a method are listed in Appendix 12.

Results

The full list of articles from *JAS* can be found in Appendix 12. Below is a graph showing the number of articles containing experimental archaeology published each year (Figure 14).

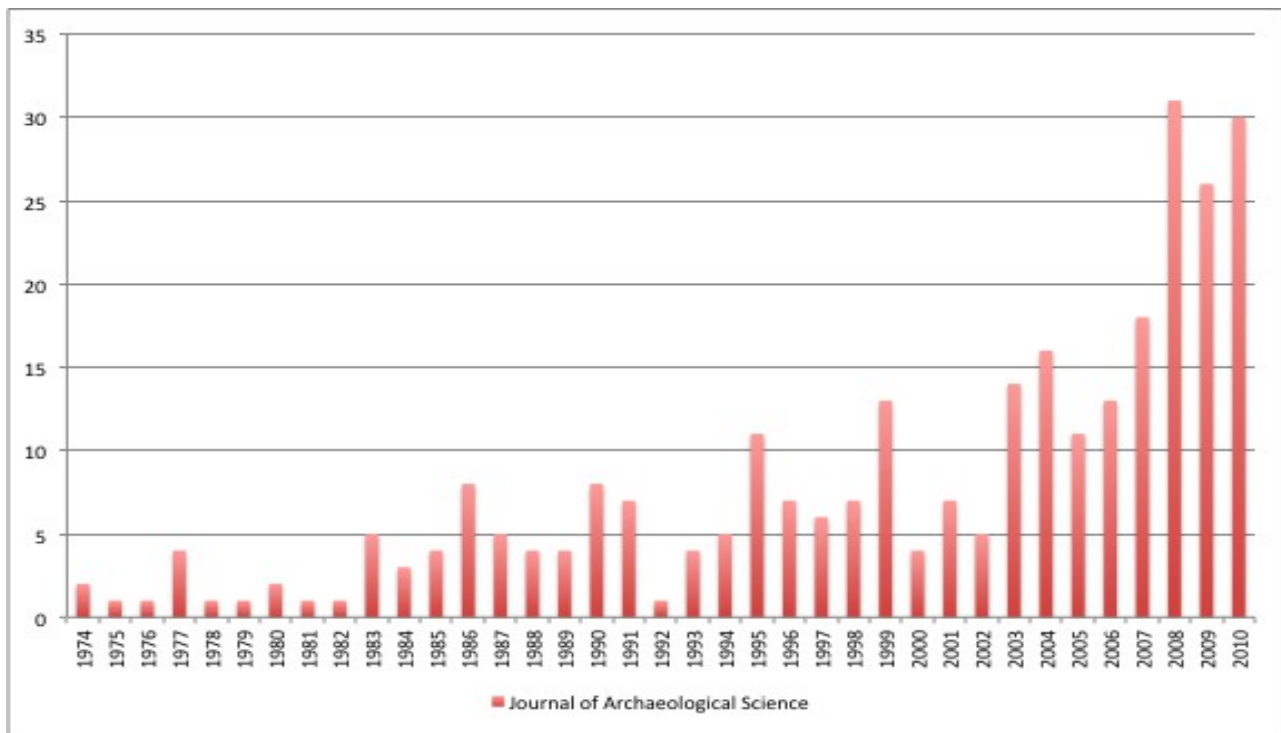


Figure 14: Number of articles per year in JAS that contain actualistic experiments

Antiquity

Antiquity is a quarterly publication and includes articles on a wide range of archaeological topics. *Antiquity* is not associated with a major institution and has been published in the UK for over 75 years. During this time, the journal has actively fostered significant breadth in terms of submission, types of articles and readership (DeMarrais 2002, pp.1089; Kohler 2002, pp.1121).

Before discussing the results, it is prudent to mention certain variables that may have affected the final outcome of results for each journal. Firstly, in the 2002 issue of *Antiquity*, the journal celebrated its 75th anniversary. Due to this, there were more articles than normally expected. The vast majority of the articles included in this issue focused on the history of archaeology in general, and many discussed aspects of the history of *Antiquity*.

Search methodology

The *Antiquity* archive, from 1927 to the current issue, is located on the journal's website (<http://antiquity.ac.uk/archive.html>). As with *JAS*, articles containing the word 'experiment' were collected using the archive's search engine, from the initial volume available up to 2010. The abstracts were then read and the articles reviewed to see if they contained any imitative experimentation. Those that were deemed appropriate are listed in Appendix 13.

Results

The full list of articles from *Antiquity* can be found in Appendix 13. Below is a graph showing the number of articles containing experimental archaeology published each year (Figure 15).

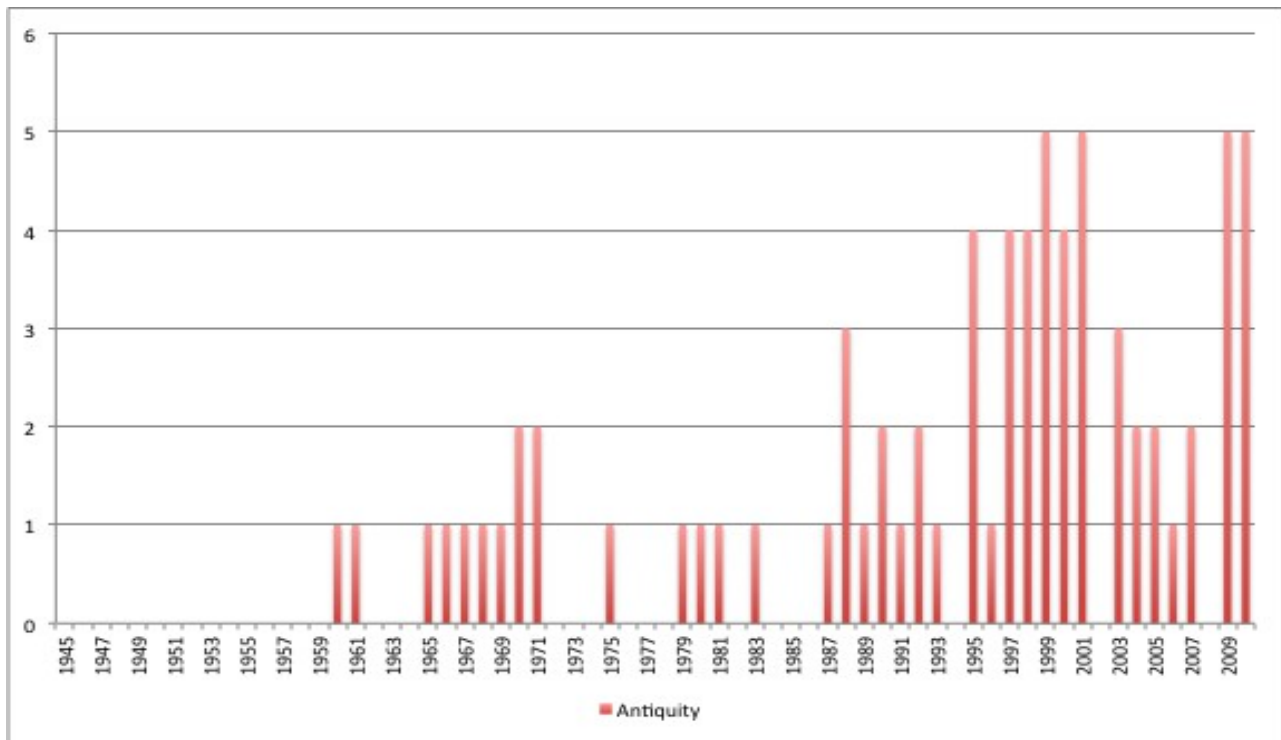


Figure 15: Number of articles per year containing actualistic experiments in *Antiquity*.

American Antiquity

American Antiquity is published quarterly in North America by the Society for American Archaeology (SAA). While the dominant content covers American archaeology, other topics are often included, and the journal has a wide readership base, which includes professional archaeologists and amateurs as well as people simply interested in archaeology (Kohler 2002 pp.1121-1122).

Search methodology

For the years 1935 to 2009, the search for articles containing imitative experiments was done using the digital database, JSTOR. As with *JAS* and *Antiquity*, the key word 'experiment' was searched for; 613 articles were produced from this initial search, and these were then read over to meet the same criteria as the others.

Results

The full list of collected articles from *American Antiquity* can be found in Appendix 14. Below is a graph showing the number of articles containing experimental archaeology published each year (Figure 16).

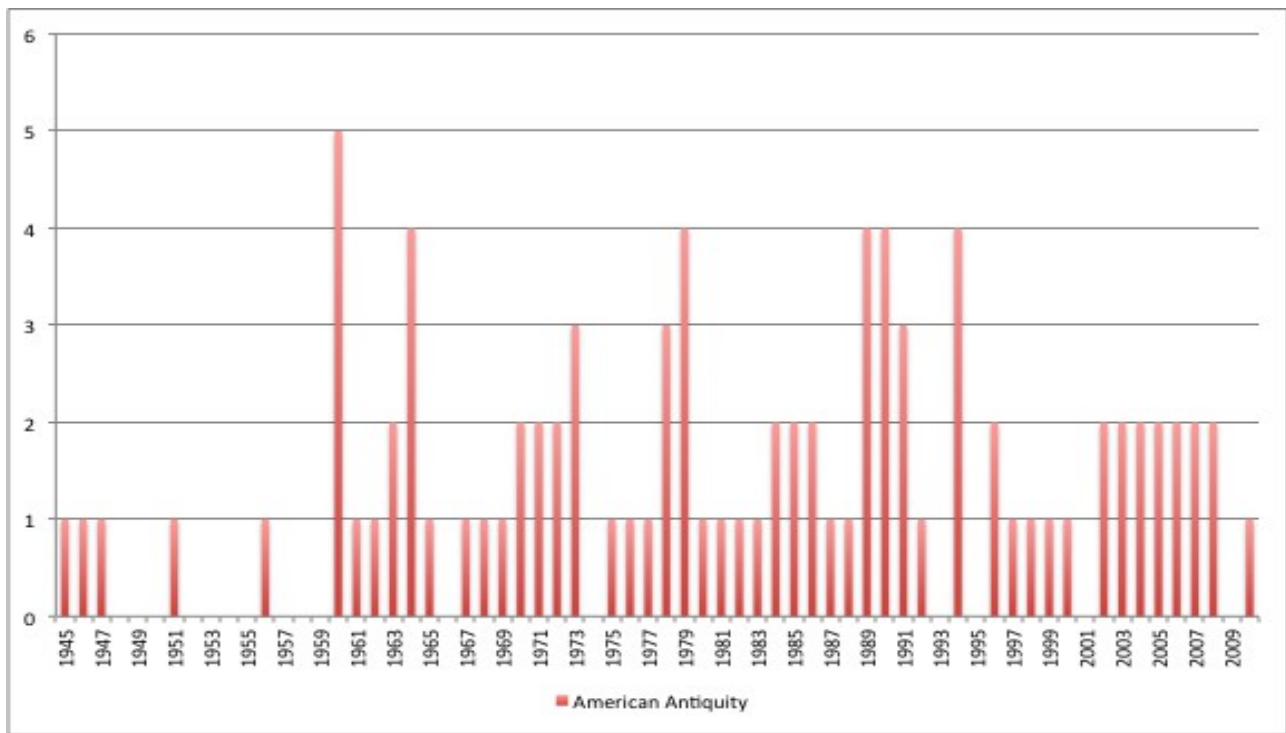


Figure 16: Number of articles per year containing actualistic experiments in *American Antiquity*.

Publication Rates in Terms of Percentage

Figure 3 In Chapter 3 (page 52) illustrates the percentage rate of articles with experimental archaeology in them each year in *Antiquity*, *American Antiquity* and *JAS*. For each year, the number of applicable articles—such as research articles and notes and comments—was counted and the percentage calculated.

Methodological Issues

The process of identifying experiments as replicative and/or actualistic had several intrinsic problems. The primary difficulty was distinguishing between laboratory experiments, ethnoarchaeological observations, and replicative experiments done to test a methodology. For example, does the use of an existing experimental reference collection or the new creation of experimental cut marks on bone in order to test a new method of three-dimensional analysis count as a replicative experiment?

In determining whether something was ethnoarchaeology or experimental archaeology, the decision was ultimately based on whether the researchers participated in the activity either by actively taking part in the processes being studied or by setting up an actual experimental process including the materials being used. Research that was based on pure observation was not included in the data calculations. If laboratory-based experiments contained an identifiable actualistic element, the article was included. For example, if ceramic tiles for strength testing were made out of local

materials or fired using actualistic methods, the article was included. In research where an experimental reference collection was used, where the authors made their own reference collection, or where they relied heavily on an already made reference collection in developing new data, the article was included. In addition, some articles only briefly mentioned experiments done by the authors or explicitly for the research at hand, either in the text or sometimes even just in the footnotes. This is especially true of older articles, and these were included these as well.

PART THREE

Chapter 3 advocates for a reflexive analysis of experimental archaeology influenced by the main concepts of critical realism. This means identifying and acknowledging how people, in this case experimental archaeologists and other archaeologists, view experimental archaeology and its place in archaeological research. Empirical evidence is then used to help explain and evaluate those feelings and views.

The subsequent chapters had three essential aims: to establish people's perceptions of experimental archaeology, to establish its place in academia, and to evaluate experimental archaeology's impact on archaeological research. The ultimate goal is to determine whether people's perceptions of experimental archaeology are congruent with its actual state.

Each of these aims was achieved by addressing certain topics that arose during the research. These topics were developed directly from the literature and data gathered, as discussed in chapters 5 and 6. The data was systematically reviewed and information that addressed these issues was highlighted. During this period of analysis the topics addressed through research were fine-tuned so that they would reflect accurately the issues regarding the role of experimental archaeology in academic research.

The final topics addressed in Part III are:

- the relationships between experimental and experiential archaeology;
- the relationships between academic experimental archaeology and 'non-academics';
- the relationships between experimental archaeology and academic archaeology;
- experimental archaeology's potential impact on and role in academic research.

The concluding chapter goes on to evaluate people's expectations for the future of archaeology and discusses ways in which the methodology can become more integrated and appreciated in archaeological research.

What People Say About Experimental Archaeology

As shown in Chapter 1, and in the data supplied in Chapter 5, there are people involved in

experimental archaeology who are of the opinion that the method is not accepted within academia. There are also people who are critical of it, but in a constructive way—they are usually also involved in using experimental archaeology in their research. Little, however, seems to be said about the method by those academic archaeologists that do not employ it in research in some way. Here the issues regarding experimental archaeology, how it is discussed, viewed, accepted, and used in academic archaeological research are explored through the evidence and sources presented in Chapters Four and Five.

First is the relationship between experimental archaeology and what has come to be referred to as 'experiential' archaeology. Experiential archaeology usually involves imitating or replicating artefacts or past human activities or processes—but not within an experimental framework. This includes many aspects of living archaeology, educational programmes and demonstrations at museums and open-air centres, as well as learning a craft skill or technique.

Not all experiential archaeology is experimental; it often does not have a specific hypothesis or an aim to create a data set, nor is there usually a goal to observe empirically certain phenomena in a controlled setting. However, experimental archaeology is experiential, and both can potentially serve as modern analogues that can aid archaeological research Figure 17.

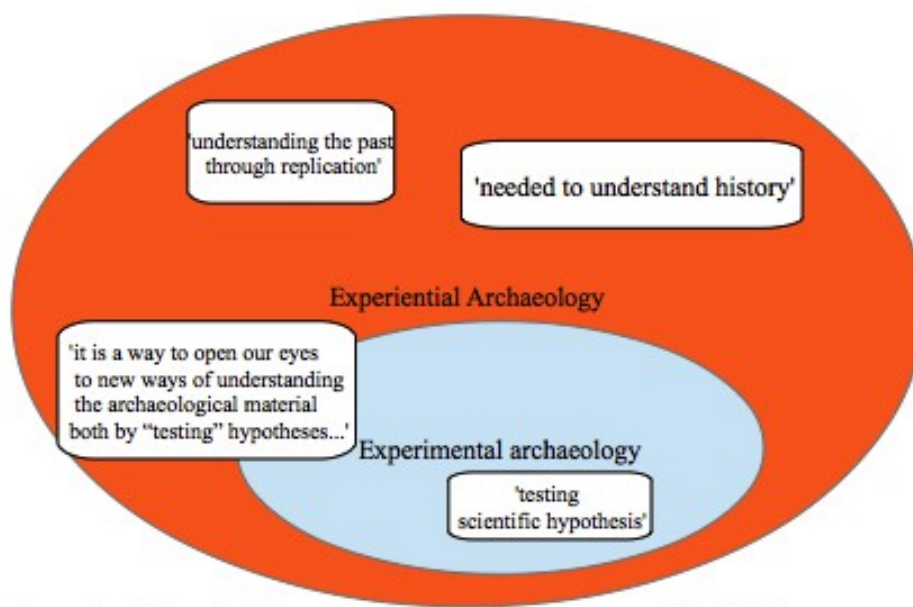


Figure 17: The relationship between experimental and experiential archaeology

The relationship between experimental and experiential archaeology influences the next two topics

that are discussed the following chapters: the relationship between academic experimental archaeologists and non-academic researchers, institutions and craftspeople; and the relationship that academic experimental archaeology has with the wider archaeological community.

Chapter Seven: Experience and Experiment

I use it in two, sometimes quite distinct, ways. I use it as a set of ideas, as well as a scientific research tool. I think there's a place for both, and in particular, I think you need to sometimes design an experiment that really does hold variables constant, that tries to keep a lid on some variables and just [focus] on one thing. I also think the very act of doing some of those things, in a freer way, means that you get an idea of the range of possibilities. You think differently about some of the questions that you're asking. (Hurcombe Interview, Appendix 10, in response to how she uses experimental archaeology in her research)

In archaeology, and in all academic research, experience is the important factor. Most archaeologists know that only through experience in excavating can a person begin to differentiate such things as soil colours and textures or differences between one layer or context and the next. Likewise, many of us know that while there are ways of quantifying such observations, such as through a Munsell chart, the initial discovery and final decision are often subjective, based on the archaeologist's own knowledge and experience. This inability to quantify value easily is one of the primary issues with what has come to be called 'experiential archaeology'.

As the quotation from Hurcombe above illustrates, we know that knowledge gained through such activities is important in developing ideas and questions and can inform what we know about the past. However, it can be difficult to quantify and critically assess the application of such experiences as learning 'primitive' crafts and techniques, constructing a facsimile of an Iron Age house, or living for a week under Iron Age conditions, but it does offer different forms of insight:

Experiential archaeology describes an attempt to access the past human existence via synthesis of their experience by various practical means such as being in the wild, spending days without shelter, feeling the adrenaline of hunting, anticipating a meal while butchering, feeling the warmth by the fire, etc. as opposed to experimental archaeology, which offers insights into material facts in the past via the practical creation of historical artefacts using only historically available technologies. Experiential archaeology brings participants into the experience of living as an ancient inhabitant. The former posits the importance of material facts, while the latter on the human experience of being within the material facts. (Ch'ng 2009, p.458)

Arguably, this is where experimental archaeology comes in; it can act as a sort of Munsell chart. As the quotation above shows, while experiential archaeology is often about trying to access what it might have been like to live in the past, a questionable task, experimental archaeology focuses on

the material 'facts' that we have about the past. The experimental set up, the development of goals or hypotheses, the controlling of variables and recording of procedure allow for better quantification of these experiences. As Respondent 47 (Appendix 1) states in the online questionnaire:

The term E.A. must be strictly limited to real experiments in the classical sense. That means you prove a theory with this experiment. The experiment must be described in all details, the steps and details be documented, the results must be documented and validated. The experiment must be repeatable. The main problem is to find the correct experimental setup. It must be clear that this setup really answers your question(s). The setup must be unbiased. It is not valid to make a setup which exactly leads to the answer you may expect....

The respondent goes on to express that activities such as 'living history' are not experimental archaeology, and that experiments must deal with 'hard facts'. While this may seem straightforward, issues of how experimental archaeology should be conducted and presented have been discussed since the 1960s, and part of this has to do with drawing the line between experimental archaeology and other forms of experiential archaeology (Coles 1979 and Reynolds 1999 are two examples). This discussion continues today, but whether the results and conclusions are being applied to the description of experiential archaeology remains to be seen.

As discussed in Chapter 1, there are several ways of describing and defining experimental archaeology. There are even lines drawn between types of experimentation: Coles stated that simulation—the production of copies—is the lowest level of archaeological experimentation, but also acknowledges its importance in education; while experiments with productions methods, processes, and functions are higher levels (Coles 1979, p.36–39). However, many such simulations could be considered experiential rather than experimental. Indeed, there has been much discussion in the past several years about experiential and experimental archaeology: the relationship between the two, which is which, and the problems in misidentifying the two. It is one thing to define experimental archaeology strictly as Respondent 47 attempts to do, but it is another thing to apply such definitions to a range of activities that effectively fall on a grey scale, as experienced when identifying journal articles that had experimental archaeology as a component in the research. Whittaker also noted that there is a difficulty in labelling activities that fall within the categories of experiential and experimental archaeology:

I wish to argue that the distinction between simulation and replication, between appearance and experiment, between statements made by the artifact and questions it can be used to attack, are not so easily made. The way we replicate an artifact reflects decisions aimed at two different goals, which I think of as "statements" and "questions". A reconstruction presents what we know or believe about a type of artifact to a specific audience, and thus makes statements about it. The goal of "questions" is embodied in the

potential for learning about an artifact by experimental replication and use. (Whittaker 1996, pp.51–52)

Some of the controversy surrounding experiential and experimental archaeology has to do with presentation, that is, whether experiments are conducted and presented in a scientific manner, or whether experiential activities are presented as experimental archaeology. This is an issue that arose both in the online questionnaire and individual interviews conducted, and issues regarding presentation of experimental archaeology will be discussed in the following section. In the interview with Bell, he mentioned research done at Castell Henllys where the focus was participant experience rather than documenting the experiments taking place (Bell Interview, Appendix 4) and Eren also reflected on how experiential and experimental archaeology should be differentiated.

A previously quoted response to Question 5 (Appendix 1, Respondent 47), which asked respondents to describe experimental archaeology, is one of the few to distinguish openly between experiential and experimental archaeology. The respondent described themselves as an amateur archaeologist who conducts 'reconstructive' archaeology rather than experimental. They also reiterated their view of the line between experimental archaeology and other activities in the last questions of the questionnaire, which allowed respondents to add their own reflections, and stated that:

Those who consider their 'Reconstructive Archaeology' as being 'experiments' should learn what the difference is and how to create a real setup. And what both sides should learn is not to quarrel and squabble, but to talk and listen to each other. (Respondent 47, Appendix 1)

While the respondent was not an academic archaeologist, they did share a similar sentiment to some academic archaeologists and others. As mentioned before, both Coles and Reynolds have reflected on the presumed relationship between experiential activities and experimental archaeology. Reynolds has a well-known quotation among British experimental archaeologists in which he refers to reenactment as being 'at the best theatre, at the worst the satisfaction of character deficiencies' (Reynolds 1999, 156; fully quoted in Chapter 1, page 19).

Others, have argued that experimental archaeologists are being bogged down by the constant discussions of trying to define experimental archaeology. Bruce Bradley is one such academic who has made this stance publicly (Paardekooper 2009). He also mentioned this issue during his interview:

There seems to be a lot more rhetoric about what is and what isn't experimental archaeology. I really try to get people beyond that, but it doesn't seem to be making a lot of headway. People want to argue about the semantics of experimental, experiential, and

actualistic, scientific, you know, that seems to just go on and on and on. I don't know [if] there's any result, anything [that] is going to resolve that. No, I don't think I've seen a major shift. And I think it gets back to another question, it gets back to the [idea that] if something's useful to explain or investigate [an] archaeological question or problem, experimentation is applied to it, and it's useful and comes out with positive results, then people accept it, just as any other method. When it's put forward as 'see what I did last summer' and it's called experimental, it doesn't help the situation because it's not. That's where the semantics comes in, in all these arguments about what is and what isn't [experimental archaeology]. So, I don't know, but maybe, maybe there's been some progress on that. (Bradley Interview, Appendix Nine)

Here we will attempt to identify the basic premises of this focus on the rhetoric that surrounds the relationship between experimental and experiential archaeology and how it affects the way experimental archaeology is approached in academic archaeology.

Negative Experiences

Are there negative effects that come from this association? Are Bradley and others, such as Respondent 47, correct in saying that when experiential archaeology is mislabelled as experimental, it can potentially affect how people perceive the method? Does this apply to when people call themselves experimental archaeologists, but primarily engage in reconstructions and/or living history? As the results from the questionnaire, particularly Question 5 indicate, people do refer both to experiential (particularly gaining knowledge) and experimental (hypothesis testing) activities when asked to describe experimental archaeology (see Figure 11, page 109).

There were several respondents to the online questionnaire (Chapter 5) whose view of experimental archaeology appeared to have been affected by their interactions with mislabelled experiential archaeology. Here are several responses to the questions that asked people to define experimental archaeology. Table 27 lists several responses from people who reported that they no experience with experimental archaeology themselves (Question 6), while Table 28 lists responses from people who reported having had some experience with experimental archaeology. Table 30 also includes the description they gave of this experience.

Respondent ID	Which of the following best describes you:	Please describe experimental archaeology to the best of your ability:
30	Archaeology Student	Attempting to discover how people in the past carried out daily tasks by trying to do it yourself with appropriate tools and materials
8	Archaeology Student	Using new and developing techniques during archaeological excavation and interpretation
58	Professional Archaeologist	Having fun at the job... and trying to develop a better theory for the data at hand.
31	Archaeology Student	Making things the way people used to make it in the past.
28	Archaeology Student	Experimental archaeology I always associate with fieldwork, the overall name given to the sub-categories of field walking, aerial photography, excavation, etc.
22	Academic Archaeologist	Emulating and evaluating past technologies, artefacts and practices.
13	Academic Archaeologist	Learning about the past by attempting to reproduce the methods and processes used by past peoples in the present
12	Academic Archaeologist	Reproducing archaeological artefacts and processes as a means of understanding them.
11	Academic Archaeologist	Field of study in which buildings, structures and devices of the past are recreated using known (or estimated) methods in order to gain a better understanding of how long it would take, manpower, resources, etc.

Table 27: Answers to Question 5 by respondents who answered 'no' to Question 6

The examples in Table 27 show respondents from this category that did not reference the idea of theory testing. All of the responses listed above indicate that the respondents' concept of experimental archaeology was of it being more experiential than experimental, as discussed in Chapter 5. Interestingly, none of the people who described themselves as having 'no experimental archaeology experience' described or defined experimental archaeology in a negative light. While the sample is small, 25 of respondents answered 'No' to Question 6 (Figure 18); this would indicate that, on the whole, there is a positive view of experimental archaeology amongst this demographic.

Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

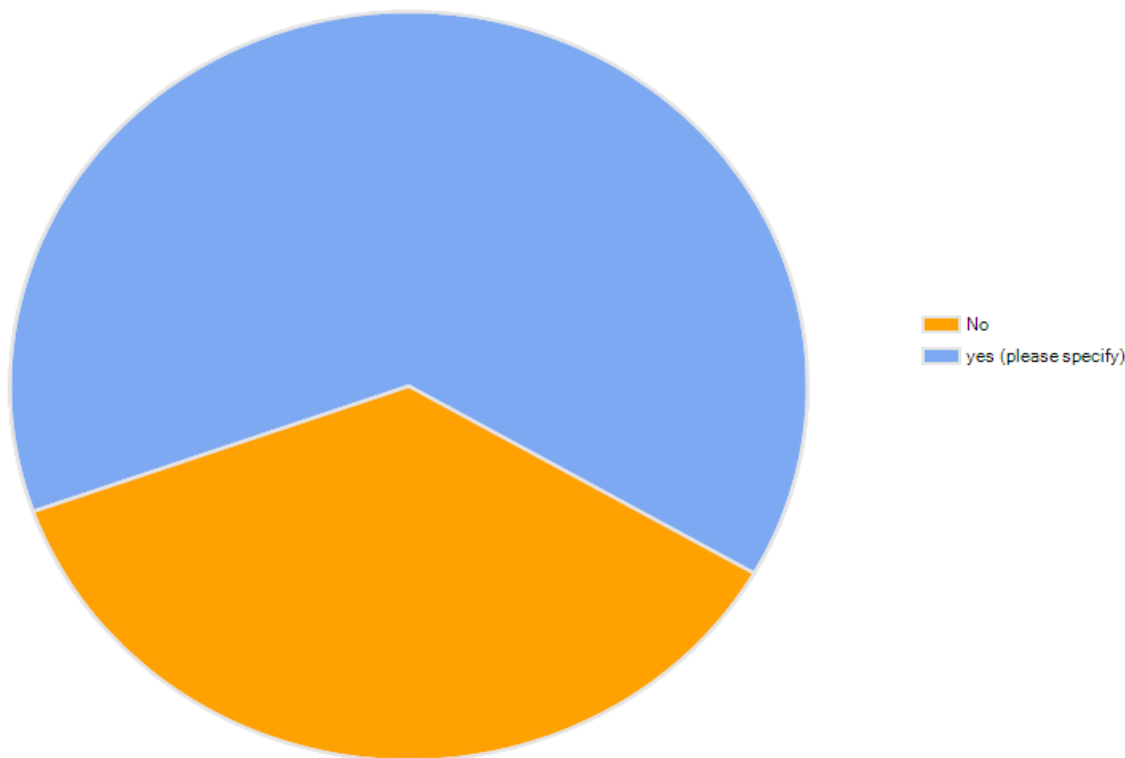


Figure 18: Proportion of respondents who answered yes or no to Question 6

There is also a lack of published, overtly negative responses from non-experimental archaeologists on the relation between experimental and experiential archaeology. Blake's critique of Ryder's paunch cooking experiments was one of the more prominent that came up during a survey of the literature (Ryder 1969, Blake 1969, Ryder 1970). A modern example may be found on the website *Bad Archaeology* (<http://www.badarchaeology.com/>), which is run by a professional archaeologist and an archaeologist currently undertaking PhD research (Fitzpatrick-Matthews & Doeser 2012). The website seeks to identify myths and examples of bad practice in archaeology that often get presented to the public. While experiential and experimental archaeology are discussed in the same post, there is a definite line drawn between the two (Doeser 2011):

Experimental archaeology could tell us what it was like to build an Iron Age roundhouse, what materials were required, how many people were needed and how long it took to build.... What experimental archaeology did not tell you was what it was like to live in Iron Age Britain. It could only tell you what it was like to live as a modern person living like an Iron Age Briton.

...

Experiential archaeology may be a more honest way of describing an attempt to access the past human existence. To live like an Iron Age community is more than simply playing dressing-up. We can discover what it was like to spend days without shelter and the feeling of elation when you bag a deer or two, butcher the animals and sit by the fire sating our primeval bloodlust.

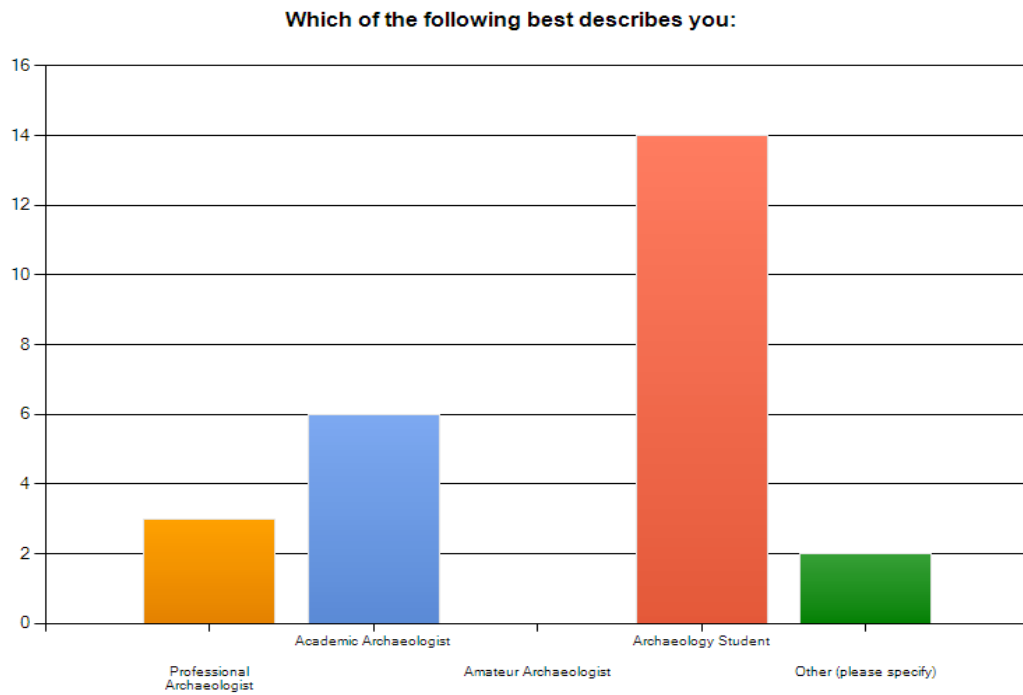


Figure 19: Description of respondents with no experience with experimental archaeology

Figure 19 reflects the relation to archaeology expressed by the 25 respondents that answered 'no' to Question 6. This shows that the majority are archaeology students of one sort or another. The fact that there were no directly negative comments from this group indicates that there is a general acceptance and acknowledgement of experimental archaeology, both among students and among academic and professional archaeologists. However, even amongst academic archaeologists, the view of experimental archaeology seems to be more focused on its experiential and 'discovery' aspects as opposed to theory testing, to which only two of the six in this category refer.

Respondent	Response	Experience
54	...an attempt of physical interpretation of archaeological finds. That is, to reconstruct people's living conditions, tools, weapons, clothing etc., put them to use and evaluate the results. Also, whenever possible, known or assumed manufacturing methods relating to that period in time should be applied.	In the above sense I have a little experience in 'experimental archery'.
52	The replication of archaeological artefacts using the tools and materials available at the time of a site's occupation . The goal is to better understand the manufacturing process or more generally to gain new insight into the things found in the archaeological record (e.g. tools, structures, etc.). Experimental archaeology improves your ability to recognize artefacts and to interpret them.	As an undergrad, I spent time helping a PhD student who was studying use-wear on lithics. We spent specific time intervals scraping hides, cutting wood, scraping wood, etc. with expedient flake tools.
51	Experimental archaeology is the use of actualistic studies to help empirically understand the archaeological record. This includes studies of artefact (stone, bone, ceramic, metal, etc.) replication, artefact decomposition/preservation, the impact of flowing water on site preservation, artefact use and use-wear, among many others.	I have experience replicating prehistoric chipped stone tools to better understand the manufacturing process and debitage analysis.
26	It seems, to one who is not engaged in it, to consist largely of playing with stuff, experiential rather than experimental, and lacking in scientific rigour.	Some experience at undergraduate level only
21	A mishmash of people who like to try out things with no proper theoretical or philosophical basis.	Making copper axe, smelting copper, making fire, making shelters.
4	(Re-) discovering ancient or past praxis of (primarily) material culture by actively exploring all options for a given setting (the use of certain objects or combinations of objects in a certain context) to find out on an experiential , first-hand basis how this past praxis might've been operation-able (next step then is combining it with historical theory & formulating a hypothesis).	As member (& secretary- of a Belgian open-air / ' living history ' museum focussing on the Celtic time-period around 54 B.C. Focus is on Celtic culture, farming, fighting, living conditions, crafts

Table 28: Description of experimental archaeology by those that answered 'yes' to Question 6, and their experience

Of those who classified themselves as academic archaeologists and answered 'yes' to Question 6, only two referred to either theory or hypothesis testing in their response to Question 5. Instead, the main focus was on 'understanding' and 'recreating' past processes. However, the archaeology students were much more likely to use phrases that indicated scientific procedures and hypothesis testing.

Of the example responses listed in Table 28 only two expressed a negative view of experimental archaeology, which are highlighted. A third, Respondent 53, also mentioned a negative experience with experimental archaeology:

Helped build a roundhouse once. Lots of experience with experimental archaeologists— they're often quite strong characters and often aren't as interested in the archaeological evidence as you might expect! (Appendix 1)

Additionally, a fourth respondent, who also had personal experience with experimental archaeology, had this to say about experimental and experiential archaeology in answer to Question 12:

Many activities called experiments are experiential, or learning activities rather than true experiments. (Respondent 23, Appendix 1)

These negative views appear to stem from personal contact with people conducting 'experimental archaeology' as indicated by how respondents described their own personal experience with experimental archaeology. In fact, Respondents 26 and 23 had been students at the University of Exeter. Respondent 21, however, did not list an institutional affiliation and described themselves as 'someone who messes around with hot fires'.

The results of this section of the questionnaire would indeed indicate that when people think of experimental archaeology, they are more likely to think of the experiential aspects associated with the method. However, this does not necessarily mean that because of this association they will have a negative view of experimental archaeology.

This has shown that there is often a conflation of experimental archaeology and experiential archaeology. This makes sense as experimental archaeology is a form of experiential archaeology, as discussed previously. It is difficult to tell whether this conflation has manifested itself in negative terms regarding how experimental archaeology is accepted in academic research. Despite the many definitions described in Chapter 1, the conflation of experimental and experiential archaeology by people that do and do not do experiential archaeology still takes place. However, this parallel condition illustrates that while there is some blurring of lines, within experimental archaeology there are still recognized distinctions between the two categories, such as the use of the scientific method and hypothesis testing and/or control of variables. However, much of the knowledge that is required to develop and conduct archaeological experiments can be gained only through experience.

What Experience Can Provide

In many ways, good experimental archaeology is dependent on experience. This includes experience and knowledge concerning the development of experiments and the application of the experimental method along with taphonomic, chemical, physical and a host of other processes. However, it can also be dependent on experience with craft skills and processes regarding

production and use. Outram here describes issues regarding what happens when researchers lack this type of experience:

...it is no different, perhaps, from some of the amateurs are doing replicative activities. They don't have a grounding in experimental design and how you control the variables, record properly, and so on and so forth. So, for some people there is an inefficient science background. But then, even if they have the science background, you can also end up with the academics having a level of practical naivety. [For example], they're doing experiments in a scientific fashion, but their parameters are all wrong because they don't understand the processes at all. (Outram Interview, Appendix 6)

There are ways of addressing this issue; two practical ways are either to refer to experiments and experiential studies that have already been conducted or to learn about such processes from a skilled crafts person.

Having and Learning Craft Skills

Many people that have experience in experimental archaeology decide to gain some sort of knowledge regarding the use of traditional processes, such as food procurement, and a craft skill, such as the production of tools. For example, Outram discussed learning about butchery practices as part of zooarchaeology modules while at university (Outram Interview, Appendix 6). Gaining such experience in an academic, educational setting not only meant that Outram understood more of the processes, but he was also left with the impression that 'you should have some experience in what you're talking about' (Outram Interview, Appendix 6).

Often, researchers have to move outside of academic circles to learn craft skills that are important in developing experimental archaeology, although this gap is sometimes addressed in educational modules, as in the case of Outram. Other examples include the MA course at Exeter, which teaches several different craft skills, and UCL, which has an introductory week that focuses on learning about primitive technology. Hurcombe supplies an example of researchers going out of their way to gain knowledge and experience about craft skills:

I talked to people that I met in the pub who were survivalists....

[I was]... aware that maybe some of the things [I was]... interested in just weren't written down. [I]... needed that kind of personal contact to get information.

Having had Binford come to Southampton when I was there as an undergrad, he also visited Sheffield when I was there, [was useful]. I was struggling to find out details of hide working processes. I knew he'd actually seen such processes, but all too often when I read the accounts that were written down, it would say, '...and the women made the hides'. This was very frustrating. What I was able to do was corner Binford in a pub and

ask him some really practical details.... It was great, because there you have somebody who's actually done that ethnography, and he knew those practical details, but nobody else did. You really got a sense that he was breaking new ground. (Hurcombe Interview, Appendix 10)

Schindler took a similar route; he purposely sought out different craft persons in his region so he could have a greater understanding not only of flintknapping, but also of ceramics, textiles and other crafts. This knowledge he then put towards his own archaeological research (Schindler Interview, Appendix 5). Some experience with primitive craft skills can lead to an interest in archaeology, as it did with both Schindler and Bradley (Appendix 9). For my own undergraduate research, I took an approach that moved beyond the normal boundaries of archaeological research but stayed within an academic institution by studying weaving and textile production at the university level.

For the online questionnaire, several of the respondents described their experience with experimental archaeology in terms of experience with craft skills. Those whose responses focused primarily on craft skills are listed in Table 30 and the craft skill is listed as well, although several others mentioned crafts in relation to experiment.

Respondent	Experience
56	Flintknapping; production and use of stone tools; teaching
51	Stone tool production
46	Flintknapping and butchery
35	Flintknapping
3	flintknapping
27	Flintknapping; cooking/baking
32	Flintknapping; creating ceramics and twine
21	Making a copper axe, smelting copper, making fire, making shelters
16	'recreation' of kiln; flintknapping; pottery production
14	Flintknapping; native plant harvesting and cookery; atlatl construction

Table 29: Descriptions of experience with experimental archaeology, Questionnaire Question 6

This illustrates two things: first, that experience with craft skills and ancient processes is a key

component in much of experimental archaeology, and second, that the two are often conflated. Despite the insistence of Reynolds and others, such learning experiments continue to be put under the experimental archaeology banner, even when they are undertaken for reasons other than experimentation.

The skills that researchers can learn through their experience with archaeologically important craft skills and processes can lead to them asking new questions and developing or contesting hypotheses. However, increasingly, there is the issue of how to make this experience relevant to developing experiments and how to quantify such experience. As the previous table illustrates, there is a definite issue with such experience being perpetually stuck in the experiential stages. In the above quotation, Outram illustrates a case in which an experiment was damaged by the researcher's lack of knowledge and skill regarding heat treatment. Some have argued that the skill level of those conducting or participating in experiments should be properly reported, as Eren does here:

... I don't think a lot of people realize you've got to keep up whatever [skill], whether it's pottery or... flintknapping.... Skill level is important, and people should document their skill level when they're doing experiments just to make them more replicable. You could have two different results, in two different experiments, and that could be really confusing. But, if the skill level of the two experimenters is different, well, there's your explanation. Those two experiments would then just speak to different aspects of the archaeological record. They're both still valuable. (Eren Interview, Appendix 8)

This moves the discussion from what experience can give us to how to work such experiences into the framework of experimental archaeology. There are ways of integrating experiential aspects into experimental archaeology that make it applicable to archaeological research. One traditional method has often been referred to, particularly in the US, as Living Archaeology. Another is the exploration of experience in post-processual and phenomenological archaeology.

Living the Archaeological Experience

Living archaeology projects are an area where experiential investigations can be conducted to address archaeological questions in a positive way—forming a modern analogue that functions in some ways similarly to ethnoarchaeology. There have been several living archaeology or living history projects over the years, with varying degrees of scientific rigour. One of the most popular projects in the UK was the *Living in the Past* television programme produced by BBC in the late 1970s. Peter Reynolds acted as a consultant for the show; however, it was more oriented towards public entertainment than academic research (Shaw & Reynolds 2007).

Below are two examples of living archaeology taking place for reasons of academic research, both of which are from the US.

Errett Callahan and Living Archaeology

Perhaps one of the most well known archaeologists to have undertaken living archaeology actively is Errett Callahan. His earliest such project was the Old Rag Project, which began in the early 1970s and was later followed by others, such as the Pamunkey Village Project (Watts 2008, p.33). According to Callahan, this initial living archaeology project was inspired by a quotation from John Pfeiffer:

Perhaps the ultimate step, the ultimate experiment in living archeology, is to become a prehistoric individual for a time and live entirely on what you can get from the wilderness. (Pfeiffer 1969, p.367 / 1972, p.418 in Callahan 2008, p.8)

It was not until 2008 that the project was completely published in *The Old Rag Report*; this describes the 30-year project, which began as simulation of an early woodland-like encampment in the woods of Virginia (ibid, p. 3). The project was part of a course that Callahan taught at Virginia Commonwealth University entitled *Experimental Archeology 499-E: a Sampling*. The following is a description of the course from the 1972 course catalogue that Callahan reprinted in the *Report* (Callahan 2008, pp.36-37):

THE SUMMER COURSE will zero in on one period of time and reconstruct the total patterns of living as we know it. The course would start with a detailed study of the people, culture, and tool-making traditions in question and proceed to replicate such of the artifacts as are portable; and it would culminate in a two week stay in the mountains testing our tools and our knowledge. We might move in with only the paraphernalia such as would be expected to be carried by the wandering band in question, set up a semi-permanent camp, and carry out the necessary extraction and maintenance duties. Careful records would be kept and compared to actual archeological evidence, and these in turn would help in subsequent interpretation of our site.

After this initial phase, Callahan conducted a 25-year long study of the site after it was abandoned, and he documented its development into archaeology (ibid, p.3). During this time, early editions of the *Old Rag Report* were published, although in very small batches of 50 copies each (ibid, p.45). Despite these early publications, Callahan was unable to find a major publisher to carry the report and received criticism from a colleague that led to the *Report* not being published in full for 30 years (ibid, p.45 and Appendix 26 which has been included in

Figure 20 Appendix 26 (Callahan 2008) below).

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Figure 20: Appendix 26 (Callahan 2008)

This final publication (2008) contained not only records and notes from the project, but also Callahan's reflections on the events, processes, and experiences. Most notably he recorded how much energy was required to complete the tasks that had been set. There was also a definite emotive element to the reports, as mentioned by Hayden (Figure 20), as they not only recorded the development and decay of the site, but of the surrounding area, the people that lived there, and Callahan himself as well. While potentially viewed as an 'unacademic' or 'non-scientific' approach, Callahan's writing was highly reflexive in parts and reflected the experience of the participants. It also contained an account of the excavation of the site that was eventually carried out and the results of analysis, including use-wear analysis of the artefacts used during the initial stage of the project.

Callahan went on to conduct a number of other living and experimental archaeology projects, such as the Cahokia Pit House Project and the Pamunkey Project (Callahan 1981), and he published a wealth of articles on experimental archaeology and primitive technology. However, many are not in traditional academic journals.

Schindler's Living History Project

Callahan's work, despite issues in publishing, has influenced others. Bill Schindler, another American archaeologist who worked with Callahan, conducted his own living archaeology project as part of his thesis research (Schindler 2003), which involved students from Temple University. During our interview, Schindler discussed the project and the experience gained through living archaeology. Set on the Delaware river, the project looked a phenomenon where large amounts of people seemed to gather in the area to take advantage of fish resources. Part of the project included replicating processes and artefacts that may have been used over 2000 years ago by inhabitants, but it also included detailed recording techniques and the development of several hypotheses:

How much labour is needed to do all the things that we're talking about? How long can these fish be stored for? What kind of tools are involved with all this processing, and the catching, and all this? Maintenance repair, all this stuff?... I found out several interesting things. I got a lot of information on labour, on tool use, the function of tools, life of tools.

One of the things that I did was I setup this form system, which took me a year to be able to set it up. Once I setup this form system that worked from when you go to get raw material, it follows the life of that material all the way to the finished tool, every time that it's picked up and used. So, I can look at the form and the database, and say, 'Okay, this particular knife took this long, literally from accessing sinew, and stone, and everything else, it took this long to make these pieces.' This is every time it's been used....

I had 13 or 14 people out there. It took a couple of years to make everything, and then we were out there for two weeks. [We undertook a] simulation of a middle woodland fishing station. The great thing is we left and we didn't go back and proceeded to watch it. My dad is a land surveyor, so he actually pointed... everything we left behind, which was kind of neat. (Schindler Interview, Appendix 5)

This quotation from Schindler indicates just how experience gained through living archaeology can be used to address archaeological questions. While such activities may be more experiential in action, the data gathered can be used to test hypotheses, especially if proper recording takes place. Figure 21 is an example of the forms used by Schindler in the Living Archaeology Project. Such methods can help to make living archaeology a more viable form of archaeological data.

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Figure 21: 'Master Tool Form Instructions' (Schindler n.d., Project Forms)

These projects, while intrinsically valuing the importance of the experience of the participants and the knowledge that can be gained from such research, often focus on the processes being conducted and the materialistic outcomes, such as use-wear and taphonomic processes. However, the Old Rag Project is a perfect example of an issue that plagues many forms of experimental and experiential

archaeology: publication and dissemination. This is also an issue when experiments or living archaeology is done as part of dissertation or thesis work.

Experience, Phenomenology, and Post-processualism

As has already been discussed, there is no definite line between much living archaeology and experiential archaeology and phenomenological/post-processual informed experiential archaeology in form. However, there is a difference in an expressed theoretical framework and the sort of questions that are being asked. Experimental archaeology is very often associated with behavioural and processual archaeology, while the living archaeology projects discussed previously looked primarily at material issues. While portions of the Old Rag contained reflective, personal accounts, much of the analysis, such as the use-wear analysis, focused on material issues.

However, material studies can be informed through such reflective (and reflexive) thinking and the incorporation of phenomenological framework, as illustrated in interview with Hurcombe. When asked about trends in experimental archaeology, she replied that, in the context of use-wear analysis, highly 'scientific' approaches were often valued over 'practical experience and qualitative deductions' dependent on where in Europe you were (Hurcombe Interview, Appendix 10).

A Danish use-wear person, Helle Juel Jensen, she once encapsulated it for me, she said: 'There are the polish police, and the polish players'. You can play with trying to understand wear traces using experiments, and you can get a long way further on with this approach because you can think 'it could be this' and then think through other things to look for as sets of evidence or ways of trying to develop new experiments to help. Or, you can say, 'We don't know anything for sure objectively, and therefore, we can't say anything.' (Hurcombe Interview, Appendix 10)

This offers an insight into how there are two sides to some material studies, such as use-wear, in which there are researchers who believe the approach has to be controlled and scientific and there are those that recognise that experiential learning, such as through 'playing around' with materials and processes, can help to develop ideas and questions. Additionally, interests in perception have spread to other areas of research that may not be overtly phenomenological:

There's also a real resurgence in interest in experiential experiments because of phenomenology, and not everybody who does those would necessarily phrase it, as Tilley has, as phenomenological issues. But nonetheless, that is, I think, what's crept into the experimental archaeology profile across Europe, as a whole, and the States. At the conference in Östersund a few years ago now, it was very much a theme that there's

a resurgence, and there were archaeologists from all over Scandinavia that are working more with experimental archaeology. That was one of the conclusions that conference drew, and I think it's quite right. But on the other hand, I'm not sure that very many of the people who went to that conference would have necessarily read all of the stuff [on phenomenology]; read what Tilley was producing, for example. So, it's more, it's a much looser definition of phenomenology. But I think it's because we realize that we don't know some of the sensory experiences of the past. So, when I've written on that subject in recent years, I have talked about sensory perception and ways of using experimental archaeology as a way of understanding things that, otherwise, we have no window on to at all. (Hurcombe Interview, Appendix 10)

For example, the session *Archaeologies and Soundscapes* dealt, in part, with perception and the use of soundscapes and artefacts with the aid of both ethnography and experimental archaeology, such as in the paper presented by Garcia and Lopez (Garcia & Lopez 2009, p.18; Reeves Flores 2010a), which used reconstructed instruments at different rock art sites to see if they were linked audibly to one another. A British example is Marshall (Marshall 2009; Reeves Flores 2009; Reeves Flores 2010b) who applied acoustic modelling technology and artefact reconstruction/simulation. Marshall later published *Breaking the Sound Barrier— New Directions for Complexity, Transformation and Reconstructive Practice in Experimental Neolithic Archaeoacoustics* (Marshall 2011).

As discussed in Chapter 3, several people have claimed that experimental archaeology has historically been rejected by post-processualism. Some brief examples of this not being the case are mentioned here, and the relationship between experimental archaeology and post-processualism is further explored in Chapter 9.

Reclaiming Experience

In addition to archaeological work that intrinsically or outwardly accepts the idea of the experiential side of experimental archaeology, there are also examples of people purposely identifying and celebrating the value of each while recognizing that they are different things. Throughout this section, researchers have pointed out the positive aspects of experiential archaeology (Whittaker 1996, Ch'ng 2009, Hurcombe Interview). Outram also acknowledged the importance of experience while highlighting that there should be a clear line between experiential and experimental, noting that 'from an academic point of view, it is clearly beneficial to maintain a clear distinction between what is 'experimental' and what is 'experiential'. Experiential activities can be very valuable and can be easily associated with an experiment to add to a public or educational (translational) element, but

that potentially positive by-product should not be allowed to create confusion over experimental aims' (Outram 2008, pp.3-4). Is there a viable way to 'embrace' the value of experiential archaeology but avoid conflating it with experimental?

The Experimental Archaeology Conference, Aberdeen, 2009, attempted to address this very question (Figure 13) (University of Aberdeen 2009). Here, however, the experiential aspect of learning craft skills is viewed as a part of experimental archaeology instead of an associated practice or part of experiential archaeology. One attendee of the conference, who also responded to the online questionnaire, had this to say about the conference:

I went to the Aberdeen conference and they hadn't a clue about basic experimental methodology. These weren't experiments, and the majority were completely useless in terms of the information gathered because it wasn't useable by anyone else. Almost nobody describing themselves as 'experimental archaeologists' carries out a robust repeatable experiment. In particular, I was astounded by the idea that you 'HAD TO USE AUTHENTIC' techniques, when it was painfully obvious the variation in output from e.g. bonfire fired pots was so great as to make the experiment burying the pots completely utterly useless except as a 'nice' anecdote. Honestly, whilst a few provided useful information, the lack of any understanding of what they were doing meant that most of the projects were a waste of time. (Respondent 21, Appendix 1)

It is also claimed that researchers' interest in gaining craft skills is new. As shown in Chapters 2 and 3, this is not the case. If anything, archaeological interest in craft skills and use of artefacts can be seen to predate the use of well-formed experiments. The *Experiment and Experience: Ancient Egypt in the Present* conference, Swansea, was inclusive of both experimental research and experiential activities without openly conflating the two whilst acknowledging a long history of experimental and experiential work in archaeological research (Reeves Flores 2012b).

The last paragraph (Figure 13) seeks to acknowledge a dichotomy between those who employ experiential archaeology and those who use academic archaeology. There are issues with integrating experiential archaeology into mainstream archaeological research. For example, in the previous section on living archaeology, it was shown that a main issue is publication, even with work done within an academic setting. However, it was also shown that many academic archaeologists that use experimental archaeology have actively developed knowledge about craft skills, often even within the academic system. However, these researchers do not stop at the experiential stage, and instead apply such skills and knowledge to the development and actualisation of archaeological experiments.

It is worthwhile for researchers to present experiential activities, when appropriate, at conferences and in print. However, this should not take the place of experimentation, or be presented as scientific, when it is not:

I think people need to definitely understand what science is, what an experiment is. And again, I'd like to just emphasize that even though it annoys me when people try to masquerade non-scientific approaches as science, that doesn't mean that those non-scientific approaches are not valuable. They're just not scientific. I mean, they give us information about things [in] a different way. They give us a different sort of information. I think one thing, too, it takes a lot of work to keep up one's skills. (Eren Interview, Appendix 8)

What is required is that the theoretical frameworks surrounding experiential archaeology, as well as experimental archaeology, be more actively embraced and developed. The two have links since, as stated at the beginning of this section, experimental archaeology is a way of experientially exploring archaeology. The process of developing and designing valid archaeological experiments can frequently depend on information that is often gathered through experiential activities, such as learning craft skills and working with materials to develop hypotheses. However, it has the additional requirement of employing the scientific method. More work should be done to make experiential archaeology more applicable to archaeological questions and to make it easier for experiential knowledge to be developed further.

Here we looked at living archaeology as a way for experiential practice to help develop archaeological questions and approaches. Individuals who had links to both academic archaeology and non-academic archaeology conducted the examples here. Indeed, much of the experiential work that takes place is done in museums and by public education centres and 'amateurs' and/or non-academic archaeologists. While this study focuses primarily on experimental archaeology within academic archaeology, much of the work in both experiential and experimental circles is done without. This is why it is important, after looking at the relationship between experiential and experimental archaeology, to look at the relationship between academic and non-academic archaeology.

Chapter Eight: Academic Experimental Archaeology and the Relationship with 'Non-academics'

There are several varieties of non-academics that are related to, and work with, experiential and experimental archaeology: people that work in museums, craftspeople, amateurs and professionals not associated with an academic institution. The role of such individuals and groups 'has been considerable, and experiments are one of the all-too-few aspects of serious archaeology still open to such people' (Coles 1979, p.248). Some non-academics may be interested in experimental archaeology for reasons that differ from those of archaeologists (Coles Interview, Appendix 3):

Some, like I, wanted to experiment to better understand the archaeological evidence. Others, perhaps not so firmly engaged in academic studies and work, began experimental projects for their own sake—because they wanted to work with e.g. farming practices, house-building, musical instrumentation.

For years, centres such as Lejre, West Stow and Butser have often relied on such people, producing both experimental and experiential archaeology of varying quality. However, how does academic archaeology relate to this group of researchers and institutions? It has been argued that, while much experimental and experiential work is done in these sorts of contexts, or perhaps because it is often done in such contexts, experimental archaeology remains on the periphery of academic archaeology:

Archaeology has a long-standing interest in experimental work. However, for a very long time experimental archaeology was given little space in university circles, and was to a large extent performed by amateurs. (Gräslund, 1999, p.ix)

...

I will argue that the marginal status of experimental archaeology derives from two aspects of this history. First, as an approach experimental archaeology is seen as a recent development with shallow roots in the discipline. Second, the lay status of the amateur expert and public performance of experimental archaeology seem to have diminished its credibility as either academic or professional. (Forrest 2008b, p.62)

Outram notes that this blurring of the boundaries between experiments, experiences and re-enactment and the fear that it affects academic perceptions of experimental archaeology is why people such as Reynolds have established a 'strong rejection of anything not truly experimental' (Outram 2008, p.3).

Again, this partially has to do with the varying reasons as to why people do experimental

archaeology. If it is done more for publicity or to get the public interested in a museum or in the past in general, the application of the scientific method may be pushed to the side-lines (Coles Interview, Appendix 3):

I think that experimental archaeology as we have come to define the term has continued and developed well in some areas of the world, in Germany and neighbouring regions, for example. In other areas, the subject has either diminished in its practice, or, more often, it has become a part of the normal processing of the evidence and so does not receive any special attention. Exceptions to the latter are the more visible and often spectacular efforts, e.g. boats, major structures, exceptional objects that receive much publicity and perhaps the scientific basis is diminished because of the need for visibility and effect.

It is also important to remember that there are often multiple issues that can affect social relations, and this applies to how academic archaeologists view work from non-academic persons and institutions, as well as to how non-academics view academics:

One of the problems we have in the US is the poor quality of education for lower class students and the prohibitive cost of higher education in the US. I have encountered brilliant, creative individuals who have designed elegant, scientifically exacting experiments with no academic training. However, because of their limited educational backgrounds, they are often suspicious of 'academia', are not comfortable elaborating on theoretical implications of their research, and are poorly equipped to write up their data. (Sidoroff Interview, Appendix 11)

The descriptions of experiences in Table 30 are from two respondents from the online questionnaire. Both described themselves as academic archaeologists and mentioned that they had experienced working at open-air centres/museums. Neither said anything negative about experimental archaeology or their experiences at such locations. Column 3 reflects the fact that both believed that experimental archaeology is often 'an acceptable methodology to use when researching archaeological questions'.

Respondent	Experience	Response to Question 10:
69	Volunteer work at Plymouth Plantation and at Butser Hill	Often
63	'...collected samples for scientific analyses from earthworks and buildings from several experimental sites experimental archaeological sites in the UK and Denmark'	Often

Table 30: Online questionnaire respondents who describe experience with non-academics or open-air centres

In fact, the most 'negative' respondent was not from an academic institution and actually cited a conference as an example of why experimental archaeology is bad (Respondent 21). This might indicate that it has more to do with how experimental archaeology is presented in academic circles. After all, academic archaeologists are not the target audience of museums and open-air centres, but are more likely to come into contact with experimental archaeology through published research, conference presentations and work being conducted by other academic archaeologists. For example, Respondent 26 indicated a view of experimental archaeology where it is not scientific and more oriented towards personal experience (see full quote in Table 28 on page 154), though their experience stems from interacting with the topic whilst an undergraduate at the University of Exeter. However, experimental archaeology is not formally taught at the undergraduate level at Exeter; the focus at the undergraduate level is more on experiential activities, such as skill acquisition and primitive technology. In fact, in my experience, much of the time on experimental archaeology courses is often spent on skills acquisition and learning about processes in preparation for developing experimentation.

One would hope that trained archaeologists could tell the difference between experiential activities labelled as experimental archaeology and actual experimental archaeology. Although, if a fellow student or academic were to see these activities only, and not a final product in the form of a well-developed experiment, they perhaps could not be blamed for thinking this was the main focus of all experimental archaeology. This may account for the responses in Table 27 on page 151.

From the evidence gathered, there is no real indication that the association of experimental archaeology with amateur and non-academic groups harms its reputation in academic archaeology any more than poor academic examples of experimental archaeology do; more research is needed to understand fully how academics see its role.

It may be that academics engaged in experimental archaeology are more worried than is necessary about experiential activities conducted by non-academics. This no doubt stems from a need to define experimental archaeology and its role in research. This can perhaps be achieved by embracing quality experiential archaeology and encouraging those conducting such work to label it as such, instead of over using the term 'experimental archaeology'. Bradley (Appendix 9) is most probably right in stating that experimental archaeologists are unnecessarily bogged down in such semantics. From the data collected here, there is no overall indication that experimental archaeology is rejected in mainstream archaeology because of its ties to amateurs and non-academic institutions,

as claimed by Forrest (2008b). However, considering this idea is so prolific in experimental archaeology literature, more research, such as perhaps interviews or surveys of academic archaeologists only, is needed to explore this issue further.

Returning to Craft Skills⁶

Another aspect of the relationship between academic and non-academic experimental archaeology is the argument that collaboration with non-academics, especially crafts specialists, is an integral part of developing sound experimental archaeology.

Collaboration in experimental archaeology is an issue that arises repeatedly. As discussed in the previous section, archaeologists often collaborate with craft specialists and those with knowledge of primitive skills. In addition, almost all of the interviewees who have practised experimental archaeology in an academic forum have worked with open-air centres at one point or another including, but not limited to, Bell (Appendix 4), Hurcombe (Appendix 10) and Schindler (Appendix 5).

The opinions and skills of craft specialists should be taken into account when setting up experiments. If the experimenter chooses to ignore this and start from scratch, they are not experimenting at all but merely having a go at something interesting. Have some respect for experts who know what they are talking about and have some respect for ancient craftspeople. Forging, building, spinning and weaving were not learnt in a week! (Respondent 43, Question 12)

In the last chapter, it was shown how archaeologists sometimes collaborate with non-academics, particularly craftspersons, to gain experience that can be applied to experimental archaeology. The importance of such collaboration was highlighted. Indeed, the importance of cooperation with a variety of non-academic persons and institutions is often discussed, although such discussion often focuses on how cooperative opportunities should be increased (see quotes from Respondent 43, as well as the quotation from Schindler on how the US needs an experimental archaeology centre).

In addition to working with crafts specialists in an experiential sense—such as learning skills from

⁶ Here, and throughout the thesis, the terms craft specialists and craft persons are used to refer to those with significant knowledge in traditional crafts such as basket weaving, metallurgy, etc.; as well as those with significant knowledge in 'primitive' technologies such as flintknapping, fire production, etc.

them—experimental archaeology occasionally employs craft specialists in the experimental process itself. For example, Frances Liardet's PhD work, which she has presented at numerous experimental archaeology conferences, is a good example of grounding experiential archaeology and the cooperation of craft specialists in academic archaeology research. Liardet incorporated her role as apprentice glass bottle maker into an experiential and experimental framework while working with an established glass production specialist (Liardet 2009c; 2009b; 2009a).

Those interested in academic experimental archaeology should continue to develop their own experience with crafts and processes and establish cooperation with those that already have such knowledge. However, as one respondent pointed out:

I think that too often experimental archaeologists make judgements based on their performance in building or creating an object, structure, etc. without taking into account past fitness levels, supplies or expertise. (Respondent 11, Question 12)

This is an issue that has been addressed in the experimental archaeology literature. This may also be linked to the fact that those conducting 'experiments' lack a clear aim such as a hypothesis or goal. This is an issue that can affect the presentation of the experiment or experiential activity when it comes to writing it up and publishing:

It is likely that the authors are, in fact, simply writing up a practical, experiential activity, after the fact. The content may be interesting to like-minded specialists, but, in many cases, the decisions relating to materials and recording methods would be very arbitrary because of the lack of clear aim. This may limit the usefulness of the activity somewhat. Such experiential reports are not without value, however, and are frequently published in journals like EuroREA (in Europe) and the Bulletin of Primitive Technology (in America). Such works are less likely to be accepted in more academic journals. (Outram 2008, p.4)

Without a well-defined plan, material selection can be affected, and researchers are less likely to incorporate participants who are knowledgeable about the process under study. In fact, such experience can often help to develop theoretical questions. One aspect that often comes with a theoretical basis in academic archaeological research is the realization that such activities are not strictly how they were done in the past. Craftspeople and specialists can supply the skills and knowledge, but it is the role of the archaeologist to make this knowledge applicable to studying the past.

Experimental Archaeology Out in the Open

The discussion of experimental archaeology becoming an overall term was initiated and primarily discussed by archaeologists working at open-air research centres. Here they interact daily with the public and thus reflect on experimental archaeology as an overall term and method in this context. Yet other contributors do not touch upon the issues relating to the public. They rather focus exclusively on the experiment as a scientific method in research and its implications. (Hansen 2012)

There are other ways to benefit from links to non-academics outside of the study of craft (as discussed in Chapter 7). There have been several studies, particularly from the University of Reading, that use information from open-air centres to study taphonomic issues. Martin Bell, who is heavily involved in the Experimental Earthwork Project (Appendix 4) is also involved with Butser Ancient Farm. As part of the project *Developing experimental approaches in archaeology*, researchers at the archaeology department there undertook several experimental studies that focused on depositional and taphonomic processes at Butser, Lejre, and Fishborne and at the Peat Moors Centre (University of Reading n.d.). Here we will look at work that has been done by academic British and American archaeologists at the open-air centres of Lejre and Butser.

Lejre

Academic collaboration at Lejre, especially of the international sort, is nothing new. Since the 1960s, the centre has usually supplied researchers with small grants to come to Lejre and undertake research there during the summer. While the centre is highly geared towards public presentation and education, experimental and experiential work by academics still takes place there, and abstracts of some of this work can be found on the centre's website. Archives of many such experiments, going back to the 1960s, are stored on site; and those interested in using them for research can request access. Table 31, below, lists several of the projects listed on the website that have been undertaken by UK and US researchers since 2001. It is limited to researchers who indicated that they were associated with an academic institution. The project title, researchers and institution are included (Sagnlandet Lejre n.d., Experiments):

<p>The Experimental manufacture of Maglemosian and Neolithic Ground Stone Points Farina Sternke (University of Glasgow) & Lotte Eigeland (Norway)</p>
<p>Apprenticeship in European Palaeolithic Societies Farina Sternke, Arkæolog, (University of Glasgow)</p>
<p>Chopping, scraping and splitting: Working wood, bone and antler with a lower Palaeolithic Clactonian tool kit Hannah Fluck, (University of Southampton)</p>
<p>A study of hand use in prehistoric activities Natalie Uomini, Ph. D.student, (University of Southampton)</p>
<p>Exploiting the efficiency of non-flint raw materials in prehistoric lithic production II Farina Sternke, Ph. D., (University of Southampton) Lotte Eigeland, Oslo, Norway</p>
<p>Identification of flint knapping by children at Stone Age settlements Mikkel Sørensen, PhD archaeology, SILA, Copenhagen, Denmark and Farina Sternke, Ph. D student, University of Southampton</p>
<p>Combat analysis of Replica Bronze Age Weapons Catherine Anderson, University of Edinburgh</p>
<p>Feeling Fragments of The Past: Plant Cordage Technologies as Fabrics—Understanding by Looking and Touching Linda Hurcombe, University of Exeter</p>
<p>Reversible Double-Weave on the Warp-Weighted Loom Katherine Larson, University of Washington</p>
<p>Comparing micro-refuse assemblages from known activity areas to those from the Late Iron Age/Roman site of Silchester, Hampshire, UK Rowena Yvonne Banerjea, (University of Reading)</p>
<p>Prehistoric cordage and fabric: flint serrated edges, plant processing and the Tybrind Vig fabric Linda Hurcombe, (University of Exeter)</p>
<p>Butchery: Comparative study of the techniques, processes and practices involved in carcass dismemberment and meat production Krish Seetah, PhD student, (Cambridge University)</p>
<p>Soil micromorphological investigations into the construction and landscape histories of Bronze Age oak coffin burial mounds in Denmark: experimental mound studies Ann-Maria Hart, PhD student, (Oxford University, England) Helen Lewis, research associate (Institute of Archaeology, Oxford University)</p>
<p>Luftkvaliteten i danske landbohuse Kirk R. Smith, School of Public Health, (University of California, Berkeley) Morten Ryhl-Svendsen, (Konservatorskolen, Det Kgl. Danske Kunstakademi, Denmark) and Geo Clausen, (International Centre of Indoor Environment and Energy, Danmarks Tekniske Universitet)</p>

Table 31: Projects undertaken at Lejre by UK and US researchers

Since 2001, researchers from the US and the UK have travelled to Lejre to conduct research at a rate exceeding one each season. The vast majority are from the UK. This is possible because there

are more established links between the body of UK researchers and European institutions. An additional issue could also be travel costs and distance. However, this does indicate an interest in doing work in open-air centres in the US, and other researchers not associated with academic institutions at the time they were undertaking research, such as Errett Callahan and Steve Watts, have also conducted work at Lejre (Sagnlandet Lejre n.d.). Schindler noted in his interview, which took place in Lejre, that archaeologists could potentially benefit from such an experimental archaeology centre being set up there (Schindler Interview, Appendix 5):

One of the other things that helped organize [the experiment] was that I know Lejre is very big on the public seeing things going on. I wanted to work it out in a way that they would have access to seeing many different things. So, the arrows are made ahead of time,... but they get to see the making of the arrow points, and the hafting, and the hide glue, and the pine pitch, and the sinew and all this; and then the firing on Saturday.

Schindler also notes, while discussing opportunities to learn about experimental archaeology, that 'here in Europe, and places like this, I think there's more opportunity for a graduate that the US doesn't really have. I think that needs to be in place first.'

In discussing the recent developments in experimental archaeology, Bell referred to the work coming out of Lejre as a reflection of experimental archaeology's 'new lease on life' (Bell Interview, Appendix 4). He also mentioned work done there regarding experimental burial mounds as an example of an experiment that addresses a broader archaeology research agenda.⁷

Butser Farm

There were sites like Butser, but they were very much beacons. If you thought of who was doing experimental archaeology in Britain at that time, you would have said Butser, and you probably couldn't have easily named another place. (Hurcombe Interview, Appendix 11)

The work at Butser continues to produce experimental and experiential knowledge regarding farming and building techniques and processes. Some of this work, especially that which may leave taphonomic traces that are applicable to archaeological questions, have been used in wider research. For example, Evershed mentioned that in the 1990s, he used materials from the field experiments at Butser. They 'took soils from the field system, that had been reproduced, carefully treated with manure over a period of years, and published a paper on that. It was very illuminating' (Evershed

⁷ This refers to the project entitled *Soil micromorphological investigations into the construction and landscape histories of Bronze Age oak coffin burial mounds in Denmark: experimental mound studies*

Interview, Appendix 7).

Outram recalls that while at Durham, even though they were not explicitly taught experimental archaeology, they did visit Butser as part of a field trip during the early 1990s when Peter Reynolds was actively conducting experiments at the centre:

I was quite impressed by it, but he [Reynolds] was quite good. I had a very clear understanding of the nature of it being scientific enterprise. He dressed normally in wellingtons, and I actually remember him saying this: 'See, there are electric lights in the hut, so I can see what I'm doing. You know, this isn't about looking authentic like a film set. This is about scientific experimentation.' So, I had that [experience] from the very start of my university career. (Outram Interview, Appendix 6)

This is an example of how presenting experimental archaeology in a scientific manner can make a positive impression on (in this case, future) archaeologists. In fact, Reynolds, the founder of Butser, is still well known for his scientific approach (for example, see Hansen 2012; Townend 2007). However, the scientific 'nature' and presentation of experimental archaeology may be open to criticism. In an interview for the journal *EuroREA* Coles recalls visiting Butser with students during the debates between processuals and post-processuals (Coles in Paardekooper 2009, p.66):

The classes, of about 6-8 students were enthusiastic about experimental archaeology as this was in part during the processual / post processual debates and I always thought experimental archaeology provided a good contrast with these concepts. The students were often very critical of any dogmatic statements uttered by people like Peter Reynolds (or myself), and good arguments about houses, storage pits, plough marks et cetera often took place in the field to the benefit of all parties. Reynolds was a special friend to me and always enjoyed debating the issues of reconstruction / construction, and of decay over time, and variation in methods of work of experience and initiation, and in the slow emergence of a theoretical basis for experimental archaeology.

Coles's story of how his students would question dogmatic statements is an illustration of debate and development in archaeological theory and practice. Bell told a similar, but in other ways very different story. Here Bell and Julian Thomas took a group of students to visit Butser (Bell Interview, Appendix 4):

To me that was a major opportunity to introduce them to a type of archaeology that would give them a new perspective, but it was rather an unfortunate experience really. They developed a pretty robust argument between Peter Reynolds and Julian Thomas about the value of experimental approaches. I think Julian was very critical really, as quite a few theoretical archaeologists were at that stage, of the work done at Butser. Because [post-processualism] challenged the whole value of an experimental approach, I think it tended to mean a gulf developed between the experimental sites and the main developments in theoretical archaeology at the time. I think what that meant was that Peter Reynolds, and probably others, got increasingly disconnected from the academic world. Before that, he had been very linked in with a number of universities, running

week courses for two or three universities, and Peter was a visiting academic at Southampton University. But he became isolated, I would say, from the academic world. That meant that there wasn't enough interaction, and I think it tended to result in a reduction in the scientific report outputs from Butser.

It is difficult to tell the motivation for this separation and from which parties it stemmed. Both stories illustrate, however, the importance of being able to take part in addressing archaeological questions and theoretical debate. Perhaps what is needed is for experimental archaeologists to continue to integrate scientific application and method, as well as forms of presentation, into research whilst embracing and exploring the applicable aspects of experiential archaeology through methods such as living archaeology and phenomenology.

However, open-air centres usually lean more towards the experiential, especially if their main focus is public education and presentation, such as at Lejre. In the past, Butser was much more science oriented, and there were efforts to report data so that they could be used for archaeological research, for example a 'year book' series was developed that provided the data resulting from experiments at Butser so that the data could be synthesised by students (Bell Interview, Appendix 4).

This relates back to the discussion regarding the semantics regarding experimental and experiential archaeology within the context of museums and open-air centres. Is to integrate work being done at centres and academic practice. For example, people that work in open-air centres can develop ideas based on their experience that archaeologists can then develop into testable hypotheses. However, it may still be important to move towards a system in which experiential activities are labelled as such, but in a positive manner.

Bridging the Gap

While people acknowledge the important role that non-academics can have in experimental archaeology, there is still a perceived gap between them and academic archaeology. At present, at least two groups have attempted to bridge the gap between academic and non academic experimental archaeology: EXARC and RE-Arc (see Chapter 6). In terms of publications, both *EuroREA/EXARC Journal* and SPT have allowed for a place where non-academics and those associated with institutions such as museums and outdoor centres can present experimental and experiential work. In the 1980s, BEA helped to bridge this gap as well. However, it is hard to judge

how these venues have reached the wider archaeological public.

However, the gap between academic and non-academic archaeology may be smaller than it seems, with several instances of amateurs, craftspeople, and those interested in primitive technology etc., studying at academic institutions or becoming active in academic experimental archaeology. After all, an interest in archaeology has to come from somewhere.

Forrest (2008b) argues that experimental archaeology is linked to amateur archaeologists and, historically, has not been accepted because of this association. However, Schiffer (2009, p.8) mentions that in the 1880s, those that went to the Smithsonian to research anthropological topics did not have degrees in anthropology or archaeology; most of these people within this institutionalised setting 'made use of replicative experiments and ethnographic observations' (Schiffer 2009, p.8). It is also common for those interested in primitive experiments to go on to obtain an academic degree in archaeology or in some cases, experimental archaeology. For example, many of the international students that apply to the MA course at Exeter often already have an interest in primitive skills and crafts (Outram Interview, Appendix 6):

I think there might be a larger group of people who get into 'primitive technologies'... [that] is probably what they say, actually, more than experimental archaeology, as a hobby. Particularly if you think about knappers and flint knapping. I think there is a very small number of knappers in Britain. There are people [here] that came into it [flintknapping] from an interest in archaeology, whereas there aren't amateur knappers, who are just interested in being amateur knappers, here.

While I was also an international student from the US who applied to and attended the experimental archaeology course at Exeter, as explained in Chapter 1, my interest was first in archaeology and secondly in crafts and primitive skills. However, both Schindler and Bradley during their interviews discussed how they had been drawn to academic careers in archaeology through their interest in primitive technology:

I started foraging, well, when I was ten. It freaked my mother out. But then, I was always a big hunter and trapper with my dad, and camper, and boy scouts, and all this. I got into making bows, and once I got into making bows, I started getting into making the arrows, and then I started making arrowheads. And, through that, I got into the archaeology side of it. And once I got into the archaeology, I was already doing a lot of the primitive technology. (Schindler Interview, Appendix 5)

I started doing imitative stuff well before I started archaeological research. I started making arrowheads, flintknapping, et cetera, which is what led me to archaeology. So, basically from the very, very, very beginning of doing archaeology. I wouldn't call them experiments, [but rather] doing things, trying to figure out how things were made in the past. When I was a freshman, or sophomore, at university in Arizona, I was making pots

and doing stuff, trying to figure out stuff. In terms of real experiments – [what] I would call something that, for instance, [was] to be published.... I would say probably mid 1970s. In some work I did with George Frison, we published replicative experiments. Again, it was more [at an] experiential sort of level, ‘see if it can be done this way’ kind of stuff. I think maybe the first publication was, oh, I can't remember... but certainly 1982, but probably before that, and ever since. (Bradley Interview, Appendix 9)

There is also the case of those with academic training and an interest in experimental archaeology entering careers that deal with public education and presentation. This exchange can help to strengthen ties between non-academic institutions and academics. One such example mentioned by Bell is Steve Burrow from the St Fagans Natural History Museum, Wales, UK Jess Tipper at West Stow as archaeologists working within the realms of AOAMs and experimental/experiential archaeology. (Bell Interview, Appendix 4):

I think there has been a development of interest in experimental archaeology in the last four years or so, and that's by people who are fairly strongly academically engaged in the discipline. I think that's the difference, really. You know, it's not people who are a bit sort of marginal to academic discourse....

Burrow is also on the Board of EXARC and deals with experimental archaeology in a museum setting (EXARC n.d., Board). Many other examples abound, and often, academic archaeologists have also used experimental archaeology for public education purposes. Hurcombe noted that the Experimental Archaeology MA at Exeter was, in fact, designed with presentation and public education issues in mind as well as research. However, as the course developed over time, the emphasis shifted more towards research. Still, students continue to be interested in the more experiential aspects (Hurcombe Interview, Appendix 11):

Partly that's because the experiential archaeology, it's powerful, and some of the students that have done the course have really wanted to go on and work in public presentation areas of archaeology, but I think they can still do that because it really is in hand with everything else.

Conclusion

In my view, the importance of the work being done in these centres will only be appreciated when experimental archaeology is widely recognized as a valid and valuable subject within archaeology. This can be helped by putting it on a much more scientific basis (making sure of a clear hypothesis, logging methods and results). At present it is often put in the category of a hobby, with the image of enthusiastic eccentrics messing about at weekends, or being used as a means of entertainment. (Forrest 2008, p.38)

Forrest noted that both archaeologists and amateurs have conducted experimental and experiential

work at open-air centres such as Butser and Lejre, noting the distinction between 'professional' and 'amateur' participation that has caused experimental archaeology to remain on the periphery of mainstream archaeology: 'This dichotomy could be one of the reasons that archaeological experimentation has felt the need to take on a more scientific approach to become an accepted method of learning' (Forrest 2008b, p.62). While it is important that experimental archaeology undertaken in a non-academic setting applies the scientific method, there are other issues that affect the relationship between academic and non-academic experimental archaeologists. The issues that have been highlighted here have to do with how experimental and experiential activities are presented and whether they are written up and published to a suitable academic standard. This is also affected by the fact that the non-academics and academics are often interested in addressing different questions through experimental and experiential archaeology.

What is needed is a situation in which experience with crafts and processes is validated by applying that experience to theoretically informed archaeological research. While archaeologists interested in experiment should be encouraged to gain their own experience with primitive and craft skills, it is important that this not replace the process of establishing cooperative links with established craftspeople. It is important that experimental archaeologists be careful to embrace scientific methods, not just apply scientific tools and methods of presentation. Sidoroff, who is involved with experimental archaeology but not currently linked to an institution, noted that many of these issues are already being addressed (Sidoroff Interview, Appendix 11):

Yes, there are some positive trends I have observed. Amateur and professional Experimental Archaeology projects are far more science-based than when I began in the late 70s, including in my own work. SPT has been the leader in this effort, through 22 years of Bulletins and several earlier newsletters, to clarify the methods of scientific experimental archaeology.

Changes in archaeological theory have impacted Exp Arch in a positive way. There is a new emphasis on material culture: technological data and a focus on daily life of ordinary people. This attitude opens an avenue of respect for the researchers who know 'how to make things', who have an intimate knowledge of a particular environment, and who understand the advantages or limitations of a certain resource through their vast experience.

Bradley noted that the future of experimental archaeology may be in public education (Bradley Interview, Appendix 9). There are cases of academic archaeologists using experimental archaeology to engage the public; Schindler's experiments at Lejre are, again, an example of this. This can also extend to the education of future archaeologists at the university level. In fact, experimental archaeology can serve as a way to open up many aspects of archaeological research to future and

junior academics. This is a concept that is explored further in the following section and in Chapter 9.

Chapter Nine: Experimental Archaeology and its Place in Academic Archaeology

Introduction

The previous sections focused on issues regarding experiential archaeology and how experimental archaeology conducted by non-academics is perceived by the academic community. Here we look at how academic experimental archaeologists view the place of experimental and experiential archaeology in academia. Quotations from experimental archaeologists indicate a story of exclusion
Table 32:

'...its potential has been scarcely touched.' (Ashbee et al. 1963, p.12)	'...general interest in such work and its theoretical implications seems to have flagged in the last decade.' (Whittaker 1996, p.51)
'Even where probable tools are found on site, there is often little effort made to test their efficacy and wear patterns by experiment or to compare marks on rocks with tool edges.' (Whittaker, Koeman, & Taylor, 2000, p. 156)	'Our awareness that we are a body of scholars with important information to communicate has not impressed itself sufficiently on our colleagues,...' (Johnston et al. 1989, p.2)
'Part of the reason for this is the lack of understanding by the wider archaeological community of what Experimental Archaeology actually is, what it can be used for, and why it is so important in the balance between science and theory.' (Millson 2011, p.3)	
'What we might call mainstream archaeology, the excavations and analysis of sites, and the study of material culture, do not yet include experiments as a normal part of archaeological investigation.' (Coles 1997 p.310)	'Yet the scientific value of craft and performance remains insufficiently recognized within the bastions of academic archaeology, and as a result, they do not yet receive the credit they deserve as ways of expanding archaeological knowledge.' (University of Aberdeen 2009)

Table 32: A story of exclusion and lack of interest

The pattern that emerges from these quotations shows that experimental archaeology is rarely integrated into wider academic or professional practice. There is also a feeling of rejection on the part of the scholars who do employ experimental archaeology—particularly in the quotation from BEA (Johnston et al. 1989).

Not only has this been addressed in the literature, but it is a topic for conferences as well. In terms of conferences, perhaps because the issues are much more concerned with the presentation of new ideas and ongoing research, there is sometimes a focus on the relationship between experimental

and experiential and how this affects experimental archaeology's acceptance by the academic community. Some have tried to exclude experiential activity whilst others have attempted to include and validate it. The latter includes the Egyptology conference held at Swansea (see Chapter 6) as well as the EAC 2009 (also quoted in Table 32).

Comments in the literature and in person or at conferences concerning whether or not experimental archaeology is considered an accepted method are prolific, and this was a topic that was broached during one-to-one interviews. When asked what he thought about the current state of experimental archaeology in relation to comments made in writing by both John Coles (such as those seen above Table 32), and in the introductory chapter to the recent publication on the *Experimental Earthworks Project* Bell replied:

But, I mean, I certainly agree with that. I think it's immature, and not really well thought out, or clearly situated in relation to the rest of the subject. I don't think it's moved on terribly fast since John Coles wrote those two books in some ways. At that point, it was probably seen as pretty mainstream really. (Bell Interview, Appendix 4)

What does it mean to be 'insufficiently recognized'? Is experimental archaeology, and those that practise it, marginalized? Here we will look at how people become aware of experimental archaeology, some criticisms of it from outside of the experimental archaeology community and, finally, how it is integrated into academic research.

Awareness

There have been frequent comments from those that employ experimental archaeology, or who are close to the method, that it is often left out of academic literature. Saraydar noted the infrequent mention of experimental archaeology in the literature on method and theory, commenting that:

Although experiments are not the primary means of advancing our knowledge of the past, many have been performed over the last 120 or so years, and they have provided and continue to provide a very useful and unique means of supplementing knowledge obtained through survey and excavation. On this basis alone, they are worthy of greater prominence in the professional literature than they have been granted to date. (Saraydar 2008, p.2)

Inspired by the interview with Martin Bell, in which he mentioned how experimental archaeology was presented in major archaeological text books, a survey was conducted of the newest edition of

Renfrew and Bahn's *Archaeology* (2008). This also relates to the quotation above by Saraydar. Replicative experimentation was mentioned over 50 times—although most mentions were in the same section. Still a number of different topics are discussed in reference to experimental archaeology (see Table 26, page 137). *Archaeology: an introduction* also has a short section on experimental archaeology (Greene & Moore 2010). However, this in no way means that there is an overall awareness in experimental archaeology, despite its mention in basic textbooks. In order to evaluate experimental archaeology's role in academic research, it is important to establish how people become aware of experimental archaeology. As mentioned above, undergraduate students may come across it in textbooks and introductory classes. However, it may be mentioned only briefly, and it is only at certain institutions where students receive any sort of in-depth instructions. Otherwise, many individuals are only exposed to a brief introduction in initial archaeology courses and modules, often in the 'context of discussions on the use of analogy in the interpretation of the archaeological record' (Saraydar 2008, p.xi).

This is not always the case: for example, UCL archaeology undergraduates undergo a more in-depth introduction to experiential and experimental archaeology (see following section on education). Another introduction is through an interest in primitive skills and crafts, as discussed in Chapters 7 and 8. Several of the individuals interviewed described how they were introduced to, and became interested in, experimental archaeology.

For example, while Outram was not aware of experimental archaeology being conducted at Durham during his time there, it was mentioned in the literature to which he was exposed and in modules. Taphonomic experiments and ethnoarchaeological experiments arose when he was conducting the literature review for his thesis, although there was also an early experience with experiential archaeology while working with the local archaeological society (Outram Interview, Appendix 6). Ultimately, Outram went on to employ experimentation in his PhD thesis in order to create data to address the questions he was interested in. While Hurcombe also began using experimental archaeology properly during her PhD research, similarly, she had had some interaction with it, primarily in the form of ethnoarchaeology and experiential archaeology, during her undergraduate phase (Hurcombe Interview, Appendix 11).

Like Outram, Eren was not overly aware of researchers using experimental archaeology in research during his undergraduate time at Harvard. However, he was encouraged to gain experience in flintknapping from his graduate advisor, Ofer Bar-Yosef:

He saw, I think, a niche. I think that he saw that there weren't many young flintknappers, so he really encouraged me to do it. (Eren Interview, Appendix 8)

It does seem that many potential archaeologists become acquainted with experimental archaeology because they are already interested in primitive technology and craft skills or because there is a member of the department or a visiting scholar who has an established interest. This has left those interested in the method to explore and learn about its application on their own. However, there are a growing number of established courses in experimental archaeology available at both the undergraduate and masters level. As both Bell and Schindler have noted, there has been an increase in the interest in experimental archaeology in the last several years. This interest is represented by the establishment of conferences such as RE-Arc and EAC, as well as the increasing number of experimental archaeology courses and publications that either focus on or feature experimental archaeology.

Integration

How people become interested in experimental archaeology is partially linked to how well integrated it is into academic archaeology. Likewise, it is this integration that is key to understanding experimental archaeology's roles in academic archaeology. Here we will look at several key fields of academic archaeology and how experimental archaeology is integrated into practice.

Education

There is a history of experimental archaeology being taught at the university level. Over the last half century, the use of experimental archaeology has continued to proliferate. The way potential archaeologists are educated, and on what topics, can shed light on what topics and methods are seen as normal within an archaeological discipline. The majority of information given to undergraduates and masters students usually falls within the archaeological canon. In the United States, Ascher also discussed experimental archaeology with his students, inspiring some to take up a long-term interest in archaeology during the 1960s (Saraydar 2008, p.xi), and Errett Callahan involved students from Virginia Commonwealth University in his Living Archaeology project, The Old Rag Project, which would end up lasting several decades in one form or another (Callahan 2008). In the UK, John Coles taught on the subject at Cambridge, and as of 1985, it had been taught at Cambridge for 20

years (Coles 1985, p.11). After Coles's retirement, experimental archaeology continued to be taught on two levels. It was integrated into the second-year archaeological methods course and it was offered as a 'Special Subject' in the final year (Van der Leeuw 1989, p.9):

The topics covered include the history of experimental archaeology, its present role, and its relationship with ethnography; the changing aims and directions of experimental research in its many forms; practical work; and visits to experimental centres. In view of the small numbers on this specialised course, the course material is suited to the students' interests through a mixture of tutorials and lectures by staff and visiting specialists rather than a formal lecture course. (van der Leeuw 1989, p.9)

Some other examples include the course at the Institute of Archaeology, University College London (UCL), which has been going on since the 1980s. Since 1982, archaeology first year students at UCL have taken part in the Experimental Archaeology Course started by Peter Drewett (UCL Institute of Archaeology n.d.). Perhaps reflecting the importance of experimentation and the understanding of craft skill, this course is a requirement for all first-year undergraduates of the Institute of Archaeology:

Experimental activities include: assessing what factors influence the survival of charred seeds; studying the choice of bone working techniques in the production of Egyptian bone 'labels'; studying the properties of tree bark (bast) in textile production; using deer butchery to reconsider the evidence of hunting and resource use at Boxgrove; and a project developed as a result of the 2007 excavations at West Dean (see below) to investigating potential activities leading to the production of fire-cracked flint and its role in British Bronze Age pottery. (UCL Institute of Archaeology n.d.)

It has also been the focus of an entire Master of Arts degree at the University of Exeter since 2000, as well as more recently at Sheffield. Such courses can have an impact on experimental archaeology, and as Bell says in his interview, these courses have an audience of young archaeologists developing who view experimental archaeology as an important method that they want to study in depth (Bell Interview, Appendix 4).

While based in the UK, the Master's programme at the University of Exeter attracts many international students, many of whom are from the United States. One of the principle lecturers is Prof Bruce Bradley, an American flintknapper, who joined the Department at Exeter in 2004 (Outram 2004, p.163-4). The course at Exeter aims to address the issue of there not being a place for formal training for those interested in working with experimental archaeology, both in the sphere of public education and in academic research:

When we set up this programme, we were very conscious that experimental archaeology forms an exceptionally important part of both archaeological research and its presentations to the public, yet the formal provision of education in the field was very

much lacking. The number of experimental archaeology centres of various kinds has vastly increased in recent years; this is a testament to the popularity of practically based activities in communicating archaeology to the public and within education. Those working in traditional museums have had the opportunity to undertake specialist post-graduate courses for many years, but no equivalent seemed to be available for those who work, or wish to work, in archaeological open air and experimental centres. Furthermore, we also noted that actualistic experiments are still relatively underplayed within the formal research literature. Why is this? Sadly, it appears that there is still often something of a gulf between those with practical ability and skills in primitive technologies and hard scientists and academics. This gulf needs to be bridged so that [the] archaeological research world can benefit from the wealth of practical knowledge that exists out there. (Outram 2004, p.164)

From 2007 to 2009, the project *Developing Experimental Approaches in Archaeology* was undertaken by Reading University and involved students from the University (Bell 2010, p.33). The project was funded through the SHES 2007 Research Project Competition with the following focus:

...[the] importance of multi-disciplinary, controlled, and replicable experimental research as a key component of human and environmental sciences through its contributions to the understanding of biological, chemical and physical processes, and the formation of material/sedimentary records. Within its initial phase, the project undertook a pilot research to generate preliminary data sets intended to support the future development of long-term projects appropriate to the timescales required by robust experimental research. (University of Reading n.d.)

As part of the project, workshops were held at Butser Ancient Farm, UK, and at West Stow, an experimental Anglo-Saxon village, also in the UK (Bell 2010, p.33). Another outcome was a *Guide to Best Practice*:

These notes are designed to guide University of Reading undergraduate and postgraduate (masters and doctoral research) Archaeology students who are considering incorporating archaeological experiments into either dissertations (undergraduate or masters) or doctoral theses (PhD). The notes highlight the many benefits of experimental approaches and key issues in the design and implementation of archaeological experiments. These include the formulating of scientific research questions, designing and implementing appropriate experimental procedures for testing these questions, identifying the necessary resources (including personnel, facilities, equipment, consumables, and funding), risk assessment and health & safety issues, techniques for the effective analysis of experimental data-sets, and potential pitfalls. (Bell et al. 2009, p.1)

While not strictly limited to traditional university courses, this project at Reading aimed to address the issue of integrating experimental archaeology into academic research and education (Bell Interview, Appendix 4):

The reason I'm quite keen to do that is that I think that experimental archaeology is a good way of making scientific approaches accessible to undergraduates, most of whom,

in our case, come from a mainly arts background. [They] arrive a bit fearful of science, and one of the questions they often ask when they're being interviewed or come to open days is, 'How much science is there?' and the implicit thing is, 'Am I going to be able to cope?'

Well, in my experience, anybody who is able and interested in archaeology can cope with the science we do. But I think they have to be led into it, in a way that [they] find relevant to the things that they're already interested in from a social perspective. So, things like the use of space on an archaeology site, they can relate to relatively easily. They can see how an experimental approach [aids in] knowing how an Iron Age hut floor is being used over the last twenty years. You can look at the sediments in it, from a geo-chemical or micromorphological point of view, and see whether or not the sort of traces you're finding on that experimental site are similar to those that occur archeologically and whether they help you to interpret the archaeological traces. So, as a teaching tool, I think it's very useful.

As has been mentioned, experimental archaeology is also being taught at the university level in the United States, although I am not aware of there being an MA in experimental archaeology there. Schindler noted that he teaches experimental archaeology at Washington College, and he was also aware of teaching taking place at other US academic institutions (Schindler Interview, Appendix 5). For example, Peter Schmidt teaches an experimental archaeology module at the University of Florida (Schmidt n.d.). Since 1984, Michael Schiffer has taught a course on experimental archaeology (Schiffer 2009, p.21). In addition Schiffer and James Skibo began the Primitive Technology Lab, at the University of Arizona during the mid-1980s (Schiffer n.d.)

Initially, these examples of institutions that have experimental archaeology modules and courses may seem impressive, but in the wider context of the number of universities in the UK and the US, the offers are limited. As discussed in the last section, something that might help this issue is closer contact with open-air museums and experimental centres. While Table 31 supplies examples of individuals working within this context at Lejre, as Bell notes in his interview, more can be done when it comes to publishing work done at experimental archaeology centres and AOAMs (Bell Interview, Appendix 4).

Schindler has also stated that the establishment of an experimental centre would be beneficial to experimental archaeology in the US. Another solution is for universities that already have a relatively strong experimental archaeology presence to establish laboratories such as the one at Arizona and make them more visible, perhaps open to visiting scholars. However, this requires funding and institutional support. To make such developments happen, experimental archaeologists have to continue to publish their work and address interesting archaeological questions.

It is important that so few institutions have an experimental archaeology module at the undergraduate or postgraduate level. Eren (2009) elucidated some of the reasons as to why experimental archaeology can and should be an important part of archaeological education. Experimental archaeology—as well as experiential learning with material culture production—can encourage students to take a deeper interest in learning the 'what' and 'why' of material culture. It also makes it more practical for students to design, develop and carry out their own independent research projects—at much less cost, and possibly in less time than using fieldwork. Such courses can also aid in the creation of experimental datasets. Additionally, experimental archaeology can open more avenues to employment for students that are interested in careers in public presentation and education.

Conferences

The increase in the number of conferences on experimental archaeology over the past several years is one example given (see Bell, Appendix 4) of the increasing interest in experimental archaeology. For decades, there has been, and still is, an international interest in experimental archaeology at the conference level, particularly in Europe. In the US and the UK, serial conferences on the topic are slightly more recent. Here we will first discuss conferences that focus specifically on experimental archaeology, and then we will look at how the method has been addressed at larger, more general conferences.

Since 2006, the EAC has taken place at different locations in the UK, usually at an academic institution. Several of the conferences, such as the one held in 2008 at Edinburgh and the one in 2009 in Aberdeen, also had a portion where attendees visited an open-air museum. This series of conferences has been referred to as an example of the 'new lease on life' that experimental archaeology has developed over the past several years (Bell Interview, Appendix 4). While such conferences serve as a place for experimental archaeologists to gather and present their work to one another, it is debatable whether or not they open the method to be presented to other academics not as interested in the field. In 2008 according to the participant list sixty-eight people attended the conference, a number of whom were from academic institutions (Participants' associated institutions, Experimental Archaeology Conference 2008, page 120). The numbers of participants dropped slightly in 2009 (Participants' associated institutions, Experimental Archaeology Conference 2009, page 123). The UK institutions represented at each of the two conferences observed are listed in Table 33. Interestingly, UCL, the first university to host the conference, is not

represented, and neither are Reading or Sheffield – both universities with an expressed interest in experimental archaeology. However, people from the University of Exeter, University of Edinburgh, University of Aberdeen, and University of Glasgow attended both.

UK Academic Institutions Represented at the Experimental Archaeology Conference 2008		UK Academic Institutions Represented at Experimental Archaeology Conference 2009	
University of Exeter	Cranfield University	University of Exeter	University of Sheffield
City College Plymouth	University of Stirling	University of York	Durham University
University of Edinburgh	University of Central Lancashire	University of Edinburgh	Cardiff University
University of Aberdeen	University of Bradford	University of Aberdeen	University of Manchester
University of Glasgow		University of Glasgow	

Table 33: Academic institutions represented at the Experimental Archaeology Conferences 2008 and 2009

This second conference shows a slight increase in the number of established universities from one year to another. While lists of attendees for the subsequent Experimental Archaeology Conferences in the UK are not available, out of the six (or seven) that have taken place, only the one that took place at Exeter in 2007 has actually been published thus far.

A similar, serial conference has been held in the US: the *Reconstructive and Experimental Archaeology Conference* (RE-Arc). Starting in 2010, there have been two, with a third one planned for October 2012. The conferences have been held each year at the Schiele Museum in Gastonia, NC, US. The aim of the conference is as follows:

...to promote and stimulate interest in reconstructive and experimental archaeology; to support and facilitate an active and open exchange of information between all related groups; to serve as a bond among those interested in this and related subjects; to publish and to encourage publication; to advocate and to aid in the conservation and

development of related data; and to encourage an appreciation, high standards, development and support for the scientific application of reconstructive and experimental archaeological research. (Butler 2012)

Unlike the EAC, RE-Arc has been held at a museum rather than primarily at academic research institutions. However, it does have ties to academic researchers, such as Bill Schindler (Schindler Interview, Appendix 5).

There are several differences between the two sets of conferences, particularly in terms of organization. Institutions volunteer each year to hold the EAC, but there is no formal link between the different annual conferences. However, recently a website and blog were developed to collect and present information on this set of conferences: <http://experimentalarchaeologyuk.wordpress.com/>. RE-Arc, on the other hand, has an established board as well as an established mission to bridge the gap between academics and non-academics.

There have at times been issues with experimental archaeology being represented at larger archaeological conferences. For example, the 1986 World Archaeology Conference (WAC) held at the University of Southampton, UK, lacked a session on experimental archaeology as reported by the editors of the BEA (Johnston et al. 1987, p.10):

And this, in spite of repeated offers from your Editor to organize a section; despite the fact that the Congress took place in the same University that produces this Bulletin; and despite the claim by the organisers that they enjoyed the official support of the Research Centre at Lejre (who seemed mystified by the whole business when we checked).

While there was a presence of the journal at the conference, there was a definite feel from the editorial that the exclusion of experimental archaeology was specific in nature (Johnston et al. 1987, p.10):

There are, in fact, two different and contrasting interpretations of what appears at first sight to be a snub. One is that the organisers, in their obsessive concern with the peripheral and barely relevant, must have considered experimental work so central that it did not need to be included; the other—and this is the reason implied at the time—must be that it is not considered a proper subject for a conference on archaeology.

For the next WAC, held in 1990, there did, however, seem to be a plan to include experimental archaeology to at least a minor degree (Johnston et al. 1988, p. 9). This raised the question of whether experimental archaeology is now represented well at the level of wider, international conferences. As shown by the review of conferences such as the EAAs and SAAs in Chapter 5, there is a strong presence of experimental archaeology. More importantly, experimental archaeology

is integrated into sessions on other topics. This means the experimental archaeology research is presented to a more diverse audience than would be present at a conference specifically on experimental archaeology.

While this was the case at the sessions at the EAAs and the SAAs (see Chapter 6), experimental archaeology did not seem to be as integrated into the research at the TAG conferences attended. To assess this impression, a search through the digital abstract book for the 2009 TAG at Bristol for paper abstracts containing the word 'experiment' was conducted—a similar method to that used to find papers that included experimental methods at the much larger SAA conference held in the US (Table from chapter 6). Table 34 includes the results of this search, which excluded papers from the session discussed in Chapter 6: *Experimentation in archaeology: combining practical and philosophical methods in the pursuit of past culture*. The session *Abandoning 'the curse of the mummy': new theoretical approaches and methodologies in Egyptology* (TAG 2009, p.5) mentions experimental methods, but it is not clear whether any of the papers presented at the session addressed this issue.

The results of the search appear to reaffirm my initial impression as a participant observer at the conference. While the session specific to experimental archaeology had a good number of papers and was well-attended, experimental archaeology was less well integrated into other aspects of the conference. It may not be fair to draw a strict comparison between the number of experimental archaeology presentations at the SAAs and the number at TAG, particularly because of the size difference in the two conferences. However, the lack of experimental archaeology at TAG may indicate that there is less emphasis on the theoretical development of the method. Once more, this brings us back to the previous quotation by Jeffra, where she claims that conferences on experimental archaeology are more interested in establishing it as a normalized practice than in developing the method in theoretical terms.

Author	Session	Paper
Hugo Lamdin-Whymark,	Dwelling, lithic scatters and landscape	Lithic scatters, rock art and ritual: an example from Torbhlaren, near Kilmartin, Scotland
Rupert Till	The affective properties of architecture	Experimental sound archaeology: the sonic analysis and reconstruction of Stonehenge as a methodology for understanding the experience of acoustics and music in prehistoric ritual culture
Antoni Martín i Oliveras and Leticia Sierra Díaz	The ethics of heritage tourism, archaeology and identity	Cella Vinaria Archaeological Park (Teià-Maresme-Barcelona): Cultural Heritage Tourism Project VS an applied investigation project. The importance of effective communication.

Table 34: Paper abstracts that mention experimental archaeology, Theoretical Archaeology Group Conference 2009

Experimental archaeology is integrated into larger conferences such as the SAAs and EAAs, although experimental archaeologists could do more work in presenting the theory-based aspects and contributions of the methodology at medium-sized conferences such as TAG. Conferences specifically oriented towards experimental archaeology are more likely to draw attendants that are already interested in the methodology. While these conferences serve as a place for experimental archaeologists to present and debate with one another, they should not shy away from presenting their work in other arenas. The presentation of quality experimental (and perhaps experiential) research at more general conferences means that the method is presented to a larger audience; this may help in alleviating some of the feelings of exclusion from academic archaeology.

Literature

EXARC and, potentially, RE-Arc also aim to address issues regarding the place of experimental archaeology in archaeological literature. Issues of quality concerning the publication of experimental archaeology research have existed since the first explicit literature on the subject, and over the past five decades, various authors have given their input as to how experiments should be conducted and presented (for example, Ascher 1961, Coles 1979, Outram 2005, Saraydar 2008). However, the issue of experiments not being published goes back to the 1800s, when pioneers in experimental and experiential work such as Cushing took prolific notes, but published little (Schiffer 2009, p.14). The perceived lack of proper, quality publications of experimental

archaeology was one of the factors that led to the creation of the BEA in the 1980s. Lack of publication leads to issues such as duplication of research, lack of coordination, and fragmentation of research (Johnston et al. 1980, p.1; 1984, p.1):

Five years ago it was clear that there were too many archaeologists, in different places, experimenting individually and unaware of each others' research.

While such topic-specific areas for publication serve a purpose, the assessment of conferences can be applied to presenting experimental archaeology in academic literature: while it is a positive step that volumes on experimental archaeology are published, in terms of integration, it is more pressing that experimental archaeology research be published where it will have a wider circulation.

It has been commented that it is difficult to get experimental archaeology published in places such as peer-reviewed journals (for example, see Sidoroff Interview, Appendix 11). Individual experiences with submitting articles containing experimental archaeology to peer-reviewed journals need to be collected and analysed. The journal survey conducted (Chapter 6) reflects the final outcome of this process, however, and shows that experimental archaeology is being published, if not on a mass scale. Additionally, over the past several years, there has been a perceptible increase in the amount being published, just as there has been with the presence of experimental archaeology at conferences. When asked about this trend, Schindler placed it within a wider historical trend (Schindler Interview, Appendix 5):

So, there in the '70s, things were going pretty well. Then in the '80s, it kind of dropped off, and one of the big reasons it dropped off is because some of the experiments and some of the writings of them were very, very poor. It dropped off around the '80s. In the '90s, it started coming back a little, and I really think in the past five years more than ever. If you go to conferences like the SAA's, and start looking in the journals, there are many more experiments. A lot of them are graduate students that are pairing with their mentors....

While Schindler does not assign a specific reason to the drop in experimental archaeology publications during the 1980s, there have been claims that it can be associated with the rise of post-processualism. The results of the survey of experimental archaeology journal articles also reflect this trend of an increase in the number of such articles being published in *JAS*, although there is no real trend in terms of numbers for *Antiquity* and *American Antiquity* (see Figure 2, page 51). However, in terms of the percentage of articles containing experimental archaeology, the numbers are strong over the last decade (Figure 3, page 52).

The data from the journal survey discussed in Chapter 6 shows that, on the whole, experimental

archaeology is regularly published in the three journals surveyed, although more so in *JAS* than in *Antiquity* or *American Antiquity*. This is not surprising considering the main focus of that journal is on archaeological science, a category into which experimental archaeology can no doubt fall. While experimental archaeology articles may be published *regularly*, they are not necessarily published at a high volume. Only two interviewees openly discussed issues regarding the publishing process: Sidoroff and Eren. Sidoroff's experience is mentioned; he indicated that it can be difficult to publish experimental archaeology in peer-reviewed journals. Eren, who has published several articles that include experimentation as part of the research, had not noted any increased hardship when it comes to publishing such articles through the peer-review process (Eren Interview, Appendix 8):

The peer reviews can range from just really excellent, they really are enthusiastic, to 'We don't believe this', even though we present the empirical data. I mean, it's like anything, really. You can have a great paper just published on real archaeological material, prehistoric material, and you get a range of peer reviews saying, 'We hate this' or 'we love this'. It's the same with experimental archaeology.

...

A couple of my papers have been cited upwards of twenty times already, even though they've only been out for a short time. That shows that at least they're making [an] impact. Even though they haven't been out for very long, they have twenty plus citations for single papers. It's not bad for just a couple of years. So, I'm not really concerned whether or not the reactions are positive or negative. I'm more concerned with whether or not it's making a contribution. Even if we get something wrong, in our experiments or our experiment doesn't exactly test what we thought it did, and someone proves us wrong, well, that's great, that's progress. Someone is building off our work, and that's the way it should be. So, again, I don't really care [if] people like or hate my stuff. I'm more concerned with progressing the scientific nature of archaeology and making an impact.

In addition, other issues have been raised concerning the amount of experimental archaeology being published. It has already mentioned that, while volumes on experimental archaeology can be helpful to those interested in the method, it is also important to publish in other areas as well. Two other issues are the quality of publication and whether experimental archaeologists are publishing their results as all.

Quality

The journal survey has shown that there are a steady number of research projects being published that employ experimental archaeology, and there are several books and journal volumes on experimental archaeology. Both can help in integrating and supporting the development of experimental archaeology in their own way. However, this is only if the level of quality is appropriate. This is an issue that has been raised multiple times by experimental archaeologists, and

it relates back to how experimental archaeology is defined and presented:

There's more experiments being published than there were before certainly. I think that there are two issues that don't seem to be such a big problem in Europe. Anytime somebody's messing with something in the US, they're calling it an experiment. I think they're overusing the term.... I think the other issue is that, as a result, there's a lot of stuff getting published under this umbrella term 'experimental archaeology', and I think that could end up backfiring. You're getting these people that know how to write. These people that are essentially phenomenal archaeologists, that don't have an experimental or primitive technology background, that are getting things published because they know how to write, and because of the 'good old boys club' and through the peer-review process, getting into these great journals. The results are erroneous, and they're getting... [published]. I don't see that being a problem here in Europe. On the other side, I think there's stuff getting published here in Europe in places like *EuroREA*, and this is in a good way, that are not necessarily purely academic, or purely scientific, but they're written well, and the results are sound, and it's good that that information is getting out. So, yeah, I wish there was one place in the US. (Schindler Interview, Appendix 5).

The issue of presenting experimental archaeology has come up in print as well. Again, one of the main issues is that researchers lack experience: either non-academics who seek to publish work on experimental archaeology lack the experience in writing peer-reviewed papers, or archaeologists lack experience with the primitive technology or archaeological process being tested. Additionally, there are the cases where individuals publish other forms of experiential archaeology, but label it as experimental:

As an academic archaeologist engaged in experimental archaeology, I frequently find myself frustrated by three different types of archaeological publication. The first are articles written by academic colleagues without an experimental or scientific background, who, despite lacking technical or practical knowledge, still insist upon speculating on issues of primitive technology. The second are archaeological scientists who know the technicalities well, but not necessarily the practicalities, and tend to come to archaeologically naïve interpretations. The third group are those who are involved in experimental work, reconstructions and primitive technology and have a vast practical working knowledge that could be a great value to archaeologists and scientists. However, I think most would recognize some of the problems I have outlined. (Outram 2005, p.107-8)

Outram also discussed the issues that affect the publishing process of experimental archaeology elsewhere: 'lack of clear aims', 'insufficient detail on materials and methods', 'compromises over authentic materials', 'inappropriate parameters', and 'lack of academic context' (Outram 2008, pp.4-5). In an interview, Outram was asked to expand on this issue of there being a lack of training in experimental archaeology, and the motivation for writing about standards in experimental archaeological practice (Outram Interview, Appendix 6):

Mine wasn't the only paper written at that time. There was a series of papers that we were trying to improve standards and provide some advice [with]. I don't know if it had

any effect. Most certainly, in academic circles, because archaeology has quite a breadth of people with different specialties and different backgrounds, there's some elements that may get into experimental archaeology that just don't understand the scientific method very well.

Paardekooper, one of the co-organisers of the EAC at Exeter in 2007 and Director of EXARC, discussed several important aspects of furthering experimental archaeology in terms of publication. He commented on the importance of referencing other experiments in research; this is a step that may seem self explanatory, but the idea of 'reinventing the wheel' is often cited as an issue within experimental archaeology (Paardekooper 2008; 2013). To alleviate this problem, EXARC has established an online bibliography, which contains references to hundreds of papers on, or including, experimental archaeology.⁸

Another issue is that, often, experimental archaeology is just not published. This probably sounds familiar to many archaeologists, as the issue of the problems in publishing fieldwork is also endemic in the discipline. As mentioned previously, there are groups that are trying to address these issues by supplying places for experimental and experiential work to be published and by drawing together academics and non-academics. At the point of the interview with Schindler, RE-Arc was in the process of compiling a lists of primitive technologists so that academic archaeologists would be able to contact people with hands-on knowledge of materials and processes relevant to archaeological research. (Schindler Interview, Appendix 5).

Despite these issues, there is evidence here that experimental archaeology is accepted as a method, based almost purely on its presentation and publication in a wide variety of places. This does not indicate whether the experimentation being presented is of a high standard, but it does show that it is more accepted than other 'vilified' methodologies that have been used in archaeology, such as, for example, dousing for archaeological sites. It is also important to note that other archaeological methodologies, such as ethnoarchaeology (Skibo 2009), are often classified by practitioners as being on the fringe of mainstream research.

Much of the criticism of experimental archaeology comes from those that also conduct experimental archaeology, not those from outside of the methodology. This criticism usually applies to issues of quality and often relates back to whether what is being practised is actually

⁸ A large portion of the journal references gathered in the journal survey portion of this research will be to this online bibliography as well.

experimental or is more experiential. In some ways, this is a positive step that shows that there are practitioners who actively encourage a higher quality of experimental and experiential archaeology, whether that encouragement be through publishing recommendations on practice, creating forums where archaeologists and craft specialists can cooperate, or educating future archaeologists and public education workers.

Critiques of Experimental Archaeology

As stated above, most criticism of experimental archaeology comes from within. During research, only a few published examples of criticisms of experimental archaeology were from non-practitioners. The most outright example has already been discussed: Blake's critique of the work published in *Antiquity* by Ryder (Chapter 3). Initially, a review of the publication on early iron production appears to be a critique of how experimental archaeology is produced (Slater 1998, pp.959–960):

Lyngstrom says in another context in this volume, 'The experiments must not—as most of them do today—just repeat them—selves and those of others and produce a mass of unpublished data.'

This is a mantra that has been repeated through the decades, and it is such criticism continually levelled at experimental archaeology that has caused many potential readers to turn away from publications seemingly similar to this one, where specialists appear to speak only to a few other specialists and don't try to make their work relevant to others.

However, the author of the review also has a history of dealing with and conducting experimental archaeology as well (Barker 2002, p.xxvii). Perhaps differently from the other published critiques, this one was published in a journal or volume that does not cater specifically for experimental archaeology. Another, very mild, criticism of experimental archaeology can be found in Gosselain's research into pottery production (Gosselain 1992, p.244):

Without denying the importance of the experimental approach, I prefer to use ethnoarchaeological data because they reflect a traditional skill which might be expected to be much closer to prehistoric reality than any experimental approximation.

Whether Gosselain is correct in this assertion is debatable; however, this statement is more of a justification of choosing one method over another than a full-out criticism or condemnation of experimental archaeology.

Cordula Hansen cited a negative reference to actualistic experimental archaeology in *Archaeology*:

an introduction (Greene 1983, p.157 in C. Hansen 2008, p.69), although this does not appear to be present in the newer edition. A survey of the fifth edition of *Archaeology* reveals several mentions of experimental archaeology in reference to its place within archaeological science (Greene & Moore 2010, Chapter 5). The discussion is broad but covers basic topics (artefact analysis, reconstruction, experimental centres, etc.) and also discussed the limitations of the method. On the whole, there seems to be no heavy-handed criticism in this new edition.

As this and the survey of Renfrew and Bahn (Chapter 6, Table 26, page 137) show, experimental archaeology is referenced in such general volumes, and the journal survey illustrates that it is also being published regularly. Despite this established, if small presence, there is not much being said about experimental archaeology in the general terms of archaeological research, negatively or positively. Most of the analysis and criticisms of the method come from those that use it in their own research. This might be a form of validation for the number of experimental archaeologists that believe that the method is not well thought of by other archaeologists.

The results of the journal survey might address this issue. The articles listed in the survey (Appendices 12, 13, and 14) were identified firstly with a digital search for the word 'experiment', and secondly by me reading through them to identify any actualistic nature of the experiment used. The majority of the articles did not contain the actual phrase 'experimental archaeology', and even fewer used the term as a keyword. There are at least two possible causes for this: the authors did not label their articles as being 'experimental archaeology' because they were afraid the research would be maligned by such an association, or the authors simply did not view such a label as necessary.

The first cause would further support the idea in the status quo that experimental archaeology is difficult to publish. The second indicates that experimental archaeology is a method that is integrated into archaeological research by mainstream archaeologists that do not bother to acknowledge themselves as experimental archaeologists. This further lends itself to support the assertion that experimental archaeology is a *method*, not a sub-discipline. Such integration is low-key and would not be picked up on by experimental archaeologists searching specifically for actualistic experiments.

Still, this concern within the community as to whether other archaeologists are actually aware of what experimental archaeology is affects the development and presentation of experimental archaeology. Cunningham, Heeb, and Paardekooper addressed this issue, which arose at the EAC held in Exeter in 2007:

What became clear during the conference is that the term 'experimental archaeology' encompasses a great variety of practical approaches to archaeology. These include controlled experiments, the phenomenology of objects and the experience of taskscapes. This diversity is probably one of the reasons why experimental archaeologists sometimes feel that they are not being taken seriously by mainstream academic archaeology, which seemed to be a recurring issue in the discussion. (Cunningham et al. 2008, p.vii)

This variety of experimental archaeology further indicates that the method may be used much more than is acknowledged. Experiential archaeology may also be a tool that is present even more intrinsically than explicitly. Another issue that has been raised in the past is that there is a lack of understanding of the theoretical founding of experimental archaeology:

The imitative experiment has failed to receive general acceptance because the evaluation of the procedures and results of such experiments are ambiguous. The ambiguity can be traced in part to the fact that the locus of the imitative experiment, and the theory and logic involved in executing imitative experiments are unclear. (Ascher 1961 p.794)

Tringham (1978, p.171) argued that experiments are often ignored because of a lack of a strong theoretical base and applicability in testing archaeological hypotheses and because researchers do not pay proper attention to the scientific procedure. These are issues that, as we have seen, still arise when people talk about experimental archaeology. However, the critical debate within the subject is, perhaps, the best way to continue to address these issues.

Experimental Archaeology and Archaeological Theory

The issues of variety of application, quality and theoretical basis (or lack thereof) do not affect only experimental archaeology. Archaeology itself is a highly interdisciplinary hodgepodge of a subject. It draws from a variety of subjects in the science and humanities in terms of method and theory to analyse something as diverse as human material culture. Because experimental and experiential methods are not always explicitly labelled as such, it can be difficult to see where experimental archaeology stands in regards to different strains of archaeological theory.

Experimental Archaeology: an Archaeological Science?

Experimental archaeology, historically speaking, is most closely linked to processualist

archaeologists and viewed as a part of archaeological science, itself often held as an ideal when it comes to experimental archaeology (Forrest 2008a, p.38). It is the application of the scientific method that most easily differentiates experimental archaeology from other forms of experiential archaeology. When a scientific basis is lacking in something presented as experimental archaeology, issues of understanding and quality arise:

I think that perceptions of the validity and usefulness of archaeological experimentation are affected by a lack of a scientific approach. People often see archaeological experiments as a bit of fun, rather than something that is useful to archaeological research. (Respondent 10, Question 12)

Archaeology, while employing scientific technologies, the development of hypotheses and other aspects of a scientific approach, lacks the ability in many aspects to be a replicative, controlled science. Experimental archaeology, when conducted employing the scientific method, can fill this gap. Archaeologists sometimes lack an understanding of what is a scientific approach; teaching experimental archaeology can be a way to introduce such methods, topics and theories (see Bell Interview, Appendix 4; Outram Interview, Appendix 6).

Experimental archaeology is also not the only form of archaeological experiment that can be poorly practised or understood. Poor laboratory science within archaeology can also be practised for a variety of reasons, but most often because archaeology departments will lack the wrong lab equipment. The best solution to this issue would be for archaeologists to collaborate with relevant scientists (Outram Interview, Appendix 6). This lack of understanding or scientific principles and/or ability to apply scientific techniques in archaeology can also relate to perceptions that people have of science and scientific data and archaeology and archaeological data. Experimental archaeology is at odds with our views of archaeologists as passively receiving and reading their data, but it is also at odds with how we view experimental sciences (Saraydar 2008). Scientists, at least laboratory ones, are rarely thought of as dealing with raw materials:

It is clear that measurement instruments are the products of human effort, as are articles, books, and the graphs and print-outs produced. But the source materials with which scientists work are also preconstructed 'Raw' materials which enter the laboratory are carefully selected and 'prepared' before they are subjected to 'scientific' tests. (Knorr-Cetina 1983, p.119)

Archaeology can be viewed very differently:

The actions of archaeologists upon the material field, instead of being highly mediated by an intervening advanced technology, are direct and physical. They are embodied actions, making great use of the sense of touch and other senses alongside vision. The degree of instrumentation is correspondingly small, including relatively simple

technologies such as spades, trowels, wheelbarrows and other hand-held tools being substituted for the more complex array of instruments in a laboratory. (Edgeworth 2010, pp.58-59)

Many forms of experimental archaeology can be seen as even more 'raw' than field archaeology. Actualistic experimentation often involves being outside, getting dirty or, in some cases, getting bloody (for example, metallurgy, pottery production or butchery). This is not in line with the view that many have of science as a clean, clinical activity; that in itself is also a false view. While many laboratories are no doubt highly clinical and controlled, many other types of scientists go outside and get dirty—well, at least, ethnologists do.

Experimental Archaeology: a Post-structuralist Experience?

Discussions of science and humanity, processualism, and post-processualism, and other theoretical 'dichotomies', often paint a polemic picture of archaeological theory with researchers taking an 'either or' approach. For example:

The criticism against treating archaeology solely as a science and attempting complete objectivity is valid; however, the rejection of science in archaeology was the Post-processualists' greatest weakness. The discipline had formerly been teetering on one foot in the scientific sector, with the Post-structuralist movement, but it now took an equally imbalanced shift in the opposite direction. It is true that not everyone working in the field at the time took on these ideas, or even entered the debate, but the literature enforces an atmosphere of revolution where one was obliged to choose a side, and be attacked either way. (Millson 2011, p.2)

Authors on experimental archaeology topics have claimed that the method was rejected by postmodernism, leading to experimental archaeology's decline during the 1980s (for example, Millson 2011; Bell Interview, Appendix 4). Such a decline cannot be verified in the results from the journal survey. In reality, there seems to have been an increase during this time in the publication of articles containing experimental archaeology. However, this is best seen in the percentages from *JAS*. It can be inferred that a journal focusing on archaeological science may not have been as affected by the post-processualist criticisms as would others. Indeed, most experimental archaeology appears to continue to follow a processual model and has not been explicitly affected by such criticism:

While the content of imitative experiments performed after the emergence of postprocessual perspectives does not appear to have undergone a shift in content and application of even the limited magnitude that followed the rise of processual archaeology, imitative experiments have "postprocessual potential" that remains largely

untapped.... (Saraydar 2008, p.13)

However, this is not to say that there is no reflective, humanistic experimental archaeology taking place. The importance of experience, as shown in Chapter 7 continues to be highlighted and developed in experimental circles. Experiential and experimental work has been done to address issues of perception of space (Marshall 2011, for example) as well as perceptions concerning artefacts and materials and the development of skill, of which Frances Liardet's PhD work is a perfect example (Liardet 2009a; 2009b; 2009c). Some of these are strongly post-processual in nature, particularly those that deal with landscape, as in the phenomenological work done as part of the Tavoliere–Gargano Prehistory Project (Hamilton et al. 2006). Actualistic experiment and construction have even been incorporated into Çatalhöyük, a project led by the instigator of post-processualism, Ian Hodder (Hodder 2000; Morgan 2009, p.10). Hodder is, perhaps, a good example of someone at the centre of the post-processualist movement who has also considered experimental archaeology to at least some extent (Hodder 1999).

While strictly scientific experimental archaeology may have less of a role in some post-processualist approaches, it might be to the responsibility of this group of archaeologists to strengthen the theoretical bases for incorporating more experiential ways of learning about the past. Finally, while post-processual criticisms have led in many cases to a stronger, theoretically robust archaeology, this does not mean that, at any point, archaeologists have stopped using a scientific approach across the board (Outram Interview, Appendix 6). In short, there has always been room for experimental archaeology over the past half century.

Experimental Archaeology: Neither Here nor There?

If experimental archaeology is viewed as a form of experiential archaeology, and as another method that can be employed when researching archaeological questions, then it is important to realise that they are a neutral factor in the dialogue between processual and post-processual archaeology (Saraydar 2008, p.13). Saraydar explain further:

The reasons are simple. They have always been used by archaeologists seeking to move beyond description to understanding. Furthermore, the kinds of problems to which they have typically been applied have a significance that transcends theoretical orientation. (Saraydar 2008, p.13)

As Coles said in *Experimental Archaeology*, experimental archaeology is a method that can benefit

all types of archaeologists (Coles 1979, p.2). Despite the usefulness and the apparent level of integration of experimentation into archaeological research, there are still worries that it is marginalised, even when others see it as being 'sanctioned by-and employed by practitioners in most theoretical programs today' (Schiffer 2009, p.21-22). Ways to address this have already been discussed: increased collaboration, publication and quality continue to be addressed by the internal criticisms coming from experimental archaeology. Practitioners also need to continue to integrate the method into theoretical frameworks as well as use it to address questions concerning method, theory and interpretation. This needs to be done within both scientific and humanistic archaeologies. This might help to address one main issue affecting experimental archaeology, which is that it often seems as though experimental archaeology, as with the rest of archaeology, is stuck between the 'two cultures' of the humanities and the sciences. However, it is important to remember that, as long as it is viewed as a tool and not a sub-discipline, it can be integrated into different theoretical frameworks. It is also important to remember that experiential archaeology can also have an important impact on archaeological research:

I think even though I do what I consider to be a scientific approach, and I think a lot of other people think what I do is a scientific approach, it's important to note that non-scientific approaches still have value. They're just not science. When someone advocates for a scientific approach, that doesn't mean that approach is the only valuable one. Now, it's the only scientific one, it's the only one that actually, I think, can move the field forward in particular ways. But non-scientific approaches are valuable. They get at things that maybe scientists wouldn't get at. Now, I think since most people in the field, especially in the Stone Age, consider themselves to be scientists, I think non-scientific experiments, quote unquote, do have a negative impact. It makes it harder for the rest of us that are trying to do real science. (Eren Interview, Appendix 8)

However, researchers need to continue actively to develop its practical and theoretical applications. By continuing to address these issues, experimental archaeology can continue to be a valuable tool that is used, when necessary, in archaeological research.

Chapter Ten: Conclusion

The analysis of the literature, both qualitative and quantitative, shows that experimental archaeology is integrated into archaeological research and that much of the criticism and discussion of its use comes from within the experimental archaeology community. Both the online questionnaire and individual interviews have revealed how people deal with experimental archaeology on an individual basis, that is, how they integrate it into research and how it affects their ways of approaching archaeology. Combined, this information has shown that there are several issues that affect experimental archaeology, including its relationship with the larger set of experiential archaeology, how academics and non-academics interrelate, and issues that are specific to academic archaeology: where and in what way it is presented and its place within theoretical and methodological frameworks.

While exploring this issue of acceptance, one area seems particularly important: presentation. One reason for this feeling of rejection may be that much of the experimental archaeology that is published is part of research results that are not labelled as experimental archaeology; those that are so labelled are often in publications that target other experimental archaeologists, not the wider archaeological community. This is when experimental archaeology is published at all: another issue that affects the acceptance of experimental archaeology is that results are often not published or not widely circulated. This applies to knowledge gained from experiential archaeology as well. Coles also noted a similar pattern in that experimental archaeology is still present but may not be as visible. Unfortunately, some of the most visible experimental (or experiential) archaeology is the least scientific, as Coles notes in his interview (Coles Interview, Appendix 3, full quote is also available on page 169).

The majority of criticisms of the method, the literature that comes from it and ways it is applied, come from people that also employ it in their own archaeological research. This debate should serve to continue to establish and fine-tune standards for experimental archaeology. However, the continued development of the method can also be helped by more positive contributions.

Researchers that associate themselves with experimental and experiential archaeology are actors with their own agency. Instead of bemoaning, as some do, the fact that the method is not as widely

accepted as they would wish it to be, researchers should continue actively to promote the method by following the levels of good practice that have been established, rooting experimental and experiential work in archaeologically relevant research and theoretical frameworks and publishing in venues that appeal to a wider audience. This is most attainable for experimental archaeologists who are already part of academia. However, in Chapter 8, it was shown that many experimental archaeologists, craftspeople and primitive technologists work on an individual basis or are associated with different types of institutions. If such groups want to be relevant, then they need to work closely with archaeology:

Researchers should spend more time on making experimental archaeology relevant to archaeology. We need to predict what should be expected and let the archaeologists explain that.... So get out there and make those predictions and let experimental archaeology stand in the service of Archaeology. If it's not relevant, it is just playing with toys again. (Callahan in Schindler 2012)

Likewise, academic archaeologists should take collaboration seriously, working with such groups to explore how their experience and knowledge can be applied to our understanding of the past. It is the integration of experiential knowledge into the framework of archaeological science that makes experimental archaeology a viable research methodology. Finally, all actors involved should remember that 'actualistic experiments should be no less rigorous than laboratory ones' (Outram 2008, pp.2–3).

While this study has shown that experimental archaeology is integrated into research at a certain level, more can be done to encourage its application. This thesis aids this cause both in a quantitative and qualitative sense. Quantitatively, it has collected experimental archaeology references and projects that otherwise might have not been as easily accessed by experimental archaeologists. The references from the journal survey and bibliography will be incorporated into the website: <http://openarchaeology.info/search/bibliography>, which is sponsored and organized by EXARC. Qualitatively, it has shown that while there is a negative view of experimental archaeology's role in archaeology, it is still well integrated.

As stated it is important to focus on and promote what experimental archaeology can do for archaeological research. This section focuses on the unique ways in which experimental archaeology can aid archaeological research. Actualistic experimentation has played a significant role in the development of important archaeological research methods, such as use-wear analysis, Semenov and Thompson (1964) is the classic example; lipid analysis – particularly in relation to pottery residue (Charters et al. 1997, Copley et al. 2005, Millson 2009); and methods for exploring

knowledge acquisition and transmission (Liardet 2009a; Sternke 2008).

Experimental archaeology also has the ability to aid in questioning assumed facts and entrenched theories that can be found in the archaeological literature:

...the questions often come out of the literature, and once you read the literature, you see things emerging as interesting questions, interesting discoveries that people have made, that you think you would have something to add to that story. And, yeah, some of the things have been long standing. You know, the questions [regarding] secondary plant exploitation, of what it always has been, go back 30 or 40 years. Suddenly you bring in a new proxy to it, and you can really start to add some hard conclusions to what had only been a theory. (Evershed Interview, Appendix 7)

I think one major source is assumptions in the literature. The archaeological literature is just rife with assumptions about material culture that have no empirical basis. The assumptions may seem logical, but unless you actually empirically test those assumptions in the real world, with physical data, those assumptions are just assertions. (Eren Interview, Appendix 8)

Schindler discusses how experiential knowledge can address assumptions concerning acorn processing (Schindler Interview, Appendix 4) and experiments with blade and discoidal cores have addressed deep-rooted assumptions concerning palaeolithic material culture (Eren et al. 2008). As with any form of research, it often throws up more questions and theories than anticipated, as is illustrated by the results from Schindler's living history project (Schindler Interview, Appendix 4). Still, this is an important avenue for addressing assumptions that we have about the past as well as about the methods that archaeologists use. In raising new questions and hypotheses, experimental archaeology can help to point archaeological research in a new direction.

Experimental and experiential archaeology also has the ability to make archaeological knowledge interesting and available to the wider public, although as mentioned in the earlier quotation by Coles, such activities are often closer to experiential on the spectrum. Experimental and experiential activities—particularly reconstructions—can help significantly in sharing knowledge and research with the public:

Probably the biggest area that I see, [and] it's been going on for a long, long time, but the place that I see the real impact is more with public education and the linking of archaeology, and archaeological evidence through primitive technologies, and therefore, at some level, experimental, in the realm of archaeological education. It's a really common thing now, when you have a public thing at a site, somebody's there making pots, or busting rocks, or they're doing something like that. We have all these outdoor centres that are focused on that. So,... I don't know if it's a change, but the public use of experiment for public education and all of its guises [has become more obvious]. Very seldom is the laboratory experiment used. Even that has some value in public education.

It authenticates and legitimises some of our interpretations [in a way] that people can see and grasp, rather than just having to believe the expert. So, that's the one area that I think has really come forward, but that's also the area where there's the most confusion and dissatisfaction in the academic world, about what's called experimental and what isn't. And once again, I just say, 'Get over it'. Yeah, those things are being misrepresented, that's bad, but, on the other hand, things are misrepresented or under-represented in archaeological interpretation to the public all the time. (Bradley Interview, Appendix 9)

Still, it is this relation to experiential archaeology that sometimes blurs individuals' views of experimental archaeology and its applications. This is one issue that was supported by the results from the online questionnaire (see Chapter 7) as well as in the interviews with Bradley and Coles (see above), and at various points in the literature – most famously by Reynolds (1999). This is why it is important to promote the fact that experiential activities can have an important place, particularly in educating the public:

Archaeological Open Air Museums are the main sites in which "experimental archaeology" activities are, if not directly carried out, made visible to the public. Although the aim of them, in some cases, has been transformed or never even intended to serve research, but to assist educational programmes which sometimes also become tourist attractions. This shifting of aims from research to education and tourism, while using the same term, has led to a fracture between the academic world and popularization within the field of "experimental archaeology" and open air museums (Mannoni and Giannichedda 2001).

Since primary data used to build Archaeological Open Air Museums are taken from research anyway, we now understand why scholars are trying to claim back the term experimental archaeology to its source: research. (Comis 2010, p.11)

In addressing established theories and assumptions and engaging the public and non-academic researchers, experimental archaeology helps to create a more open archaeology that is accessible to diversified groups of people. It can also help make academic archaeology its self more egalitarian: it can make it possible for early researchers to develop their own research areas without undertaking expensive fieldwork (Eren Interview, Appendix 8), although certainly some experiments require a large amount of time and money (Evershed, Appendix 7). As experience continues to be explored in archaeological theory, experiential and experimental archaeologies can help to establish how knowledge gained through them can be applied to archaeological knowledge.

Paths of Future Research

Root Metaphors

One possible way to ensure that experimental archaeology is more visible as a method is to change how we think about archaeological data. Edgeworth stated that the root metaphor that structures archaeological knowledge is the idea of the 'archaeological record'. In particular, the role of material remains as a 'record' of the past (Edgeworth 2003, pp.13-14).

While this metaphor has highlighted many important aspects of material evidence, it has simultaneously hidden equally important aspects of archaeological practice. It has, in effect, 'covered over' the act of discovery, the subject of this thesis. In order to bring the act of discovery to light, a different root-metaphor or ways of looking at things is required. (Edgeworth 2003, p.14)

In the same way that the metaphor of archaeology as a text has limited scope to incorporate the role of discovery and the effect that the archaeologist has on the development of data in terms of fieldwork, so too does it have limited room for experimental archaeology. Experimentation is all about creating data sets through the actions or processes developed by the researcher. This means that it is at odds with our views of archaeologists as passively receiving and reading their data, but it is also at odds with how we view experimental sciences (Saraydar 2008 and as discussed in Chapter 9). Addressing how we view our interaction with archaeological and experimental data can help to integrate imitative experiments into archaeological theoretical frameworks.

The Peer Review Process

While this thesis has been able to establish the current status quo, more research can be conducted into why experimental archaeologists feel sidelined despite a decent level of integration. Of particular interest would be a more in-depth study of the process of submitting articles containing experimental archaeology for peer review. Following the methods used here, individual interviews and anonymous questionnaires targeted towards both experimental archaeologists and editors and reviewers can help to shed light on both sides of this issue and add qualitative data to help illuminate the quantitative data represented in the journal survey. A controlled observation of the process itself, perhaps by having a group of experimental archaeologists willing to participate in submitting articles for review that contain experimental archaeology and have it listed as a keyword or in the title, and seeing if they are accepted. If not, then they could submit the same article to a

similar journal without 'experimental archaeology' as a keyword. There would be other elements that would have to be controlled to a certain extent, such as quality, the type of journal submitted to, etc. but such a long-term experiment may be possible.

Experiential Archaeology

Finally, more work needs to be done to address the role of *experiential archaeology* in archaeological research. This addresses the production of constructions, skill acquisition and knowledge, as well as the experience that comes with experiments. While much work has been in documenting experimental procedures and results, more should be done concerning less tangible issues:

Perhaps underemphasised is the degree of enjoyment that experiments can bring to archaeology, both the mental and physical exhaustion of the task, the satisfaction of the doing, the excitement of discovery. (Coles 1979, p.viii)

As explored in Chapters 7 and 8, many of the issues regarding how experimental archaeology is perceived and is accepted have to do with its relation to experiential archaeology and non-academic uses and proponents, particularly in public education and primitive skills. These activities are perceived as having some basic value, but being not necessarily applicable to archaeological research.

First, the terms 'experimental' and 'experiential' archaeology need to be properly applied. Some people associated with experimental archaeology have stated that we should move past the issue of whether something is an experiment or not and progress with research (see Bradley Interview, Appendix 9). In this scenario, the importance is whether 'real experimental archaeology continues to explore the questions we want' (John Coles in Paardekooper 2009b, p.67). Still, the semantics regarding experimental archaeology are important because they shape how people view the method and use the term:

The term "experimental archaeology" has come to mean a large number and variety of things to many people. I would like it to be restricted to what practitioners of scientific experimental archaeology do, answering questions through practical and analytical work, but I know that today the words "experimental archaeology" mean all manners of approaches, popular reconstructions included, and even modern humans (TV personalities) pretending to be what they never were and never could be but "it looks authentic", and it sells. No need to worry about answers. (Coles in Paardekooper 2009, p.67)

People that employ experiential archaeology in their work whether that work is research or

presentation—are doing themselves a disservice by claiming to be following a scientific model (see the quote from Eren, page 167).

Particularly those that work in more experiential aspects—at museums and open-air centres, for example—should start labelling experiential activities as they actually are, and the same applies to academic work that explores experiential issues. By acknowledging and exploring the true nature of their work and by addressing the relevancy of experiential archaeology, researchers and others can achieve two goals at once: define experimental archaeology more narrowly and increase the validity of experiential archaeology. This can result in an archaeology that is more inclusive of experimental and experiential approaches to knowledge acquisition.

Conclusion

The archaeological source material and, as a consequence, the range and variation of possible problems and questions, are so complex and rich that there is free scope for almost any kind of intellectual type and personal treatment. However different we are, we can all find a niche which suits us and still make an important contribution to the solution of our common problems. Some may object that this also explains why there are so many odd and eccentric personalities in archaeology. Maybe this is the case, but thank Heaven for that. Just imagine the opposite. (Gräslund 1999, p.viii)

Archaeology is a discipline that is practised internationally, at commercial, amateur and academic levels. This diversity means that there will always be room for experimental and experiential archaeologies. While experimental archaeology may be viewed as being 'stuck' between the sciences and humanities, this is something that affects archaeology as a whole. What is needed is for archaeologists, as active actors, to decide how they want to be aligned and presented, and to become more aware of the different ways of conducting science and validating experiential knowledge. This can be done by them being truthful in the type of research they are conducting, whether its experimental or experiential, following the long-established rules of good practice, collaborating with craftspeople and scientists, and presenting and publishing work – both to other experimental archaeologists, and to the wider archaeological community.

Maybe we don't need an overall structure, rules, and practical procedural methods et cetera, or a society or a journal. Instead, let the discipline evolve, let results of experiments well done and published be our overall aim. (Coles in Paardekooper 2009b, p.67)

Appendix One: Online Questionnaire Responses

Active Filter: total

Total: 110

Filtered: 69

Displaying 1 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Monday, March 15, 2010 9:15:02 AM

Response Modified:
Monday, March 15, 2010 9:28:32 AM

1. Please provide the following information:

University/ College/ Company: - Århus

State: - denmark

ZIP/Postal Code: - 5260

Country: - denmark

2. Training/Education:

MA

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

experimental archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology is a very important supportive discipline to "academic" archaeology

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I have carried out 4 experimental cremations with pigs. These partly published experiments have given me (and others too!) most important knowledge of the formation processes of a prehistoric cremation situation - and in this way - of the formation of a cremation grave. This knowledge has been used in a recent study to interpret and describe the different variations of cremation graves from the Danish Iron age.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				
landscape archaeology	X				
osteoarchoeoloav	X				

historical archaeology	X
prehistory	X
classical archaeology	X
environmental	X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - - but I'm going to this summer as I will continue with my cremation experiments (together with a specialist in osteoarchaeology)

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry					X
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites	X				
making paints from ochre	X				
burying pottery to see how it decays	X				
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 2 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Monday, March 15, 2010 9:20:15 AM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Monday, March 15, 2010 9:28:02 AM

1. Please provide the following information:

University/ College/ Company: - Reading University

State: - BERks

ZIP/Postal Code: - RG1 4QU

Country: - United Kingdom

2. Training/Education:

MA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

Using modern analogues to explain the possibilities of the archaeological record

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Recreating palaeolithic climatic conditions in a windtunnel to test Palaeolithic habitation structures
Experimentally abrading handaxes to understand their taphonomic histories

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology					X
osteoarcheology	X				
historical archaeology		X			
prehistory	X				

classical archaeology	X
environmental	X
<i>Comments:</i>	

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Strange question - I just didn't.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks			X		
building a roundhouse based on excavated sites			X		
making paints from ochre			X		
burying pottery to see how it decays					X
replicating the production of a bronze adze	X				

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

These are strange categories I have to say and I wasn't really sure what to say about them...

Active Filter: total

Total: 110

Filtered: 69

Displaying 3 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Monday, March 15, 2010 9:39:36 AM

Response Modified:
Monday, March 15, 2010 10:15:39 AM

1. Please provide the following information:

University/ College/ Company: - University of Copenhagen

Country: - Denmark

2. Training/Education:

Professional training (ex: apprenticeship, technical training, etc)

MA

BA

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

historical archaeology

experimental archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology is a research discipline within archaeology. Exp.arch. is experimental in its widest sense as it gives possibility to try things out, play with archaeological methods, material and interpretations. It is a way to open our eyes to new ways of understanding the archaeological material both by "testing" hypotheses and by opening up to new questions

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Have been involved in/runned three experiments: A winter habitation experiment, a landscape experiment (reconstruction of an Iron Age cemetery) and an experimental excavation of an old reconstructed Iron Age house. Besides that I have worked for 5 years at a experimental centre (Lejre, Denmark - the research department) which facilitate experiments (external) - I was involved in the administration of the funding of the external experiments and in helping carrying out experiments. I teach a course in experimental archaeology at University

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

very applicable applicable rarely applicable not applicable do not know

wetland archaeology	X	
underwater archaeology		X
landscape archaeology	X	
osteoarchoeology	X	
historical archaeology	X	
prehistory	X	
classical archaeology	X	
environmental	X	

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks		X			
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

I found it very hard to answer the last bit (11) as whether a project is e.g. a pre-experiment, a learning activity or an archaeological experiment is completely dependable on the context and the purpose - in which framework is the activity carried out. In my opinion (almost) all activities can be archaeological experiments if the purpose of the experiment is research and the activity is properly documented and reported afterwards

Active Filter: total

Total: 110

Filtered: 69

Displaying 4 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Monday, March 15, 2010 9:56:23 AM

Response Modified:
Monday, March 15, 2010 10:04:23 AM

1. Please provide the following information:

University/ College/ Company: - Ghent University

State: - Flanders

ZIP/Postal Code: - 9000

Country: - Belgium

2. Training/Education:

MA

3. Which of the following best describes you:

Amateur Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

classical archaeology

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

(Re-)discovering ancient or past praxis of (primarily) material culture by actively exploring all options for a given setting (the use of certain objects or combinations of objects in a certain context) to find out on an experiential, first-hand basis how this past praxis might've been operationable. (next step then is combining it with historical theory & formulating a hypothesis)

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - As member (& secretary- of a Belgian open-air / "living history" museum focussing on the Celtic time-period around 54 B.C. Focus is on Celtic culture, farming, fighting, living conditions, crafts

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology				X	
underwater archaeology				X	
landscape archaeology				X	

osteoarchoeology				X
historical archaeology	X			
prehistory		X		
classical archaeology		X		
environmental			X	
<i>Comments:</i>				

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Always

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites				X	
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 5 of 69 respondents

Response Type:

Anonymous Response

Collector:

Experiment in Archaeology Survey
(Web Link)

Custom Value:

empty

IP Address:

empty

Response Started:

Monday, March 15, 2010 11:35:20 AM

Response Modified:

Monday, March 15, 2010 12:06:12 PM

1. Please provide the following information:

University/ College/ Company: - Copenhagen University

Country: - Denmark

2. Training/Education:

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

5. Please describe experimental archaeology to the best of your ability:

Its a way to try out your theories. To get a feeling about the ancient times, and the way they lived. A way to give your knowledge to the public.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Have tried iron technology in Lejre a few times. And at the moment I'm taking classes in Experimental Archaeology.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				
landscape archaeology		X			
osteoarcheology		X			
historical archaeology	X				
prehistory	X				
classical archaeology	X				
environmental	X				

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - I didn't have the time or money.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools	X				
learning basketry		X			
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites					X
making paints from ochre			X		
burying pottery to see how it decays		X			
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

You have to watch out, so it doesn't become another Disney World and you lose the science. And you have to remember that it's an experiment, not the whole truth.

Active Filter: total

Total: 110

Filtered: 69

Displaying 6 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 16, 2010 12:38:27 PM

Response Modified:
Tuesday, March 16, 2010 12:46:03 PM

1. Please provide the following information:

University/ College/ Company: - Durham/Collingwood College

State: - Durham

ZIP/Postal Code: - dh1 3lt

Country: - England

2. Training/Education:

MA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

classical archaeology

5. Please describe experimental archaeology to the best of your ability:

The recreation of building/artifact using traditional methods of manufacture

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology			X		
landscape archaeology			X		
osteoaarchaeology			X		
historical archaeology		X			
prehistory		X			
classical archaeology	X				

environmental X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools		X			
learning basketry	X				
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 7 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 16, 2010 12:43:46 PM

Response Modified:
Tuesday, March 16, 2010 12:49:56 PM

1. Please provide the following information:

University/ College/ Company: - University of Durham

ZIP/Postal Code: - DH1 3LH

Country: - UK

2. Training/Education:

Professional training (ex: apprenticeship, technical training, etc)

MA

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

classical archaeology

5. Please describe experimental archaeology to the best of your ability:

The use of practical, hands-on research to determine different aspects of how things may have joined the archaeological record etc. For example, looking at chimneys and chimney falls in the US.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology					X
osteoarchoeology					X
historical archaeology		X			
prehistory					X
classical archaeology			X		

environmental X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools		X			
learning basketry		X			
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks			X		
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays		X			
replicating the production of a bronze adze		X			

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 8 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Tuesday, March 16, 2010 12:50:15 PM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Tuesday, March 16, 2010 12:53:42 PM

1. Please provide the following information:

University/ College/ Company: - Durham University

Country: - England

2. Training/Education:

PhD

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

5. Please describe experimental archaeology to the best of your ability:

Using new and developing techniques during archaeological excavation and interpretation

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology				X	
underwater archaeology				X	
landscape archaeology	X				
osteoaerchaeology				X	
historical archaeology	X				
prehistory	X				
classical archaeology	X				
environmental				X	
Comments:					

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools		X			
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks		X			
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays		X			
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 9 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Tuesday, March 16, 2010 12:58:27 PM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Tuesday, March 16, 2010 1:03:17 PM

1. Please provide the following information:

University/ College/ Company: - Durham University

ZIP/Postal Code: - DH1 3LE

Country: - UK

2. Training/Education:

MA

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

5. Please describe experimental archaeology to the best of your ability:

Trying to understand the manufacture, use or taphonomy of artefacts by the use of experimental techniques i.e. field testing.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				
landscape archaeology			X		
osteoarchoeology	X				
historical archaeology			X		
prehistory	X				
classical archaeology			X		

environmental X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry					X
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 10 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 16, 2010 1:04:57 PM

Response Modified:
Tuesday, March 16, 2010 1:25:10 PM

1. Please provide the following information:

University/ College/ Company: - Durham University

State: - Tyne and Wear

ZIP/Postal Code: - DH1 3LE

Country: - UK

2. Training/Education:

PhD

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

osteoaarchaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology can be very wide-ranging and includes producing reconstructions and using experimental techniques to gain an understanding of the processes which affect archaeological sites, materials, artefacts and

populations. It can range from the manufacture of a stone tool to better understand techniques used in the past to the experimental cremation of an animal carcass to understand why an archaeological cremation site appears as it does, and many other types of experimentation.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I have been involved in two reconstruction projects as a student, building prehistoric structures and using replica clothing and tools. I've also been involved in projects re-creating prehistoric and medieval food and drink. I regularly refer to the work of others which has an experimental component, i.e. using animal models to extrapolate information about disease and physical stress in archaeological populations

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				

landscape archaeology		X
osteoaerchaeology	X	
historical archaeology		X
prehistory		X
classical archaeology		X
environmental	X	

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze			X		

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

It's hard to differentiate between the activities listed above without more information about the intentions and outcomes of the activity - the construction of neolithic beakers, or any of these activities could be considered an experiment if it is repeated, has a "control" element and is observed and recorded scientifically. I think that perceptions of the validity and usefulness of archaeological experimentation are affected by a lack of a scientific approach. People often see archaeological experiments as a bit of fun, rather than something that is useful to archaeological research.

Active Filter: total

Total: 110

Filtered: 69

Displaying 11 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 16, 2010 2:02:50 PM

Response Modified:
Tuesday, March 16, 2010 2:09:02 PM

1. Please provide the following information:

University/ College/ Company: - Durham University

State: - County Durham

ZIP/Postal Code: - DH1 5BD

Country: - UK

2. Training/Education:

PhD

MA

BA

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

osteoaarchaeology

5. Please describe experimental archaeology to the best of your ability:

Field of study in which buildings, structures and devices of the past are recreated using known (or estimated) methods in order to gain a better understanding of how long it would take, manpower, resources, etc.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology				X	
underwater archaeology				X	
landscape archaeology				X	
osteoaarchaeology				X	
historical archaeology			X		

prehistory		X
classical archaeology	X	
environmental		X
Comments:		

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

No Response

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites		X			
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze		X			
Comments:					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

I think that too often experimental archaeologists make judgements based on their performance in building or creating an object, structure, etc without taking into account past fitness levels, supplies or expertise.

Active Filter: total

Total: 110

Filtered: 69

Displaying 12 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 16, 2010 2:36:16 PM

Response Modified:
Tuesday, March 16, 2010 2:41:41 PM

1. Please provide the following information:

University/ College/ Company: - university of durham

State: - durham

ZIP/Postal Code: - dh1 3ls

Country: - United Kingdom

2. Training/Education:

PhD

BSc

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

oste archaeology

5. Please describe experimental archaeology to the best of your ability:

reproducing archaeological artefacts and processes as a means of understanding them.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology			X		
underwater archaeology			X		
landscape archaeology		X			
oste archaeology		X			
historical archaeology		X			
prehistory		X			
classical archaeology			X		

environmental

X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools				X	
learning basketry		X			
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites	X				
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze		X			

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 13 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 16, 2010 2:44:40 PM

Response Modified:
Tuesday, March 16, 2010 2:54:44 PM

1. Please provide the following information:

University/ College/ Company: - Durham

Country: - UK

2. Training/Education:

PhD

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

osteoarcheology

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

learning about the past by attempting to reproduce the methods and processes used by past peoples in the present

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology			X		
underwater archaeology			X		
landscape archaeology			X		
osteoarcheology		X			
historical archaeology		X			
prehistory		X			
classical archaeology			X		
environmental	X				

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - lack of funds

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 14 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 16, 2010 3:23:49 PM

Response Modified:
Tuesday, March 16, 2010 3:32:02 PM

1. Please provide the following information:

University/ College/ Company: - Durham University

State: - Durham

ZIP/Postal Code: - DH1 3DE

Country: - UK

2. Training/Education:

PhD

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

osteoarcaeology

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

attempting the reconstruction of past peoples activities and lives in an attempt to infer the ways, means, abilities, etc those those people lived

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - flint knapping native plant harvesting and cookery atlatl construction recreation of zooarch refuse

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology		X			
osteoarcaeology		X			
historical archaeology	X				

prehistory	X	
classical archaeology		X
environmental	X	
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - I am currently finding it difficult to get permission from my department and the ethics/health committee based on the 'unknowable' outcome

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry	X				
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks		X			
building a roundhouse based on excavated sites	X				
making paints from ochre	X				
burying pottery to see how it decays		X			
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 15 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 16, 2010 4:14:54 PM

Response Modified:
Tuesday, March 16, 2010 4:24:59 PM

1. Please provide the following information:

University/ College/ Company: - Durham University

State: - Co. durham

ZIP/Postal Code: - DH1 3HP

Country: - England

2. Training/Education:

PhD

MA

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

Attempting to understand how things worked in the past by doing them now, using the best evidence available for how they were done, and recreating it as closely as possible.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology					X
landscape archaeology	X				
osteoarcheology					X
historical archaeology		X			

prehistory	X
classical archaeology	X
environmental	X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools	X				
learning basketry	X				
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites	X				
making paints from ochre	X				
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

The difference between an archaeology related experience and an archaeological experiment is the intent - are you trying to do it 'because', in which case it's the former, or to try and understand something, in which case it's the latter. The above doesn't give intent, and is hard to answer appropriately. Also, lots of them have more than one appropriate answer. Many experiments in archaeology, particularly the ones I've bene referencing, suffer from shortness - archaeologists don't undertake them for long enough - they seem to get bored / run out of money / lack proper designs. They also lack consistency of application, and so are hard to compare, and suffer from lots of archaeologists doing the same thing in an only slightly different way. In combination, this makes it very hard to build up a body of reliable experimental results and literature on a subject. Also, people rarely seem to collate the results of multiple experiements by different people on a similar subject, which is a faf to then find and collate, and means there are no overarching guildeines for others wishing to work on that topic. Experiments are rarely summarised in a relevant publication.

Active Filter: total

Total: 110

Filtered: 69

Displaying 16 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 16, 2010 5:11:27 PM

Response Modified:
Tuesday, March 16, 2010 5:24:11 PM

1. Please provide the following information:

University/ College/ Company: - Durham University

State: - Durham

ZIP/Postal Code: - DH1 3le

Country: - England

2. Training/Education:

Other (please specify) - MA by Research

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

historical archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology is the investigation of past processes and materials through contemporary recreation. Experimental archaeology can provide an insight into the dynamics of artefact production and residues associated with specific processes.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Took part in the recreation of an Anglo Saxon kiln to gain an understanding of what deposits remain post-firing. Also partook in a flint knapping exercise to gain a personal insight into the complexity of producing flint artefacts. In addition experimented with various methods of pottery production using motorised wheels, leg powered wheels and coiling techniques.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			

landscape archaeology				X
osteoarchoeology				X
historical archaeology		X		
prehistory	X			
classical archaeology		X		
environmental			X	

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Lack of available funding and location to arrange the activity

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry	X				
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 17 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 16, 2010 6:13:20 PM

Response Modified:
Tuesday, March 16, 2010 6:22:20 PM

1. Please provide the following information:

University/ College/ Company: - Durham University

State: - County Durham

ZIP/Postal Code: - DH1

Country: - UK

2. Training/Education:

MA

BSc

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

Where practical experiments are conducted to investigate a hypothesis that can then be tested with data from the archaeological record.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Measurement and analysis of experimental handaxes and their manufacture debitage to compare with archaeological assemblages.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology			X		
underwater archaeology			X		
landscape archaeology		X			
osteoarchoeology	X				

historical archaeology		X	
prehistory	X		
classical archaeology			X
environmental	X		
<i>Comments:</i>			

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Always

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point				X	
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites		X			
making paints from ochre			X		
burying pottery to see how it decays					X
replicating the production of a bronze adze			X		

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 18 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Wednesday, March 17, 2010 10:55:59 AM

Response Modified:
Wednesday, March 17, 2010 11:06:16 AM

1. Please provide the following information:

University/ College/ Company: - Durham University

State: - Durham

ZIP/Postal Code: - DH1 1SZ

Country: - England

2. Training/Education:

MSc

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

osteoarchoeology

5. Please describe experimental archaeology to the best of your ability:

the replication of past technologies which can be carried out today in order to resolve/provide hypotheses.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology					X
landscape archaeology		X			
osteoarchoeology				X	
historical archaeology				X	
prehistoric		X			

prehistory	<input checked="" type="checkbox"/>	
classical archaeology	<input checked="" type="checkbox"/>	
environmental		<input checked="" type="checkbox"/>
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					<input checked="" type="checkbox"/>
comparing the utility of stone to metal tools					<input checked="" type="checkbox"/>
learning basketry			<input checked="" type="checkbox"/>		
constructing 'neolithic' beakers				<input checked="" type="checkbox"/>	
creating a reference collection of butchery cutmarks		<input checked="" type="checkbox"/>			
building a roundhouse based on excavated sites					<input checked="" type="checkbox"/>
making paints from ochre		<input checked="" type="checkbox"/>			
burying pottery to see how it decays				<input checked="" type="checkbox"/>	
replicating the production of a bronze adze		<input checked="" type="checkbox"/>			

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response



Active Filter: total

Total: 110

Filtered: 69

Displaying 19 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Wednesday, March 17, 2010 5:24:06 PM

Response Modified:
Wednesday, March 17, 2010 5:29:00 PM

1. Please provide the following information:

University/ College/ Company: - Reading

Country: - UK

2. Training/Education:

PhD

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

carry out processes or analysing present day material from known sources to compare with and better understand archaeological material

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - micromorphology and chemistry of modern reference material for comparison with archaeology samples experimental heating of clays to look at FTIR changes at different temperatures, to compare with archaeological materials to understand early pyrotechnology

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology					X
.....					^

prehistory	X	
classical archaeology		X
environmental	X	
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools	X				
learning basketry	X				
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze	X				

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 20 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Thursday, March 18, 2010 10:29:47 AM

Response Modified:
Thursday, March 18, 2010 10:37:06 AM

1. Please provide the following information:

University/ College/ Company: - Durham University

State: - Durham

ZIP/Postal Code: - DH1 3LE

Country: - United Kingdom

2. Training/Education:

BA

Other (please specify) - 21 years as a professional field archaeologist

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

historical archaeology

experimental archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

Trying to explain/recreate past manufacturing processes, building methods.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Have undertaken experiments with lithic manufacturing, stone procurement methods

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology		X			

landscape archaeology		x
osteoarchoeology		X
historical archaeology		
prehistory	X	
classical archaeology		X
environmental	X	

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Always

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry	X				
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 21 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Thursday, March 18, 2010 12:15:30 PM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Thursday, March 18, 2010 12:25:59 PM

1. Please provide the following information:

University/ College/ Company: - NONE

State: - NONE

ZIP/Postal Code: - G66 4DN

Country: - Scotland

2. Training/Education:

BSc

Other (please specify) - MBA

3. Which of the following best describes you:

Other (please specify) - Someone who messes around with hot fires

4. Which sub-field(s) of archaeology are you most familiar with?

classical archaeology

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

A mish mash of people who like to try out things with no proper theoretical or philosophical basis.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - making copper axe, smelting copper, making fire, making shelters.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology				X	
underwater archaeology				X	
landscape archaeology				X	
osteoarchoeology				X	
historical archaeology				X	
archite...				✓	

prehistory	^
classical archaeology	X
environmental	X
<i>Comments:</i>	

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Because I use a different approach based on development pathways.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

No

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools	X				
learning basketry	X				
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites	X				
making paints from ochre	X				
burying pottery to see how it decays	X				
replicating the production of a bronze adze	X				

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

I went to the Aberdeen conference and they hadn't a clue about basic experimental methodology. These weren't experiments, and the majority were completely useless in terms of the information gathered because it wasn't useable by anyone else. Almost nobody describing themselves as "experimental archaeologists" carries out a robust repeatable experiment. In particular I was astounded by the idea that you "HAD TO USE AUTHENTIC" techniques, when it was painfully obvious the variation in output from e.g. bonfire fired pots was so great as to make the experiment burying the pots completely utterly useless except as a "nice" anecdote. Honestly, whilst a few provided useful information, the lack of any understanding of what they were doing meant that most of the projects were a waste of time.

Active Filter: total

Total: 110

Filtered: 69

Displaying 22 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Thursday, March 18, 2010 3:20:35 PM

Response Modified:
Thursday, March 18, 2010 3:24:31 PM

1. Please provide the following information:

University/ College/ Company: - Exeter

Country: - UK

2. Training/Education:

PhD

MA

BA

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

Emulating and evaluating past technologies, artefacts and practices.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			
landscape archaeology		X			
osteoarchoeology		X			
historical archaeology		X			
prehistory		X			
classical archaeology		X			

environmental X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry	X				
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites					X
making paints from ochre	X				
burying pottery to see how it decays					X
replicating the production of a bronze adze					X
Comments:					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 23 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Thursday, March 18, 2010 3:22:54 PM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Thursday, March 18, 2010 3:45:51 PM

1. Please provide the following information:

University/ College/ Company: - University of Exeter

State: - Devon

Country: - U.K.

2. Training/Education:

Professional training (ex: apprenticeship, technical training, etc)

MA

BA

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

experimental archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

Experiments are trials that test hypotheses and reach conclusions. In archaeology these could be constructions, processes and function, products and simulations.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Tested the ability of Sri Lankan archaeological remains to be iron smelting furnaces. A range of experiments replicated furnace construction, the smelting process, metal products and compared our slag with ancient slag remains (simulation).

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology			X		
landscape archaeology	X				

Active Filter: total

Total: 110

Filtered: 69

Displaying 24 of 69 respondents

Response Type:

Anonymous Response

Collector:

Experiment in Archaeology Survey
(Web Link)

Custom Value:

empty

IP Address:

empty

Response Started:

Thursday, March 18, 2010 3:25:15 PM

Response Modified:

Thursday, March 18, 2010 3:54:29 PM

1. Please provide the following information:

University/ College/ Company: - University of Exeter

State: - Devon

ZIP/Postal Code: - EX4 6DJ

Country: - England

2. Training/Education:

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

historical archaeology

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

The study of past civilisations technologies through experiments and experiences of crafts, tools and techniques.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I am currently writing a report on flintknapping however it is more of a experiential report than an experimental report.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology				X	
landscape archaeology				X	
osteoarchoeology	X				
historical archaeology		X			

prehistory		X	
classical archaeology	X		
environmental			X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools	X				
learning basketry		X			
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites			X		
making paints from ochre	X				
burying pottery to see how it decays					X
replicating the production of a bronze adze			X		

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 25 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Thursday, March 18, 2010 3:26:30 PM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Thursday, March 18, 2010 3:34:42 PM

1. Please provide the following information:

University/ College/ Company: - University of Exeter/ Archaeological Solutions

State: - Essex

ZIP/Postal Code: - CO6 2JD

Country: - United Kingdom

2. Training/Education:

Professional training (ex: apprenticeship, technical training, etc)

BA

3. Which of the following best describes you:

Other (please specify) - Professional Archaeologist and Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

Actualistic approach in which experiments are conducted in order to understand the archaeological record or processes which led to the creation of the archaeological record

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology					X
osteoarcheology			X		
historical archaeology					X

prehistory	X	
classical archaeology		X
environmental	X	

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point			X		
comparing the utility of stone to metal tools	X				
learning basketry		X			
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites			X		
making paints from ochre			X		
burying pottery to see how it decays					X
replicating the production of a bronze adze			X		

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 26 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Thursday, March 18, 2010 3:34:55 PM

Response Modified:
Thursday, March 18, 2010 3:39:55 PM

1. Please provide the following information:

University/ College/ Company: - University of Exeter

State: - Devon

ZIP/Postal Code: - EX4 4QJ

Country: - UK

2. Training/Education:

MA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

5. Please describe experimental archaeology to the best of your ability:

It seems, to one who is not engaged in it, to consist largely of playing with stuff, experiential rather than experimental, and lacking in scientific rigour.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Some experience at undergraduate level only

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology			X		
landscape archaeology			X		
osteoarchoeology			X		
historical archaeology			X		
prehistory		X			
classical archaeology			X		

environmental X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools					X
learning basketry	X				
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze		X			

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 27 of 69 respondents

Response Type:

Anonymous Response

Collector:

Experiment in Archaeology Survey
(Web Link)

Custom Value:

empty

IP Address:

empty

Response Started:

Thursday, March 18, 2010 4:48:17 PM

Response Modified:

Thursday, March 18, 2010 4:56:00 PM

1. Please provide the following information:

University/ College/ Company: - Exeter

State: - Devon

ZIP/Postal Code: - EX4 6QW

Country: - England

2. Training/Education:

MA

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

landscape archaeology

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

The scientific attempt to reconstruct the production of material culture in the past, including tools, materials and "chaines operatoire" through hypotheses, experiments and observation.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Flint knapping, cooking/baking (Scandinavian Iron Age cereals)

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology			X		
underwater archaeology			X		
landscape archaeology				X	
osteoaerchaeology			X		

historical archaeology	X
prehistory	X
classical archaeology	X
environmental	X
<i>Comments:</i>	

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools	X				
learning basketry		X			
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks			X		
building a roundhouse based on excavated sites			X		
making paints from ochre	X				
burying pottery to see how it decays	X				
replicating the production of a bronze adze	X				
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 28 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Thursday, March 18, 2010 5:00:04 PM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Thursday, March 18, 2010 5:06:58 PM

1. Please provide the following information:

University/ College/ Company: - Exeter

State: - Devon

ZIP/Postal Code: - EX4

Country: - UK

2. Training/Education:

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology I always associate with fieldwork, the overall name given to the sub-categories of fieldwalking, aerial photography, excavation, etc.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			
landscape archaeology	X				
osteoarchoeology	X				
historical archaeology		X			
prehistory		X			
classical archaeology		X			

environmental

X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools			X		
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites		X			
making paints from ochre		X			
burying pottery to see how it decays		X			
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

As a combined honours student, the experimental side of archeology is severely lacking. I always feel that straight Archaeology students have a useful advantage here.

Active Filter: total

Total: 110

Filtered: 69

Displaying 29 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Thursday, March 18, 2010 5:26:16 PM

Response Modified:
Thursday, March 18, 2010 5:34:49 PM

1. Please provide the following information:

University/ College/ Company: - Exeter University

State: - Devon

ZIP/Postal Code: - EX4 6TJ

Country: - England

2. Training/Education:

MA

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

historical archaeology

classical archaeology

5. Please describe experimental archaeology to the best of your ability:

Testing various hypotheses, it can be technological like flint knapping or ethnographical like trying to recreate a particular living condition.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				
landscape archaeology	X				
osteoarcheology		X			

historical archaeology	X
prehistory	X
classical archaeology	X
environmental	X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry					X
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks			X		
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 30 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Friday, March 19, 2010 10:11:18 AM

Response Modified:
Friday, March 19, 2010 10:18:52 AM

1. Please provide the following information:

University/ College/ Company: - University of Exeter

ZIP/Postal Code: - EX4 6LD

Country: - UK

2. Training/Education:

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

classical archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

Attempting to discover how people in the past carried out daily tasks by trying to do it yourself with appropriate tools and materials

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology		X			
landscape archaeology		X			
osteoarcheology		X			
historical archaeology		X			
prehistory	X				
classical archaeology		X			

environmental

X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point				X	
comparing the utility of stone to metal tools		X			
learning basketry				X	
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks			X		
building a roundhouse based on excavated sites					X
making paints from ochre				X	
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 31 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Friday, March 19, 2010 9:15:32 PM

Response Modified:
Friday, March 19, 2010 9:22:51 PM

1. Please provide the following information:

University/ College/ Company: - Exeter Uni

State: - Devon

ZIP/Postal Code: - EX4 4NY

Country: - UK

2. Training/Education:

BSc

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

making things the way people used to make it in the past...

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			
landscape archaeology		X			
osteoarchoeology			X		
historical archaeology		X			
prehistory		X			
classical archaeology				X	

environmental

X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools		X			
learning basketry	X				
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks			X		
building a roundhouse based on excavated sites					X
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze		X			

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 32 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Saturday, March 20, 2010 12:51:50 AM

Response Modified:
Saturday, March 20, 2010 1:06:52 AM

1. Please provide the following information:

University/ College/ Company: - University of Exeter

ZIP/Postal Code: - EX4 7AQ

Country: - UK

2. Training/Education:

Other (please specify) - Studying for BA Archaeology - Final year

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology aims to understand the human past through creation of experiments to test models and hypotheses of certain aspects of past life. Ethnography alone cannot provide us with examples of all cultural variation, but can be used to widen our views of possible cultural variations, and then ideas can be combined with experiments to help provide answers to particular archaeological problems.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Experiential archaeology, rather than strictly experimental, mainly in lithic technology though attempts to flintknapping, or creating ceramics and twine. This didn't involve experiments as such, but was part way there.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				
landscape archaeology	X				
osteoaerchaeology	X				
historical archaeology	X				
prehistory	X				

classical archaeology	X
environmental	X
<i>Comments:</i>	

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks			X		
building a roundhouse based on excavated sites			X		
making paints from ochre	X				
burying pottery to see how it decays				X	
replicating the production of a bronze adze	X				
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 33 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Monday, March 22, 2010 4:21:38 AM

Response Modified:
Monday, March 22, 2010 4:35:35 AM

1. Please provide the following information:

University/ College/ Company: - Cultural Resource Consultants, LLC

State: - Alaska

ZIP/Postal Code: - 99504

Country: - USA

2. Training/Education:

PhD

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

underwater archaeology

5. Please describe experimental archaeology to the best of your ability:

Re-creation of various human behaviors, physical objects or environmental contexts to explain or refine our understanding of the archaeological record.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Knapping

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			
landscape archaeology		X			
osteochaeology		X			
historical archaeology		X			
prehistory		X			
classical archaeology		X			

environmental

X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - I would like to make a dugout logboat- hard to obtain material and labor!

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point			X		
comparing the utility of stone to metal tools		X			
learning basketry			X		
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze			X		

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 34 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Monday, March 22, 2010 3:26:09 PM

Response Modified:
Monday, March 22, 2010 3:32:56 PM

1. Please provide the following information:

University/ College/ Company: - University of Exeter

State: - Devon

ZIP/Postal Code: - EX4 4QJ

Country: - United Kingdom

2. Training/Education:

PhD

MA

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

The use of scientific experimental process to attempt to reconstruct/understand the generation, use and/or discard of material culture artefacts in the past.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				
landscape archaeology	X				
osteoarchoeology		X			

historical archaeology	X
prehistory	X
classical archaeology	X
environmental	X
<i>Comments:</i>	

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Always

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry	X				
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks		X			
building a roundhouse based on excavated sites	X				
making paints from ochre	X				
burying pottery to see how it decays					X
replicating the production of a bronze adze					X
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 35 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 23, 2010 10:34:13 AM

Response Modified:
Tuesday, March 23, 2010 10:38:03 AM

1. Please provide the following information:

University/ College/ Company: - University of Exeter

State: - Devon

ZIP/Postal Code: - EX4 6JQ

Country: - England, UK

2. Training/Education:

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

historical archaeology

osteoarchoeology

landscape archaeology

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

Using experimental activity to disprove hypotheses related to past activities

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Flint-knapping

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology			X		
landscape archaeology			X		

landscape archaeology		X
osteoarchoeology	X	
historical archaeology		X
prehistory	X	
classical archaeology		X
environmental	X	
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites			X		
making paints from ochre				X	
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 36 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, March 23, 2010 3:28:39 PM

Response Modified:
Tuesday, March 23, 2010 3:56:22 PM

1. Please provide the following information:

University/ College/ Company: - Elfshot

State: - Newfoundland and Labrador

ZIP/Postal Code: - A1B 4J9

Country: - Canada

2. Training/Education:

MA

BSc

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

The attempt to understand past peoples and technology through replicative experiments in controlled environments, with the intent to recreate, document and understand a lost, or poorly understood, aspect of a culture known primarily from the archaeological record.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I'm a flintknapper and archaeologist who uses replicative and experimental archaeology to understand the precontact people who lived in the Canadian Arctic and Sub-Arctic. Most of my experimental work has revolved around the manufacture and use of stone tools.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology					X

osteoarchoaeology		X
historical archaeology		X
prehistory	X	
classical archaeology		X
environmental		X
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Seal hunting with a reproduction harpoon. I support seal hunting, and I think there is insight that could come from hunting seals using ancient barbed or toggling harpoons and tools, but I know that the methods would not be as quick and humane as using modern hunting tools. So for me, the insight that would come from the hunt isn't worth the suffering that it would cause the prey.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites	X				
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze					X
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

I think I could have used definitions for the 5 categories in Q11 - I'm not sure that I understood the question correctly.

Active Filter: total

Total: 110

Filtered: 69

Displaying 37 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Thursday, March 25, 2010 10:12:23 AM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Thursday, March 25, 2010 10:24:04 AM

1. Please provide the following information:

University/ College/ Company: - Durham University

State: - Durham

Country: - UK

2. Training/Education:

MA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

classical archaeology

5. Please describe experimental archaeology to the best of your ability:

An attempt towards reconstruction of past activities through experimental performance

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology		X			
landscape archaeology					X
osteoarchoeology					X
historical archaeology	X				
prehistory	X				
classical archaeology	X				
environmental					X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Did not have necessary manpower and equipment.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites		X			
making paints from ochre	X				
burying pottery to see how it decays					X
replicating the production of a bronze adze			X		

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 38 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Friday, April 2, 2010 8:33:03 PM

Response Modified:
Friday, April 2, 2010 8:39:27 PM

1. Please provide the following information:

University/ College/ Company: - EXARC

State: - n/a

ZIP/Postal Code: - 5651 CE

Country: - the Netherlands

2. Training/Education:

MA

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

I like the Mathieu definition, combined with Outrams comments in World Archaeology

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - use wear analysis training (Leiden University), planning and construction of an 'Iron Age' longhouse (HOME Museum), very often coordination and design of other people's experiments (on for example medieval cloth making).

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				
landscape archaeology		X			
osteoarchoeology	X				
historical archaeology	X				
prehistoric	X				

prehistory	^
classical archaeology	X
environmental	X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point			X		
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks			X		
building a roundhouse based on excavated sites	X				
making paints from ochre	X				
burying pottery to see how it decays					X
replicating the production of a bronze adze			X		

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

question 11 is hard to answer because the activity itself does not make something an experiment, it depends on the design, goals, and much more. option "building a round.." can be anything for that matter!

Active Filter: total

Total: 110

Filtered: 69

Displaying 39 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Friday, April 2, 2010 8:47:22 PM

Response Modified:
Friday, April 2, 2010 8:54:23 PM

1. Please provide the following information:

University/ College/ Company: - University of Durham

State: - Durham County

ZIP/Postal Code: - DH1 2LD

Country: - United Kingdom

2. Training/Education:

PhD

MSc

Other (please specify) - Licenciatura

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

landscape archaeology

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

The deliberate replication of conditions held to be responsible for causing particular material outcomes in order to verify causation and identify material signatures for archaeological study.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Hearths,

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				

landscape archaeology	X
osteoarchoeology	X
historical archaeology	X
prehistory	X
classical archaeology	X
environmental	X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Well the take time and money to set up: I have about 1000 Id like to set up in my head

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Always

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

I dont really understand the sense of the previous question and the alternatives are restrictive and do not reflect the scope of what I think. For instance, for me basketry is a learning activity because basketry doesnt preserve in Amazonia, where I work, and yet there's rich ethnographic use of basketry. It might be experimentation if related to a context where it does preserve.

Active Filter: total

Total: 110

Filtered: 69

Displaying 40 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Friday, April 2, 2010 11:11:38 PM

Response Modified:
Friday, April 2, 2010 11:21:08 PM

1. Please provide the following information:

University/ College/ Company: - University of Melbourne

State: - Victoria

ZIP/Postal Code: - 3010

Country: - Australia

2. Training/Education:

Other (please specify) - Postgraduate Diploma, now doing a PhD.

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

classical archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

In my case, it would be hollowing out a stone block and attempting to grow a plant in it, with dirt of course, in order to understand how the plants in the rock-cut pits at the Temple of Hephaistos in the Athenian Agora could grow without getting waterlogged. Experimental archaeology, in my opinion, is trying to re-create proposed methods or behaviours from the past and seeing what results are achieved.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I participated in an experiment involving adopting particular physical poses, as seen in Minoan iconography, in order to discern whether these poses had an effect on the psyche, in other words, did they cause an altered state of consciousness.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			

landscape archaeology	X	
osteoarchoeology		X
historical archaeology	X	
prehistory	X	
classical archaeology	X	
environmental	X	

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Only because I haven't actually got around to doing it yet.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point				X	
comparing the utility of stone to metal tools				X	
learning basketry				X	
constructing 'neolithic' beakers				X	
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites				X	
making paints from ochre				X	
burying pottery to see how it decays				X	
replicating the production of a bronze adze				X	

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

Those categories were hard, I could have ticked other ones. I could also have said that all those activities were archaeological experiements, but because I didn't know the context of the activity, I said pre-experiment.

Active Filter: total

Total: 110

Filtered: 69

Displaying 41 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Friday, April 2, 2010 11:59:12 PM

Response Modified:
Saturday, April 3, 2010 12:07:39 AM

1. Please provide the following information:

University/ College/ Company: - University of Melbourne

State: - Victoria

ZIP/Postal Code: - 3001

Country: - Australia

2. Training/Education:

MA

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology involves performing acts to observe outcomes or test hypotheses.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			
landscape archaeology					X
oste archaeology		X			
historical archaeology					X
prehistory			X		
classical archaeology					X

environmental X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools		X			
learning basketry		X			
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks			X		
building a roundhouse based on excavated sites			X		
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze			X		

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 42 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Sunday, April 4, 2010 10:24:52 AM

Response Modified:
Sunday, April 4, 2010 10:39:48 AM

1. Please provide the following information:

University/ College/ Company: - University of Basle

State: - City of Basle

ZIP/Postal Code: - 4051

Country: - Switzerland

2. Training/Education:

MA

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

wetland archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology is a means of testing scientific hypothesis in archaeology by practical experiment.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			
landscape archaeology			X		
osteoaerchaeology			X		
historical archaeology			X		
prehistory		X			
classical archaeology					X

environmental

X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Never had the time to do more than my usual demonstrations of prehistoric techniques (fire making, flintknapping etc.), which are no experimental archaeology at all.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point				X	
comparing the utility of stone to metal tools					X
learning basketry	X				
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites			X		
making paints from ochre				X	
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

Question 11. is - at least for me - not answerable in a reasonable way: The construction of e.g. neolithic houses or beakers or the making of ochre paints can be everything from archaeology related experience to archaeological experiment, depending on the aims, the means or the approach of the participants/researchers.

Active Filter: total

Total: 110

Filtered: 69

Displaying 43 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Sunday, April 4, 2010 1:59:28 PM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Sunday, April 4, 2010 2:32:02 PM

1. Please provide the following information:

University/ College/ Company: - West Stow Anglo-Saxon Village

State: - Suffolk

ZIP/Postal Code: - IP28 6DP

Country: - England

2. Training/Education:

MA

BA

3. Which of the following best describes you:

Other (please specify) - Experimental Archaeologist (full time)

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

The systematic practical approaches used in testing hypothesis and theory in archaeological research.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I volunteered for one month at Butser Ancient Farm during my MA course and I have worked as an experimental archaeologist for almost four years at West Stow Anglo-Saxon Village.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				
landscape archaeology	X				
oste archaeology	X				
historical archaeology	X				

prehistory	X
classical archaeology	X
environmental	X
<i>Comments:</i>	

9. Have you ever considered undertaking an archaeological experiment, but did not?

No Response

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze		X			

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

The opinions and skills of craft specialists should be taken into account when setting up experiments. If the experimenter chooses to ignore this and start from scratch, they are not experimenting at all but merely having a go at something interesting. Have some respect for experts who know what they are talking about and have some respect for ancient craftspeople. Forging, building, spinning and weaving were not learnt in a week!

Active Filter: total

Total: 110

Filtered: 69

Displaying 44 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Tuesday, April 6, 2010 8:03:26 AM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Tuesday, April 6, 2010 8:15:46 AM

1. Please provide the following information:

University/ College/ Company: - Ludwig Maximilians Universität Munich

State: - Bavaria

ZIP/Postal Code: - 80359

Country: - Germany

2. Training/Education:

Other (please specify) - Dr. rer. biol. hum.

3. Which of the following best describes you:

Amateur Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

reconstruction & test the gain of exvacation finds

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - reconstruction of instruments, clothing and test the gain in consideration of GSP

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology					X
osteoaarchaeology					X
historical archaeology					X
prehistory					X
classical archaeology					X

environmental X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers				X	
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze			X		
Comments:					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 45 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, April 6, 2010 10:02:21 AM

Response Modified:
Tuesday, April 6, 2010 10:10:25 AM

1. Please provide the following information:

University/ College/ Company: - McGill
State: - Quebec
ZIP/Postal Code: - H4B 2S1
Country: - Canada

2. Training/Education:

Professional training (ex: apprenticeship, technical training, etc)
MA

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory
landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

The attempt the understand how artifacts were used/made/taphonomically affected by trying to reproduce these processes.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Spent hours, possibly days, scraping raw hide of deer, tanned hide, and juniper wood with 'disposable' scrapers to create a comparative collection for a friends' PhD excavation. They were then analyzed under an SEM and compared.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology					X
ocean archaeology					X

osteoarhaeology		^
historical archaeology	X	
prehistory	X	
classical archaeology		X
environmental		X
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Questioning the amount of effort it would take versus the benefits of the results.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools				X	
learning basketry	X				
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays				X	
replicating the production of a bronze adze					X
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 46 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Tuesday, April 6, 2010 10:18:06 AM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Tuesday, April 6, 2010 10:26:38 AM

1. Please provide the following information:

University/ College/ Company: - University of Cambridge

ZIP/Postal Code: - CB21TQ

Country: - United Kingdom

2. Training/Education:

PhD

MA

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

historical archaeology

classical archaeology

5. Please describe experimental archaeology to the best of your ability:

Modern day practice of testing predictions or hypotheses about the past, often involving practices that reconstruct materials, techniques, or actions that the experimenters think were used or enacted in the past.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Personally: just flint knapping and butchering animals with the flint. Second-hand: watching others do / teach about experimental archaeology (making 'Bronze Age' copper, doing medieval smelting, more flint knapping).

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology			X		
landscape archaeology			X		

osteoarchoeology		X
historical archaeology	X	
prehistory	X	
classical archaeology	X	
environmental		X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools		X			
learning basketry	X				
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks		X			
building a roundhouse based on excavated sites					X
making paints from ochre			X		
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 47 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, April 6, 2010 10:22:04 AM

Response Modified:
Tuesday, April 6, 2010 11:21:13 AM

1. Please provide the following information:

University/ College/ Company: - Naturhistorische Gesellschaft Nürnberg

State: - Bavaria

ZIP/Postal Code: - D-9042

Country: - Germany

2. Training/Education:

BSc

Other (please specify) - BSc not related to Archaeology

3. Which of the following best describes you:

Amateur Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

5. Please describe experimental archaeology to the best of your ability:

The term E.A. must be strictly limited to real experiments in the classical sense. That means you prove a theory with this experiment. The experiment must be described in all details, the steps and detailed be documented, the results must be

documented and validated. The Experiment must be repeatable. The main problem is to find the correct experimental setup. It must be clear that this setup really answers your question(s). The setup must be unbiased. It is not valid, to make a setup which exactly leads to the answer you may expect. An E.A. is really time consuming and a very, very detailed and scientific thing. The problems are: a) formulate a meaningful question, b) to find the correct setup c) documentation and validation. An E.A. can only answer with hard facts, it never can be used as a term for "social experiments", pretending to live like a Celt, a Roman or a trench wading WWI-soldier etc. Most we see usually is at best called "Reconstructive Archaeology". That means Living history, social tests, handling of this or that equipment, or any other attempt to create images of prehistoric life like drawings, paintings or models. I even don't consider any artisanal methods to find out how this or that was made as a real experiment, because they are always based on modern thinking.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - To be honest – the answer should be No. We do a lot of "Reconstructive Archaeology" for our museum, we maintain a trail with archaeological sites, rebuilding tumuli or erecting houses, based on archaeological facts. Our aim is to populate the Archaeology and its goals. We don't do E.A. in the sense described above.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			
landscape archaeology		X			
osteoarchoeology	X				
historical archaeology		X			
prehistory	X				
classical archaeology			X		
environmental		X			
<i>Comments:</i>					

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Our society is complete run by volunteers, even the PhD or MA of Prehistory don't earn a shilling. It is not that we lack of interesting issues or lack of ability to generate meaningful setups. We lack time and money.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Always

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre-experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools		X			
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays				X	
replicating the production of a bronze adze			X		
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

The Definition of E.A. is very important. A real E.A. is doubtless a scientific thing and therefore more or less a matter of scientific trained people. But they should really listen to their "Scientific neighbourhood", maybe Biologist, Chemists and so on. And they should really listen to artisans, to prevent simple mistakes. Those who consider their "Reconstructive Archaeology" as being "experiments" should learn what the difference is and how to create a real setup. And what both sides should learn is not to quarrel and squabble, but to talk and listen to each other. Yours Thomas I wish you all the best for your work !

Active Filter: total

Total: 110

Filtered: 69

Displaying 48 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, April 6, 2010 12:26:42 PM

Response Modified:
Tuesday, April 6, 2010 12:31:24 PM

1. Please provide the following information:

University/ College/ Company: - University of Nottingham

State: - Nottinghamshire

ZIP/Postal Code: - NG7 2RD

Country: - United Kingdom

2. Training/Education:

PhD

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

classical archaeology

5. Please describe experimental archaeology to the best of your ability:

Theories on how archaeological artefacts/sites may have functioned are tested by experimentation.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				
landscape archaeology	X				
osteoarchoeology	X				
historical archaeology	X				
prehistory	X				
classical archaeology	X				

environmental

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools				X	
learning basketry		X			
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites					X
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 49 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, April 6, 2010 12:31:17 PM

Response Modified:
Tuesday, April 6, 2010 12:44:37 PM

1. Please provide the following information:

University/ College/ Company: - University of Florida

State: - FL

ZIP/Postal Code: - 32611

Country: - USA

2. Training/Education:

PhD

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

5. Please describe experimental archaeology to the best of your ability:

Tests archaeological hypotheses in controlled circumstances (including in laboratory and actualistic settings, but not in ethnographic settings). [The latter is experimental ethnoarchaeology, a somewhat different beast.]

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			
landscape archaeology		X			
osteochaeology		X			
historical archaeology		X			
prehistory		X			
classical archaeology		X			

environmental

X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers				X	
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites		X			
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze				X	

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 50 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, April 6, 2010 12:55:41 PM

Response Modified:
Tuesday, April 6, 2010 1:04:44 PM

1. Please provide the following information:

University/ College/ Company: - McGill University

State: - Quebec

ZIP/Postal Code: - H3A 2T7

Country: - Canada

2. Training/Education:

MA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology examines processes in current time that have relevance to the formation processes involved in the archaeological record. In doing so, experimental archaeology seeks to identify such processes, their agents and effects, and extend them for archaeological interpretation.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Studying the impact of different stone tool marks on bone, to examine the variability in cut marks. Casual experimental butchering, including defleshing and breaking bones for marrow extraction.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology				X	
underwater archaeology				X	
landscape archaeology		X			
osteoaarchaeology		X			

historical archaeology				X
prehistory	X			
classical archaeology				X
environmental		X		
<i>Comments:</i>				

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Time and financial constraints

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools		X			
learning basketry	X				
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks		X			
building a roundhouse based on excavated sites		X			
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 51 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, April 6, 2010 3:21:14 PM

Response Modified:
Tuesday, April 6, 2010 3:46:23 PM

1. Please provide the following information:

University/ College/ Company: - McGill University

State: - Quebec

ZIP/Postal Code: - H3A 2T7

Country: - Canada

2. Training/Education:

MA

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology is the use of actualistic studies to help empirically understand the archaeological record. This includes studies of artifact (stone, bone, ceramic, metal, etc.) replication, artifact decomposition/preservation, the impact of flowing water on site preservation, artifact use and use-wear, among many others.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I have experience replicating prehistoric chipped stone tools to better understand the manufacturing process and debitage analysis.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology			X		
underwater archaeology			X		
landscape archaeology		X			
osteology		X			

osteoar chaeology	^	
historical archaeology		X
prehistory	X	
classical archaeology		X
environmental		X
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Lack of time and resources

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools				X	
learning basketry		X			
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze		X			
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

Just a brief comment about how certain categories like landscape and environmental archaeology are very ambiguous as they mean different things depending on a persons archaeological background. In some cases Landscape is synonymous with settlement studies, in others it means past land use, and then in others it more of a phenomenological approach. These have very different relationships with actualistic/experimental studies. One aspect that wasn't included in the survey that is relevant to actualistic studies is Geoarchaeology.

Active Filter: total

Total: 110

Filtered: 69

Displaying 52 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, April 6, 2010 4:00:45 PM

Response Modified:
Tuesday, April 6, 2010 4:16:17 PM

1. Please provide the following information:

University/ College/ Company: - McGill

State: - QC

ZIP/Postal Code: - h3v1c2

Country: - Canada

2. Training/Education:

MSc

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

experimental archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

The replication of archaeological artefacts using the tools and materials available at the time of a site's occupation. The goal is to better understand the manufacturing process or more generally to gain new insight into the things found in the archaeological record (eg. tools, structures, etc.). Experimental archaeology improves your ability to recognize artefacts and to interpret them.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - As an undergrad I spent time helping a PhD student who was studying use-wear on lithics. We spent specific time intervals scraping hides, cutting wood, scraping wood, etc with expedient flake tools.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology		✓			

underwater archaeology		^
landscape archaeology		X
osteoarchoeology	X	
historical archaeology	X	
prehistory	X	
classical archaeology		X
environmental		X
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - I passed off the experiment to an undergrad to do.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry				X	
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites					X
making paints from ochre				X	
burying pottery to see how it decays					X
replicating the production of a bronze adze					X
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

There are limits to the interpretations from experiental archaeology because just because something can be made one way doesn't mean the artefact was made that way, ie. equifinality.

Active Filter: total

Total: 110

Filtered: 69

Displaying 53 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Tuesday, April 6, 2010 5:25:57 PM

Response Modified:
Tuesday, April 6, 2010 5:34:42 PM

1. Please provide the following information:

University/ College/ Company: - University of Liverpool

Country: - UK

2. Training/Education:

PhD

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

experimental archaeology

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

It should be the testing of an archaeological theory via experiment.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Helped build a roundhouse once. Lots of experience with experimental archaeologists - they're often quite strong characters and often aren't as interested in the archaeological evidence as you might expect!

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology	X				
landscape archaeology	X				
osteoarchoeology	X				
historical archaeology	X				
prehistory	X				

classical archaeology	X
environmental	X
<i>Comments:</i>	

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - I was the only woman on a research team with ten men, who wanted me to do all the work!

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks		X			
building a roundhouse based on excavated sites					X
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 54 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Wednesday, April 7, 2010 8:27:30 AM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Wednesday, April 7, 2010 8:44:50 AM

1. Please provide the following information:

University/ College/ Company: - HistoFakt

ZIP/Postal Code: - 33617

Country: - Germany

2. Training/Education:

MA

3. Which of the following best describes you:

Other (please specify) - Professional Historian

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

I consider exp. Arch. as an attempt of physical interpretation of archaeological finds. That is, to reconstruct people's living conditions, tools, weapons, clothing etc., put them to use and evaluate the results. Also, whenever possible, known or assumed manufacturing methods relating to that period in time should be applied.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - In the above sense I have a little experience in "experimental archery".

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology					X
osteoarcheology				X	
historical archaeology	X				
prehistory		X			
classical archaeology		X			

environmental	X
<i>Comments:</i>	

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Lack of manual abilities ...

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point			X		
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks		X			
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays	X				
replicating the production of a bronze adze					X
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 55 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Wednesday, April 7, 2010 10:47:19 AM

Response Modified:
Wednesday, April 7, 2010 10:51:59 AM

1. Please provide the following information:

University/ College/ Company: - Cambridge University

Country: - United Kingdom

2. Training/Education:

PhD

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

historical archaeology

5. Please describe experimental archaeology to the best of your ability:

Recreating physical situations or practices so as to be able to observe the material outcomes, relationships, patterns etc that are produced. This can then help archaeologists to interpret archaeological remains

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have never cited or referenced an archaeological experiment

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology			X		
underwater archaeology			X		
landscape archaeology				X	
osteoaarchaeology				X	
historical archaeology		X			
prehistory	X				
classical archaeology	X				

environmental

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre-experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools	X				
learning basketry	X				
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks		X			
building a roundhouse based on excavated sites	X				
making paints from ochre	X				
burying pottery to see how it decays	X				
replicating the production of a bronze adze	X				

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 56 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Wednesday, April 7, 2010 11:53:41 AM

Response Modified:
Wednesday, April 7, 2010 12:15:16 PM

1. Please provide the following information:

University/ College/ Company: - Glasgow/Lithics.ie

State: - Lanarkshire/Co. Cork

ZIP/Postal Code: - G128QQ

Country: - UK & Ireland

2. Training/Education:

PhD

MA

BA

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

The re/creation of experimentally generated data based on archaeological examples, e.g. artefacts, structures etc using known archaeological methods, techniques and materials. In an ideal situation, the experiments are actualistics and can be re-created/repeated for the purpose of re-testing. Experimental archaeology is carried out to test and contest specific hypotheses or to discover previously unknown production/construction methods and techniques.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I have 10 years worth of experience in knapping of different types of rock. Further, I carried out different peripheral experiments relating to the use, manufacture and hafting of specific stone tools such as arrowheads, axes etc. I frequently use experimental archaeology for teaching purposes.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			

underwater archaeology	X
landscape archaeology	X
osteoarchoeology	X
historical archaeology	X
prehistory	X
classical archaeology	X
environmental	X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Lack of time and/or financial support.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Always

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry					X
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

Hi, Okay, I am a bit confused about section 11. I am not sure if the ambiguity is intended. I would consider all of the activities archaeological experiments IF they are recorded properly and place within a research framework. If this is not the case, I would probably call them archaeology related experiences or pre-experiments (although the latter by right ought to be recorded too, regardless). I would consider all of the activities learning experiences. No matter how often I knap, I learn something in every session - even if it is only further practice, i.e. the learning/training of gestures. I can see where you are heading with this though and it will be interesting what people think. I think I could have expressed my opinion better with multiple answers in this section. Looking forward to your results! Good luck with your research!

Active Filter: total

Total: 110

Filtered: 69

Displaying 57 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Wednesday, April 7, 2010 11:54:54 AM

Response Modified:
Wednesday, April 7, 2010 12:07:29 PM

1. Please provide the following information:

University/ College/ Company: - University of Liverpool

ZIP/Postal Code: - L69 3SZ

Country: - UK

2. Training/Education:

BA

Other (please specify) - PhD in progress, not submitted yet

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

classical archaeology

5. Please describe experimental archaeology to the best of your ability:

Understanding the past through replication of past behaviour, especially manufacturing, agriculture, architecture and technology. Recording and analysis equal parts of the process to replication.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Used results of experimental firings of pottery kilns & clamps. Observed the material traces left by experimental firings of pottery kilns & clamps. Observed experimental cooking demonstration with replica pottery vessels. Attended flint-knapping demonstrations.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology		X			
osteoarchoeology					X
historical archaeology					X
prehistory		X			

classical archaeology	X
environmental	X
<i>Comments:</i>	

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites		X			
making paints from ochre				X	
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 58 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Wednesday, April 7, 2010 3:50:21 PM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Wednesday, April 7, 2010 4:01:38 PM

1. Please provide the following information:

University/ College/ Company: - McGill

State: - Québec

ZIP/Postal Code: - h2t 2g1

Country: - Canada

2. Training/Education:

MSc

BA

Other (please specify) - and B. Ed

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

historical archaeology

classical archaeology

underwater archaeology

landscape archaeology

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

Having fun at the job... and Trying to develop a better theory for the data at hand.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

very applicable applicable rarely applicable not applicable do not know

wetland archaeology		X
underwater archaeology	X	
landscape archaeology		X
osteoarchoeology	X	
historical archaeology	X	
prehistory	X	
classical archaeology	X	
environmental		X
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre	X				
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 59 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Thursday, April 8, 2010 8:36:07 AM

Response Modified:
Thursday, April 8, 2010 8:45:10 AM

1. Please provide the following information:

University/ College/ Company: - universität zürich

Country: - switzerland

2. Training/Education:

PhD

3. Which of the following best describes you:

Professional Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

landscape archaeology

5. Please describe experimental archaeology to the best of your ability:

replicating prehistoric action and chaine operatoire with the aim of gaining new insights into (pre)historic behaviour

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - for my phd I do experiments with late mesolithic lithics to reproduce use wear traces. I on purpose do NOT aim to reconstruct mesolithic ways of doing things, i just want the use wear traces as references.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology			X		
underwater archaeology			X		
landscape archaeology			X		
osteoarchoeology				X	
historical archaeology			X		
prehistory			X		
classical archaeology			X		

environmental

X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools		X			
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks			X		
building a roundhouse based on excavated sites		X			
making paints from ochre		X			
burying pottery to see how it decays		X			
replicating the production of a bronze adze		X			

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

Modern exp. are by definition to result-directed and uni-linear & situated in our modern notions of production. The are mostly a learning activity, seldomly an scientific experiment, that can provide a full insight into the past.

Active Filter: total

Total: 110

Filtered: 69

Displaying 60 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Thursday, April 8, 2010 11:20:54 AM

Response Modified:
Thursday, April 8, 2010 11:36:00 AM

1. Please provide the following information:

University/ College/ Company: - Institute of prehistory

State: - Cantabria

Country: - Spain

2. Training/Education:

MA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

The discipline concerned with the experimental reconstruction of human activities in relation to archaeological remains in order to understand them (the archaeological remains)

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I am developing an experimental program to evaluate the taphonomy processes which take place in the formation of the archaeological record composed of nutshells.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			
landscape archaeology		X			
osteoaarchaeology		X			
historical archaeology		X			
prehistory		X			

classical archaeology	X
environmental	X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry					X
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

This comment concerns the question n°11. I think the question should allow to place the activities in more than one category

Active Filter: total

Total: 110

Filtered: 69

Displaying 61 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Sunday, April 11, 2010 2:39:04 AM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Sunday, April 11, 2010 3:18:15 AM

1. Please provide the following information:

University/ College/ Company: - University of Sussex

State: - Sussex

ZIP/Postal Code: - BN1 9QQ

Country: - UK

2. Training/Education:

MA

MSc

BA

3. Which of the following best describes you:

Other (please specify) - PhD student

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

5. Please describe experimental archaeology to the best of your ability:

Testing hypotheses of how things were or may have been done with certain materials, in certain conditions, etc.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology			X		
underwater archaeology			X		
landscape archaeology			X		
osteoarcheology			X		
historical archaeology		X			

prehistory	^		
classical archaeology		X	
environmental			X
<i>Comments:</i>			

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 62 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Sunday, April 11, 2010 6:38:53 AM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Sunday, April 11, 2010 6:48:44 AM

1. Please provide the following information:

University/ College/ Company: - Heinrich Heine University Duesseldorf

ZIP/Postal Code: - D-40225

Country: - Germany

2. Training/Education:

PhD

3. Which of the following best describes you:

Amateur Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

Performing experiments based on findings, written sources, and logical deduction

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Reconstructions of ancient bows (Scythian bows, Greek bows).

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology		X			
landscape archaeology			X		
osteoarchoeology			X		
historical archaeology	X				
prehistory		X			
classical archaeology	X				
environmental		X			

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks		X			
building a roundhouse based on excavated sites	X				
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze		X			

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 63 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Friday, April 16, 2010 9:22:17 PM

Response Modified:
Friday, April 16, 2010 9:37:59 PM

1. Please provide the following information:

University/ College/ Company: - University of Reading

State: - Berkshire

ZIP/Postal Code: - RG6 6AB

Country: - UK

2. Training/Education:

MSc

BA

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

experimental archaeology

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

A scientific approach used to reconstruct and understand the formation processes of the archaeological record and artefacts within it.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I have taken part in excavations and collected samples for scientific analyses from earthworks and buildings from several experimental sites experimental archaeological sites in the UK and Denmark.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology	X				
underwater archaeology					X
landscape archaeology	X				

osteoarchoeology	X
historical archaeology	X
prehistory	X
classical archaeology	X
environmental	X

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry	X				
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

Re Q11- I supposed I selected 'archaeological experiment' for most of the activities as these activities if recorded properly would be experiments rather than learning activities, although there is no reason why they can't be all of the categories. My opinion is that comprehensive recording is crucial for experimental archaeology.

Active Filter: total

Total: 110

Filtered: 69

Displaying 64 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Thursday, April 29, 2010 2:10:12 PM

Response Modified:
Thursday, April 29, 2010 2:31:26 PM

1. Please provide the following information:

University/ College/ Company: - University of Exeter

State: - Devon, England, UK

ZIP/Postal Code: - EX4 1RB

Country: - England, UK

2. Training/Education:

MA

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology aims to answer questions from archaeology by setting up replicative scientific experiments that reconstruct a whole or partial process as observed in, or implied by, the archaeological record. The results can be used as an analogy to the archaeological record and can be used to falsify or support theories about how things occurred in the past.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - I have a MA in Experimental Archaeology, have taken part in experiments beyond this and am utilising experimental archaeology in my PhD research.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology				X	
landscape archaeology			X		

osteoarchoeology		X
historical archaeology	X	
prehistory		X
classical archaeology	X	
environmental		X
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - I have had ideas for experiments that had far too many variables to be successfully controlled, or which were too large a scale to be easily tackled.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point	X				
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers	X				
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites			X		
making paints from ochre	X				
burying pottery to see how it decays					X
replicating the production of a bronze adze	X				
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 65 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Friday, May 14, 2010 9:24:58 AM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Friday, May 14, 2010 9:53:09 AM

1. Please provide the following information:

University/ College/ Company: - Rijksuniversiteit Groningen

State: - Groningen

ZIP/Postal Code: - 9404

Country: - Netherlands

2. Training/Education:

MA

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

historical archaeology

experimental archaeology

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental Archaeology is the practical approach required to complete our knowledge of history; it provides the valuable additional information which is needed to truly understand history. Experimental Archaeology can focus on any period, material and aspect of history, but always does it involve a practical experiment which is, if possible, complemented with technical data.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Both my Bachelor's and Master's theses consisted of the experimental reproduction and testing of early medieval arms and armour to discern their function (decorative or practical).

7. How often you cite or reference material from archaeological experiments for your own work or research?

I regularly cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology		X			
underwater archaeology			X		
landscape archaeology	X				

osteoarchoeology		X
historical archaeology	X	
prehistory	X	
classical archaeology	X	
environmental	X	

Comments:

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry		X			
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays					X
replicating the production of a bronze adze			X		

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

Many experiments lack a scientific base which renders them almost unusable; experiments should more often accept the use of modern analytic methods to test their viability. Also, the focus of most experiments is either pre-historic or environmental, however, many experiments can be performed using material from classical or medieval times. As a last comment, i would like to note that archaeological experiments should not be under-estimated; they provide a very valuable addition to regular archaeological research.

Active Filter: total

Total: 110

Filtered: 69

Displaying 66 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Friday, May 14, 2010 1:37:44 PM

Response Modified:
Friday, May 14, 2010 1:50:01 PM

1. Please provide the following information:

University/ College/ Company: - Het Stenen Tijdperk

Country: - Netherlands

2. Training/Education:

MA

3. Which of the following best describes you:

Other (please specify) - Stone age craftsman

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

Testing academic theory with experiments that can be repeated and are well controlled

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - But mostly on the lowest level (Callahan, Lammers): living experiments, working with replica's and making replica's using various materials like flint, bone, wood, fibres etc

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					X
underwater archaeology					X
landscape archaeology					X
osteoaarchaeology					X

historical archaeology		X
prehistory	X	
classical archaeology		X
environmental		X
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

Yes (please specify why you did not undertake the experiment) - Far too much work...

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Occasionally

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre-experiment (4)	archaeological experiment (5)
flintknapping a projectile point			X		
comparing the utility of stone to metal tools		X			
learning basketry		X			
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays	X				
replicating the production of a bronze adze			X		

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

In the above I find it difficult to dub anything an archeological experiment as so little info is given, Construction can be an experiment under certain circumstances and not under others. We shouldn't call something an archeological experiment unless it satisfies the definition of a scientific experiment. Good luck!

Active Filter: total

Total: 110

Filtered: 69

Displaying 67 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Sunday, May 16, 2010 10:18:59 AM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Sunday, May 16, 2010 10:23:26 AM

1. Please provide the following information:

University/ College/ Company: - University of Leiden

State: - Zuid-Holland

ZIP/Postal Code: - 2221TL

Country: - Katwijk

2. Training/Education:

BA

3. Which of the following best describes you:

Archaeology Student

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

osteoarchoeology

experimental archaeology

5. Please describe experimental archaeology to the best of your ability:

Learning from experiments, how things had worked and how they had made it.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

No

7. How often you cite or reference material from archaeological experiments for your own work or research?

I have cited or referenced an archaeological experiment once or twice

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology			X		
underwater archaeology			X		
landscape archaeology			X		
osteoarchoeology		X			
historical archaeology		X			
architectural					

prehistory	X	
classical archaeology		X
environmental	X	
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Always

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point		X			
comparing the utility of stone to metal tools	X				
learning basketry					X
constructing 'neolithic' beakers			X		
creating a reference collection of butchery cutmarks	X				
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays	X				
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 68 of 69 respondents

Response Type:
Anonymous Response

Collector:
Experiment in Archaeology Survey
(Web Link)

Custom Value:
empty

IP Address:
empty

Response Started:
Wednesday, August 4, 2010 8:55:37 PM

Response Modified:
Wednesday, August 4, 2010 9:00:21 PM

1. Please provide the following information:

University/ College/ Company: - Brooklyn Museum

State: - NY

ZIP/Postal Code: - 11238

Country: - USA

2. Training/Education:

Professional training (ex: apprenticeship, technical training, etc)

PhD

MA

BA

3. Which of the following best describes you:

Other (please specify) - Museum researcher

4. Which sub-field(s) of archaeology are you most familiar with?

classical archaeology

5. Please describe experimental archaeology to the best of your ability:

The use of practical techniques and hands-on research to identify and reconstruct ancient technologies, skills, and viewpoints.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Organizing lectures with reconstructions of ancient stone dressing techniques

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

	very applicable	applicable	rarely applicable	not applicable	do not know
wetland archaeology					
underwater archaeology					X
landscape archaeology				X	
osteochondrology		X			

historical archaeology		X
prehistory	X	
classical archaeology	X	
environmental	X	
<i>Comments:</i>		

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools	X				
learning basketry				X	
constructing 'neolithic' beakers		X			
creating a reference collection of butchery cutmarks				X	
building a roundhouse based on excavated sites			X		
making paints from ochre		X			
burying pottery to see how it decays	X				
replicating the production of a bronze adze					X

Comments:

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Active Filter: total

Total: 110

Filtered: 69

Displaying 69 of 69 respondents

Response Type:
Anonymous Response

Custom Value:
empty

Response Started:
Wednesday, August 11, 2010 6:21:16 PM

Collector:
Experiment in Archaeology Survey
(Web Link)

IP Address:
empty

Response Modified:
Wednesday, August 11, 2010 6:28:28 PM

1. Please provide the following information:

University/ College/ Company: - Andean Past

State: - New York

ZIP/Postal Code: - 10280

Country: - USA

2. Training/Education:

MA

MSc

Other (please specify) - AB

3. Which of the following best describes you:

Academic Archaeologist

4. Which sub-field(s) of archaeology are you most familiar with?

prehistory

historical archaeology

environmental archaeology

5. Please describe experimental archaeology to the best of your ability:

Experimental archaeology taphonomy by creating simulacra of archaeological sites and observing them over time. It also may include the recreation of techniques or processes known or believed to be relevant to the archaeological cultures under study.

6. Do you have any experience with experimental archaeology? If yes, please quickly describe your experience:

yes (please specify) - Worked as volunteer at Plymouth Plantation and at Butzer Hill many years ago.

7. How often you cite or reference material from archaeological experiments for your own work or research?

I occasionally cite or reference archaeological experiments

8. How applicable are actualistic experiments in the following archaeological sub-fields:

very applicable applicable rarely applicable not applicable do not know

wetland archaeology

X

underwater archaeology	X
landscape archaeology	X
osteoaarchaeology	X
historical archaeology	X
prehistory	X
classical archaeology	X
environmental	X
<i>Comments:</i>	

9. Have you ever considered undertaking an archaeological experiment, but did not?

No.

10. Do you believe experimental archaeology is an acceptable methodology to use when researching archaeological questions?

Often

11. Please place the following activities in one of the five categories: archaeological experiment pre-experiment learning activity construction archaeology related experience

	archaeology related experience (1)	learning activity (2)	construction (3)	pre- experiment (4)	archaeological experiment (5)
flintknapping a projectile point					X
comparing the utility of stone to metal tools					X
learning basketry					X
constructing 'neolithic' beakers					X
creating a reference collection of butchery cutmarks					X
building a roundhouse based on excavated sites					X
making paints from ochre					X
burying pottery to see how it decays					X
replicating the production of a bronze adze					X
<i>Comments:</i>					

12. If you have any comments/observations/questions concerning the use of experiments in archaeological research, please feel free to include them in the comment box provided.

No Response

Appendix Two: Consent Form

Consent Form FOR INTERVIEWS

Working Title of Research Project

A Historical and Ethnographic Study of the Nature of Experiment in Archaeology

Details of Project

This project is part of a PhD thesis that develops a historiography of the use of experiment in archaeology and ethnography of present practice. The goal of the thesis is to develop a case study of academic practice in archaeology, as well as to analyse the role of experiment in archaeology.

Contact Details

For further information about the research or your interview data, please contact:

Jodi Reeves Flores Department of Archaeology, University of Exeter, Devon UK.

Tel 00 44 (0) 1392 263349, jf260@ex.ac.uk

If you have concerns/questions about the research you would like to discuss with someone else at the University, please contact:

Dr. Alan Outram, Department of Archaeology, University of Exeter, Devon UK.

a.k.outram@exeter.ac.uk

Confidentiality

Interview tapes and transcripts will be held in confidence. They will not be used other than for the purposes described above and third parties will not be allowed access to them (except as may be required by the law). However, if you request it, you will be supplied with a copy of *your* interview transcript so that you can comment on it as you see fit (please give your email below). Your data will be held in accordance with the Data Protection Act.

Anonymity

If requested, interview data will be held and used on an anonymous basis, with no mention of your name, but we will refer to the group of which you are a member, and the project in which you were involved. **Please only tick the appropriate box below, depending on if you wish to be identified, or kept anonymous.**

I **do not wish** for my interview data to be held and used on an anonymous basis: **Tick here**

OR

I wish for my interview data to be held and used on an anonymous basis: **Tick here:**

Consent

I voluntarily agree to participate and to the use of my data for the purposes specified above. I can withdraw consent at any time by contacting the interviewers.

TICK HERE: **DATE**.....

Note: Your contact details are kept separately from your interview data

Name of interviewee:.....

Signature:.....

Email/phone:.....

Signature of researcher.....

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Appendix Twelve: Journal Articles from the *Journal of Archaeological Science*

Date	Primary Author	Title	Location
1974	McAdam	Experimental Reconstruction of a Short Cist	UK
1974	Brothwell	Vitrified Forts in Scotland: A Problem in Interpretation and Primitive Technology	UK
1975	Clarkson	Archaeological Prospecting: A Progress Report	UK
1976	Barbetti	Archaeomagnetic Analyses of Six Glazelian Ceramic Artifacts	UK
1977	Tylecote	Partitioning of Trace Elements Between the Ores, Fluxes, Slags and Metal During the Smelting of Copper	UK
1977	Calder	Survival Properties of Organic Residues through the Human Digestive Tract	New Zealand
1977	Robinson	The Transport of Pollen in the Bracts of Hulled Cereals	UK
1977	Keeley	Microwear Analysis of Experimental Flint Tools: a Test Case	UK
1978	Brink	The Role of Abrasives in the Formation of Lithic Use-wear	Canada
1979	Barbetti	Determination of Ancient Geomagnetic Strengths from Specimens with Multi-Component Magnetizations	UK
1980	Maddin	Distinguishing Artifacts Made of Native Copper	USA
1980	Burton	Making Sense of Waste Flakes: New Methods for Investigating the Technology and Economics Behind Chipped Stone Assemblages	Australia
1981	Dibble	New Experimental Evidence on the Relation Between Percussion Flaking and Flake Variation	USA
1982	Meeks	Gloss and Use-wear Traces on Flint Sickles and Similar Phenomena	UK
1983	Osborne	An Insect Fauna from a Modern Cesspit and its Comparison with Probable Cesspit Assemblages from Archaeological Sites	UK
1983	Robins	A Spectroscopic Study of the Nimrud Ivories	UK
1983	Mansur-	Scanning Electron Microscopy of Dry Hide Working Tools: The	France

	Franchomme	Role of Abrasives and Humidity in Microwear Polish Formation	
1983	Moss	Some Comments on Edge Damage as a Factor in Functional Analysis of Stone Artifacts	UK
1983	Villa	The Interpretation of Stratified Sites: A View from Underground	USA
1984	Shipman	Burnt Bones and Teeth: an Experimental Study of Color, Morphology, Crystal Structure and Shrinkage	USA
1984	Von Endt	Experimental Effects of Bone Size and Temperature on Bone Diagenesis	USA
1984	Unger-Hamilton	The Formation of Use-wear Polish on Flint: Beyond the "Deposit versus Abrasion" Controversy	UK
1985	Lambert	Induced Metal-Ion Exchange in Excavated Human Bone	USA
1985	DeNiro	Effect of Heating on the Stable Carbon and Nitrogen Isotope Ratios of Bone Collagen	USA
1985	Hillman	The Use of Electron Spin Resonance Spectroscopy to Determine the Thermal Histories of Cereal Grains	UK
1985	Kelterborn	Towards Replicating Egyptian Predynastic Flint Knives	Switzerland
1986	Barnatt	Stone Circles and Megalithic Geometry: An Experiment to test Alternative Design Practices	UK
1986	Spanier	Cannibalism in Muricid Snails as a Possible Explanation for Archaeological Findings	Israel
1986	Richter	Experimental Study of Heat Induced -Morphological...	Denmark
1986	Cleghorn	Organizational Structure at The Mauna Kea Adze Quarry Complex, Hawaii	USA
1986	Newcomer	Investigating Microwear Polishes with Blind Tests	UK
1986	Binneman	Experimental Determination of Use Wear on Stone Adzes from Boomplaas Cave, South Africa	South Africa
1986	Sala	Use Wear and Post-depositional Surface Modification: A Word of Caution	UK
1986	Cotterell	Ancient Egyptian Water-clocks: A Reappraisal	Australia
1987	Ambers	Stable Carbon Isotope Ratios and their Relevance to the Determination	UK
1987	Runia	Strontium and Calcium Distribution in Plants: Effect on Palaeodietary	The Netherlands

1987	Henderson	A Curious Clinker	UK
1987	Hoffman	The Eastern Wood Rat (<i>Neotomafloridana</i>) as a Taphonomic Factor in Archaeological Sites	USA
1987	Skibo	The Effects of Water on Processes of Ceramic Abrasion	USA
1988	Blumenschine	An Experimental Model of the Timing of Hominid and Carnivore Influence on Archaeological Bone Assemblages	USA
1988	Olsen	Surface Modification on Bone: Trampling versus Butchery	USA
1988	Johnson	Effects of Firing Temperature on the Fate of Naturally Occurring Organic Matter in Clays	USA
1988	Gurfinkel	A Study of the Feasibility of Detecting Blood Residue on Artifacts	Canada
1989	Kolata	Thermal Analysis of Tiwanaku Raised Field Systems in the Lake Titicaca Basin of Bolivia	USA
1989	Gillespie	Verification of Prehistoric Campfires by ^{40}Ar - ^{39}Ar Analysis	USA
1989	Wenban-Smith	The Use of Canonical Variates for Determination of Biface Manufacturing	UK
1989	Neff	More Observations on the Problem of Tempering in Compositional	USA
1990	Abbott	Proton Magnetometer Investigations of Burned Rock Middens in West-Central Texas: Clues to Formation	USA
1990	Kuhn	A Geometric Index of Reduction for Unifacial Stone Tools	USA
1990	Schiffer	The Influence of Surface Treatment on Heating Effectiveness of Ceramic Vessels	USA
1990	O'Brien	An Experimental Study of the Effects of Salt Erosion on Pottery	USA
1990	Bamforth	Ambiguous Use Traces and Blind Test Results: New Data	USA
1990	Smith	Experiments on the Effects of Charring on Cultivated Grape Seeds	UK
1990	Boardman	Experiments on the Effects of Charring on Cereal Plant Components	UK
1990	Yorston	Simulation of Artefact Movement Due to Cultivation	UK
1991	Rees	An Investigation of the Fractal Properties of Flint Microwear	UK

		Images	
1991	Hather	The Identification of Charred Archaeological Remains of Vegetative Parenchymous Tissue	UK
1991	Marean	Measuring the Post-depositional Destruction of Bone in Archaeological Assemblages	USA
1991	Hare	The Isotopic Composition of Carbon and Nitrogen in Individual Amino Acids Isolated from Modern and Fossil Proteins	USA
1991	Krueger	Exchange of Carbon with Biological Apatite	USA
1991	Grupe	Trace Element Studies on Experimentally Cremated Bone. I. Alteration	Germany
1991	Fullagar	The Role of Silica in Polish Formation	Australia
1992	Marean	Captive Hyaena Bone Choice and Destruction, the Schlepp Effect and Olduvai Archaeofaunas	USA
1993	Kuijit	Tur Imdai Rockshelter, Jordan; Debitage Analysis and Historic Beduin Lithic Technology	USA
1993	Bellomo	A Methodological Approach for Identifying Archaeological Evidence of Fire Resulting from HUMAN Activities	USA
1993	Borradaile	Magnetic and Optical Methods for Detecting the Heat Treatment of Chert	Canada
1993	Domanski	Effect of Heat Treatment on Siliceous Rocks Used in Prehistoric Lithic Technology	Australia
1994	Armour-Chelu	Some Effects of Bioturbation by Earthworms (Oligochaeta) on Archaeological Sites	UK
1994	Liberman	The Biological Basis for Seasonal Increments in Dental Cementum and their Application to Archaeological Research	USA
1994	Cattaneo	Immunological Detection of Albumin in Ancient Human Cremations using ELISA and Monoclonal Antibodies	UK
1994	Silva	“Frits” and Specialized Hide Preparation in the Belgian Early Neolithic	USA
1994	Rosen	Identifying Ancient Irrigation: a New Method Using Opaline Phytoliths from Emmer Wheat	Israel
1995	Crandall	Human Digestive Effects on a Micromammalian Skeleton	USA
1995	Hoard	A Materials-science Approach to Understanding Limestone-	USA

		tempered Pottery from the Midwestern United States	
1995	Westergaard	The Manufacture and Use of Bamboo Tools by Monkeys: Possible Implications for the Development of Material Culture Among East Asian Hominids	USA
1995	Dibble	The Effect of Hammer Mass and Velocity on Flake Mass	USA
1995	Coard	Taphonomy of Some Articulated Skeletal Remains: Transport Potential in an Artificial Environment	UK
1995	Andrews	Experiments in Taphonomy	UK
1995	Stiner	Differential Burning, Recrystallization, and Fragmentation of Archaeological Bone	USA
1995	van Klinken	Experiments on Collagen–Humic Interactions: Speed of Humic Uptake, and Effects of Diverse Chemical Treatments	UK
1995	Cattaneo	Differential Survival of Albumin in Ancient Bone	UK
1995	Downs	Identification of Archaeological Blood Proteins: a Cautionary Note	USA
1995	Courty	Identification of Wheel Throwing on the basis of Ceramic Surface Features and Microfabrics	France
1996	They	Coal used for Fuel at Two Prehistoric Sites in Southern France: Les Canalettes (Mousterian) and Les Usclades (Mesolithic)	France
1996	Nicholson	Bone Degradation, Burial Medium and Species Representation: Debunking the Myths, an Experiment-based Approach	UK
1996	Barlow	Plant Utility Indices: Two Great Basin Examples	USA
1996	Pierret	Calibration and Visualization of Wall-Thickness and Porosity Distributions of Ceramics Using X-radiography and Image Processing	France
1996	Lubinski	Fish Heads, Fish Heads: An Experiment on Differential Bone Preservation in a Salmonid Fish	USA
1996	Tuross	Protein Identification of Blood Residues on Experimental Stone Tools	USA
1996	Fiedel	Blood from Stones? Some Methodological and Interpretive Problems in Blood Residue Analysis	USA
1997	Pelcin	The Formation of Flakes: The Role of Platform Thickness and Exterior Platform Angle in the Production of Flake Initiations and Terminations	USA

1997	Sahnouni	An Experimental Investigation into the Nature of Faceted Limestone “Spheroids” in the Early Palaeolithic	USA
1997	Pelcin	The Effect of Core Surface Morphology on Flake Attributes: Evidence from a Controlled Experiment	USA
1997	Rowney	Detecting Heat Treatment on Silcrete: Experiments with Methods	Australia
1997	van der Veen	Environmental Factors and the Yield Potential of Ancient Wheat Crops	UK
1997	Charters	Simulation Experiments for Determining the Use of Ancient Pottery Vessels: the Behaviour of Epicuticular Leaf Wax During Boiling of a Leafy Vegetable	UK
1998	Butler	Do Digestive Processes Leave Diagnostic Traces on Fish Bones?	USA
1998	Lupo	Experimentally Derived Extraction Rates for Marrow: Implications for Body Part Exploitation Strategies of Plio-Pleistocene Hominid Scavengers	USA
1998	Nicholson	Bone Degradation in a Compost Heap	UK
1998	Trapani	Hydrodynamic Sorting of Avian Skeletal Remains	USA
1998	Capaldo	Simulating the Formation of Dual-Patterned Archaeofaunal Assemblages with Experimental Control Samples	USA
1998	Brown	Bit Wear, Horseback Riding and the Botai Site in Kazakstan	USA
1998	Hardy	Identification of Woodworking on Stone Tools through Residue and Use-Wear Analyses: Experimental Results	USA
1999	Hutchings	Quantification of Fracture Propagation Velocity Employing a Sample of Clovis Channel Flakes	Canada
1999	Coard	One Bone, Two Bones, Wet Bones, Dry Bones: Transport Potentials Under Experimental Conditions	UK
1999	Morgenstein	Considerations of Hydration-rind Dating of Glass Artefacts: Alteration Morphologies and Experimental Evidence of Hydrogeochemical Soil-zone Pore Water Control	UK
1999	Bogaard	A FIBS Approach to the Use of Weed Ecology for the Archaeobotanical Recognition of Crop Rotation Regimes	UK
1999	Eggert	The Use of Sulphur in Hollow Ancient Gold Objects	Germany
1999	Greenfield	The Origins of Metallurgy: Distinguishing Stone from Metal Cut-marks on Bones from Archaeological Sites	Canada
1999	Schick	Continuing Investigations into the Stone Tool-making and Tool-	USA

		using Capabilities of a Bonobo (<i>Pan paniscus</i>)	
1999	Stott	Cholesterol as a New Source of Palaeodietary Information: Experimental Approaches and Archaeological Applications	UK
1999	Adams	Moisture Effects on the Morphology of Ears, Cobs and Kernels of a South-western U.S. Maize (<i>Zea mays</i> L.) Cultivar, and Implications for the Interpretation of Archaeological Maize	USA
1999	Lechtman	The Production of Copper–Arsenic Alloys (Arsenic Bronze) by Cosmelting: Modern Experiment, Ancient Practice	USA
1999	Canti	The Production and Preservation of Faecal Spherulites: Animals, Environment and Taphonomy	UK
1999	Bennett	Thermal Alteration of Buried Bone	USA
1999	Bradbury	Examining Stage and Continuum Models of Flake Debris Analysis: An Experimental Approach	USA
2000	Gose	Palaeomagnetic Studies of Burned Rocks	USA
2000	Lawson	The Experimental Earthwork at Wareham, Dorset after 33 Years: 3. Interaction of Soil Organisms with Buried Materials	UK
2000	Larkin	Using Experimental Studies of Recent Faecal Material to Examine Hyaena Coprolites from the West Runton Freshwater Bed, Norfolk, U.K.	UK
2000	Gustaffsson	Carbonized Cereal Grains and Weed Seeds in Prehistoric Houses—An Experimental Perspective	Sweden
2001	Shanks	Recovery of Protein and DNA Trapped in Stone Tool Microcracks	USA
2001	Shea	Experimental Tests of Middle Palaeolithic Spear Points Using a Calibrated Crossbow	USA
2001	Breuning-Madsen	The Chemical Environment in a Burial Mound Shortly after Construction—An Archaeological–Pedological Experiment	Denmark
2001	Surovell	Standardizing Infra-red Measures of Bone Mineral Crystallinity: an Experimental Approach	USA
2001	Alvarez	The Use of Lithic Artefacts for Making Rock Art Engravings: Observation and Analysis of Use-Wear Traces in Experimental Tools Through Optical Microscopy and SEM	Argentina
2001	Balasse	Detection of Dietary Changes by Intra-tooth Carbon and Nitrogen Isotopic Analysis: An Experimental Study of Dentine Collagen of Cattle (<i>Bos taurus</i>)	France
2001	Smith	Sego Lilies and Prehistoric Foragers: Return Rates, Pit Ovens, and Carbohydrates	USA

2002	Burroni	The Surface Alteration Features of Flint Artefacts as a Record of Environmental Processes	UK
2002	Stewart	Investigations of Paints on Ancestral Puebloan Black-on-white Pottery Using Magnetic and Microanalytic Methods	Canada
2002	Craig	The Removal of Protein from Mineral Surfaces: Implications for Residue Analysis of Archaeological Materials	UK
2002	Beck	Sample Selection for Ceramic Use-alteration Analysis: the Effects of Abrasion on Soot	USA
2002	Clarkson	An Index of Invasiveness for the Measurement of Unifacial and Bifacial Retouch: A Theoretical, Experimental and Archaeological Verification	Australia
2003	Strafford	The parallel-flaked flint daggers of late Neolithic Denmark: an experimental perspective	USA
2003	d'Errico	Possible evidence of bone tool shaping by Swartkrans early hominids	France
2003	Sponheimer	An experimental study of nitrogen flux in llamas: is ¹⁴ N preferentially excreted?	USA
2003	Domínguez-Rodrigo	The use of tooth pits to identify carnivore taxa in tooth-marked archaeofaunas and their relevance to reconstruct hominid carcass processing behaviours	Spain
2003	Koon	A practical approach to the identification of low temperature heated bone using TEM	UK
2003	Pickering	Importance of limb bone shaft fragments in zooarchaeology: a response to "On in situ attrition and vertebrate body part profiles" (2002), by M.C. Stiner	USA
2003	Yerkes	Microwear analysis of early Neolithic (PPNA) axes and bifacial tools from Netiv Hagdud in the Jordan Valley, Israel	USA
2003	Threadgold	Degradation of DNA in artificially charred wheat seeds	UK
2003	Church	Small fragments make small differences in efficiency when rendering grease from fractured artiodactyl bones by boiling	USA
2003	Cochrane	Artefact attribute richness and sample size adequacy	South Africa
2003	Wright	Preservation or destruction of plant remains by carbonization?	USA

2003	Stemp	Documenting Stages of Polish Development on Experimental Stone Tools: Surface Characterization by Fractal Geometry Using UBM Laser Profilometry	Canada
2003	Breuning-Madsen	Preservation Within Log Coffins Before and After Barrow Construction	Denmark
2003	Macphail	The Experimental Earthwork at Wareham, Dorset After 33 Years: Changes to the Buried LFH and Ah Horizons	UK
2004	Wadley	The first residue analysis blind tests: results and lessons learnt	South Africa
2004	Harry	A non-destructive technique for measuring ceramic porosity using liquid nitrogen	USA
2004	Dubreuil	Long-term trends in Natufian subsistence: a use-wear analysis of ground stone tools	France
2004	Hart	Can Cucurbita pepo gourd seeds be made edible?	USA
2004	Ferrio	Estimating grain weight in archaeological cereal crops: a quantitative approach for comparison with current conditions	Spain
2004	Smoke	Post-burial fragmentation of microvertebrate skeletons	USA
2004	Lozano-Ruiz	Cutmarks on fossil human anterior teeth of the Sima de los Huesos Site (Atapuerca, Spain)	Spain
2004	Trueman	Mineralogical and compositional changes in bones exposed on soil surfaces in Amboseli National Park, Kenya: diagenetic mechanisms and the role of sediment pore fluids	UK
2004	Mirti	New developments in the study of ancient pottery by colour measurement	Italy
2004	Braadbaart	Laboratory simulations of the transformation of peas as a result of heat treatment: changes of the physical and chemical properties	Netherlands
2004	Morton	Palaeodietary implications from stable isotopic analysis of residues on prehistoric Ontario ceramics	Canada
2004	Kandel	Modification of ostrich eggs by carnivores and its bearing on the interpretation of archaeological and paleontological finds	Germany
2004	Reber	Identification of maize in absorbed organic residues: a cautionary tale	USA
2004	Lenoble	Fabric of Palaeolithic levels: methods and implications for site formation processes	France

2004	Macephail	Archaeological soil and pollen analysis of experimental floor deposits; with special reference to Butser Ancient Farm, Hampshire, UK	UK
2004	Ownby	Use of scanning electron microscopy to characterize schist as a temper in Hohokam pottery	USA
2005	Kandel	Production sequences of ostrich eggshell beads and settlement dynamics in the Geelbek Dunes of the Western Cape, South Africa	Germany
2005	Evans	The elemental chemistry of lithic microwear: an experiment	UK
2005	Lamb	Seeing red: the use of Congo Red dye to identify cooked and damaged starch grains in archaeological residues	Australia
2005	Shahack-Gross	Geoarchaeology in an urban context: the uses of space in a Phoenician monumental building at Tel Dor (Israel)	Israel
2005	Eren	Defining and measuring reduction in unifacial stone tools	USA
2005	Richter	Selective hunting of pine marten, <i>Martes martes</i> , in Late Mesolithic Denmark	Denmark
2005	Quinn	Backscatter responses and resolution considerations in archaeological side-scan sonar surveys: a control experiment	Ireland
2005	Payne	Simulating the impacts of distal volcanic products upon peatlands in northern Britain: an experimental study on the Moss of Achnacree, Scotland	UK
2005	Hiscock	Experimental evaluation of Kuhn's geometric index of reduction and the flat-flake problem	Australia
2005	Williams	Oxygen isotopes in cellulose identify source water for archaeological maize in the American Southwest	USA
2005	Wright	Flotation samples and some paleoethnobotanical implications	USA
2006	Anderson	Insights from a tribological analysis of the tribulum	France
2006	Ghosh	Can palynomorphs occur in burnt ancient potsherds? An experimental proof	India
2006	Tite	The composition of the soda-rich and mixed alkali plant ashes used in the production of glass	UK
2006	Capel	Red ochre decorations in Spanish Neolithic ceramics: a mineralogical and technological study	Spain
2006	Rots	Blind tests shed light on possibilities and limitations for	Belgium

		identifying stone tool prehension and hafting	
2006	Sergant	The 'invisible' hearths: a contribution to the discernment of Mesolithic non-structured surface hearths	Belgium
2006	Margaritis	Beyond cereals: crop processing and <i>Vitis vinifera</i> L. Ethnography, experiment and charred grape remains from Hellenistic Greece	UK
2006	Pickering	Experimental patterns of hammerstone percussion damage on bones: implications for inferences of carcass processing by humans	USA
2006	Reuther	The use of an improved pRIA technique in the identification of protein residues	USA
2006	Hiller	The use of small-angle X-ray scattering to study archaeological and experimentally altered bone	UK
2006	Botti	Methodological aspects of SANS and TOF neutron diffraction measurements on pottery: the case of Miseno and Cuma	Italy
2006	Martindale	Identifying expedient glass tools from a post-contact Tsimshian village using low power (10e100!) magnification	Canada
2006	Cohen-Ofri	Modern and fossil charcoal: aspects of structure and diagenesis	Israel
2007	Faith	Carnivore competition, bone destruction, and bone density	USA
2007	Hanson	Examining histology to identify burned bone	South Africa
2007	Tite	A technological study of ancient faience from Egypt	UK
2007	Backhouse	Where were the hearths: an experimental investigation of the archaeological signature of prehistoric fire technology in the alluvial gravels of the Southern Plains	USA
2007	Lillie	The in situ preservation of archaeological remains: using lysimeters to assess the impacts of saturation and seasonality	UK
2007	Méry	A pottery workshop with flint tools on blades knapped with copper at Nausharo (Indus civilisation, ca. 2500 BC)	France
2007	Werts	Estimation of temperatures beneath archaeological campfires using carbon stable isotope composition of soil organic matter	USA
2007	Machin	Why are some handaxes symmetrical? Testing the influence of handaxe morphology on butchery effectiveness	UK
2007	Bar-Oz	Gazelle bone marrow yields and Epipalaeolithic carcass exploitation strategies in the southern Levant	Israel

2007	Lerner	Lithic raw material physical properties and use-wear accrual	Canada
2007	Hart	Paleodietary implications from stable carbon isotope analysis of experimental cooking residues	USA
2007	West	Differentiating bamboo from stone tool cut marks in the zooarchaeological record, with a discussion on the use of bamboo knives	USA
2007	Smith	Experimental evidence for lithic projectile injuries: improving identification of an under-recognised phenomenon	UK
2007	Bogaard	The impact of manuring on nitrogen isotope ratios in cereals: archaeological implications for reconstruction of diet and crop management practices	UK
2007	Dewbury	Relative frequency of butchering cutmarks produced by obsidian and flint: an experimental approach	USA
2007	Banard	Mixed results of seven methods for organic residue analysis applied to one vessel with the residue of a known foodstuff	USA
2007	Gordon	Late horizon silver, copper, and tin from Machu Picchu, Peru	USA
2007	Lombard	The morphological identification of micro-residues on stone tools using light microscopy: progress and difficulties based on blind tests	South Africa
2008	Friend	Experimentally produced glass compared with that occurring at The Torr, NW Scotland, UK: vitrification through biotite melting	UK
2008	Sievers	Going underground: experimental carbonization of fruiting structures under hearths	South Africa
2008	d'Errico	Possible shell beads from the Middle Stone Age layers of Sibudu Cave, South Africa	France
2008	Bird	X-ray microtomographic imaging of charcoal	UK
2008	Olson	Stone Age fishhooks – how were they dimensioned? Morphology, strength test, and breakage pattern of Neolithic bone fishhooks from Ajvide, Gotland, Sweden	Sweden
2008	Letourneux	Hunting lesions caused by osseous projectile points: experimental results and archaeological implications	Germany
2008	Braadbaart	Morphological, chemical and physical changes during charcoalification of wood and its relevance to archaeological contexts	Netherlands
2008	Lombard	Hunting with Howiesons Poort segments: pilot experimental study and the functional interpretation of archaeological tools	South Africa

2008	Tanimoto	Interactions between silicate and salt melts in LBA glassmaking	UK
2008	Mercieca	Experimental insights into alternative strategies of lithic heat treatment	Australia
2008	Geib	Palynology and archaeological inference: bridging the gap between pollen washes and past behavior	USA
2008	Braun	Oldowan reduction sequences: methodological considerations	South Africa
2008	Collins	Experimental investigations into edge performance and its implications for stone artefact reduction modelling	Australia
2008	Evans	Laser scanning confocal microscopy: a potential technique for the study of lithic microwear	UK
2008	Crow	Mineral weathering in forest soils and its relevance to the preservation of the buried archaeological resource	UK
2008	Lewia	Identifying sword marks on bone: criteria for distinguishing between cut marks made by different classes of bladed weapons	UK
2008	Schurr	Stable carbon- and nitrogen-isotope ratios and electron spin resonance (ESR) g-values of charred bones: changes with heating and a critical evaluation of the utility of g-values for reconstructing thermal history and original isotope ratios	USA
2008	Hamon	Functional analysis of stone grinding and polishing tools from the earliest Neolithic of north-western Europe	France
2008	Bello	A new method for the quantitative analysis of cutmark micromorphology	UK
2008	Backwell	Middle Stone Age bone tools from the Howiesons Poort layers, Sibudu Cave, South Africa	South Africa
2008	Blasco	A new element of trampling: an experimental application on the Level XII faunal record of Bolomor Cave (Valencia, Spain)	Spain
2008	Berg	Looking through pots: recent advances in ceramics X-radiography	UK
2008	Marwick	What attributes are important for the measurement of assemblage reduction intensity? Results from an experimental stone artefact assemblage with relevance to the Hoabinhian of mainland Southeast Asia	Australia
2008	Braun	An experimental investigation of cut mark production and stone tool attrition	South Africa
2008	Willis	Does butchering fish leave cut marks?	USA
2008	Björdal	Reburial of shipwrecks in marine sediments: a long-term study on wood degradation	Sweden

2008	Chu	Differentiating between anthropogenic calcite in plaster, ash and natural calcite using infrared spectroscopy: implications in archaeology	Israel
2008	Christidou	An application of micro-wear analysis to bone experimentally worked using bronze tools	France
2008	Pickering	Cutmarks and hominid handedness	USA
2008	Abbott	The process, location, and history of Hohokam Buff ware production: some experimental and analytical results	USA
2008	Lenoble	Solifluction-induced modifications of archaeological levels: simulation based on experimental data from a modern periglacial slope and application to French Palaeolithic sites	France
2009	Domínguez-Rodrigo	A new protocol to differentiate trampling marks from butchery cut marks	Spain
2009	Namdar	The contents of unusual cone-shaped vessels (cornets) from the Chalcolithic of the southern Levant	Israel
2009	Seinfeld	Determining Olmec maize use through bulk stable carbon isotope analysis	USA
2009	Delaney-Rivera	Pits and pitfalls: taxonomic variability and patterning in tooth mark dimensions	USA
2009	Heaton	Towards the application of desorption electrospray ionisation mass spectrometry (DESI-MS) to the analysis of ancient proteins from artefacts	UK
2009	Hart	Non-linear relationship between bulk $\delta^{13}\text{C}$ and percent maize in carbonized cooking residues and the potential of false-negatives in detecting maize	USA
2009	Bello	Quantitative micromorphological analyses of cut marks produced by ancient and modern handaxes	UK
2009	Dibble	Introducing a new experimental design for controlled studies of flake formation: results for exterior platform angle, platform depth, angle of blow, velocity, and force	USA
2009	Sisk	Experimental use and quantitative performance analysis of triangular flakes (Levallois points) used as arrowheads	USA
2009	Braadbaart	Preservation potential of charcoal in alkaline environments: an experimental approach and implications for the archaeological record	Netherlands
2009	Warinner	Alkaline cooking and stable isotope tissue-diet spacing in swine:	USA

		archaeological implications	
2009	Blakelock	Slag inclusions in iron objects and the quest for provenance: an experiment and a case study	UK
2009	d'Errico	Assessing the function of early hominin bone tools	France
2009	Domanski	Heat treatment of Polish flints	Australia
2009	Johnson	Bison butchery at Cooper, a Folsom site on the Southern Plains	USA
2009	Sterba	The influence of different tempers on the composition of pottery	Austria
2009	Braun	Raw material quality and Oldowan hominin toolstone preferences: evidence from Kanjera South, Kenya	South Africa
2009	Eren	Kuhn's Geometric Index of Unifacial Stone Tool Reduction (GIUR): does it measure missing flake mass?	USA
2009	Vega	New experimental data on the distance of sling projectiles	USA
2009	Galan	A new experimental study on percussion marks and notches and their bearing on the interpretation of hammerstone-broken faunal assemblages	Spain
2009	Romanus	Wine and olive oil permeation in pitched and non-pitched ceramics: relation with results from archaeological amphorae from Sagalassos, Turkey	Belgium
2009	Thompson	The application of a new method of Fourier Transform Infrared Spectroscopy to the analysis of burned bone	UK
2009	Henry	Changes in starch grain morphologies from cooking	USA
2009	Tite	Colour in Minoan faience	UK
2009	Mighall	Using mineral magnetism to characterise ironworking and to detect its evidence in peat bogs	UK
2009	Hjulström	Identification of activity area signatures in a reconstructed Iron Age house by combining element and lipid analyses of sediments	Sweden
2010	Moskal-del Hoyo	Preservation of fungi in archaeological charcoal	Spain
2010	Asmussen	In a nutshell: the identification and archaeological application of experimentally defined correlates of <i>Macrozamia</i> seed processing	Australia
2010	Jennings	A biface and blade core efficiency experiment: implications for Early Paleoindian technological organization	USA
2010	Lebon	New parameters for the characterization of diagenetic alterations and heat-induced changes of fossil bone mineral using Fourier	France

		transform infrared spectrometry	
2010	Darmark	Measuring skill in the production of bifacial pressure flaked points: a multivariate approach using the flip-test	Sweden
2010	de Juana	Taphonomic identification of cut marks made with lithic handaxes: an experimental study	Spain
2010	Eren	Experimental Examination of Animal Trampling Effects on Artifact Movement in Dry and Water Saturated Substrates: A Test Case from South India	USA
2010	Geribàs	What novice knappers have to learn to become expert stone toolmakers	Spain
2010	Beyin	Use-wear analysis of obsidian artifacts from Later Stone Age shell midden sites on the Red Sea Coast of Eritrea, with experimental results	USA
2010	Ascough	Charcoal reflectance measurements: implications for structural characterization and assessment of diagenetic alteration	UK
2010	McParland	Is vitrification in charcoal a result of high temperature burning of wood?	UK
2010	Stevens	Practical quantitative lithic use-wear analysis using multiple classifiers	USA
2010	Goodale	Sickle blade life-history and the transition to agriculture: an early Neolithic case study from Southwest Asia	USA
2010	Tallavaara	How flakes shatter: a critical evaluation of quartz fracture analysis	Finland
2010	Lin	The application of 3D laser scanning technology to the assessment of ordinal and mechanical cortex quantification in lithic analysis	New Zealand/USA
2010	Pante	Fluvial transport of bovid long bones fragmented by the feeding activities of hominins and carnivores	USA
2010	Marocchi	Vitrification of basalt orthostats and mud building components from Tilmen Höyük (south-eastern Turkey): an experimental and geoarchaeological approach	Italy
2010	Messner	Plant processing strategies and their affect upon starch grain survival when rendering <i>Peltandra virginica</i> (L.) Kunth, Araceae edible	USA
2010	Yaroshevich	Design and performance of microlith implemented projectiles during the Middle and the Late Epipaleolithic of the Levant: experimental and archaeological evidence	Israel
2010	Laughlin	Experimental analysis of the practical limits of lithic refitting	USA

2010	Wadley	Cemented ash as a receptacle or work surface for ochre powder production at Sibudu, South Africa, 58,000 years ago	South Africa
2010	Hodgskiss	Identifying grinding, scoring and rubbing use-wear on experimental ochre pieces	South Africa
2010	Gromer	Technical Data and Experiments on Corded Ware	Austria
2010	Liu	A functional analysis of grinding stones from an early holocene site at Donghulin, North China	Australia
2010	Gaudzinski-Windheuser	Testing heterogeneity in faunal assemblages from archaeological sites. Tumbling and trampling experiments at the early Middle Pleistocene site of Gesher Benot Ya'aqov (Israel)	Germany
2010	Regev	Iron Age Hydraulic Plaster from Tell Es-Safi/Gath, Israel	Israel
2010	Holst	Hazelnut economy of early Holocene huntergatherers: a case study from Mesolithic Duvensee, northern Germany	Germany
2010	Tite	The technological development of stonepaste ceramics from the Islamic Middle East	UK
2010	Villagran	Experimental Micromorphology in Tierra del Fuego (Argentina): building a reference collection for the study of shell middens in cold climates	Brazil
2010	Gong	Investigation of ancient noodles, cakes, and millet at the Subeixi Site, Xinjiang, China	China

Appendix Thirteen: Journal Articles from *Antiquity*

Date	Primary Author	Title	Location
1929	Liddell	New Light on an Old Problem	UK
1930	Martin	Dew-Ponds	UK
1930	Curwen	Prehistoric Flint Sickles	UK
1931	Mackay	Further links between Ancient Sind, Sumer and elsewhere	UK
1938	Curwen	Early Agriculture in Denmark	UK
1940	Curwen	The white patination of black flint	UK
1941	Curwen	More about Querns	UK
1943	Curwen	The efficiency of a flint sickle	UK
1960	Aberg	Ploughing experiments with reconstructed donneruplund ard	UK
1961	Ashbee	An Experiment in Field Archaeology	UK
1965	Dimbleby	Notes and News: Overton Down Experimental Earthwork	UK
1966	Ryder	Can One Cook in a Skin?	UK
1967	Bowen	Corn Storage in Antiquity	UK
1968	Charles	The First Sheffield Plate	UK
1969	Ryder	Paunch cooking	UK
1970	Bruce-Mitford	The Sutton Hoo Lyre, Beowulf, and the origins of the Frame Harp	France
1970	Slater	Archaeological Classification by Metal Analysis	UK
1971	Tilley	An experiment under oars	India
1971	Le Roux	A stone axe-factory in Brittany	UK
1975	Hegde	The painted Grey Ware of India	UK
1979	Dortch	Australia's oldest known ornaments	Australia
1980	O'Brien	An experiment in pottery firing	USA
1981	Littauer	Early stirrups	Ireland
1983	Rynne	Why the ribs inside socketed axeheads?	UK
1987	Coates	Authenticity in the replica Athenian trieres	UK

1988	Bergman	Experimental archery: projectile velocities and comparison of bow performances	UK
1988	Morrison	The second British sea trials of the reconstructed trireme, 20 July–5 August 1988	UK
1988	Robinson	A Roman Iron Age funerary deposit from PrÆstestien, southwestern Jutland, and the early cultivation of rye in Denmark	Denmark
1989	Stocks	Ancient factory mass-production techniques: indications of large-scale stone bead manufacture during the Egyptian New Kingdom Period	UK
1990	Hilliam	Dendrochronology of the English Neolithic	UK
1990	Yamamoto	Space-time analysis of raw material utilization for stone implements of the Jomon culture in Japan	Japan
1991	Kehoe	No possible, probable shadow of doubt	USA
1992	Taylor	Flag Fen: the wood	UK
1992	Pavel	Raising the Stonehenge lintels in Czechoslovakia	Czechoslovakia
1993	Stocks	Making stone vessels in ancient Mesopotamia and Egypt	UK
1995	Dennell	Comment on Perda Furada	USA
1995	Leach	Additional comments on blood residue analysis in archaeology	UK
1995	Eisele	Survival and detection of blood residues on stone tools	USA
1995	Anthony	Horse, wagon & chariot: Indo-European languages and archaeology	USA
1996	Steinberg	Plough zone sampling in Denmark: isolation and interpreting site signatures from disturbed contexts	USA
1997	Sim	Experiments of produce Roman styli by forging and machining	USA
1997	Hutchings	Spear thrower performance: ethnographic and experimental research	UK
1997	Stocks	Derivation of ancient Egyptian faience core and glaze materials	Canada
1997	Croes	The North-Central cultural dichotomy on the Northwest Coast of North America: its evolution as suggested by wet-site basketry and wooden fish-hooks	UK
1998	Ashbee	The Experimental Earthworks Revisited	UK
1998	Theunissen	Headroom and human trampling: cave ceiling-height determines the spatial patterning of stone artefacts at Petzkes Cave, northern New South Wales	UK
1998	Lu	Some botanical characteristics of green foxtail (<i>Setaria viridis</i>) and harvesting experiments on the grass	Australia
1998	Stafford	In search of Hindsgavl: experiments in the production of Neolithic Danish flint daggers	Australia
1999	Waateringe	The curing of hides and skins in European prehistory	Netherlands

1999	Bull	Muck 'n' molecules: organic geochemical methods for detecting ancient manuring	UK
1999	Stocks	Stone sarcophagus manufacture in ancient Egypt	UK
1999	Stapert	Flint and pyrite: making fire in the Stone Age	Netherlands
1999	Watson	Architecture and sound: an acoustic analysis of megalithic monuments in prehistoric Britain	Copenhagen
2000	Anthony	Eneolithic horse exploitation in the Eurasian steppes: diet, ritual and riding	USA
2000	Larsson	The passage of axes: fire transformation of flint objects in the Neolithic of southern Sweden	Sweden
2000	Sax	The introduction of the lapidary engraving wheel in Mesopotamia	UK
2000	Lokeren	Experimental reconstruction of the casting of copper 'oxide' ingots	Greece
2001	Johnston	Were ancient seals secure?	USA
2001	Finney	Voyage to Polynesia's end	USA
2001	Stocks	Testing ancient Egyptian granite-working methods in Aswan, Upper Egypt	UK
2001	Holst	The South Scandinavian barrows with well-preserved oak-log coffins	Denmark
2001	Osenton	Megalithic engineering techniques: experiments using axe-based technology	UK
2003	Stocks	Immutable laws of friction: preparing and fitting stone blocks into the Great Pyramid of Giza	UK
2003	Rots	Towards an understanding of hafting: the macro- and microscopic evidence	Belgium
2003	Cartwright	Grapes or raisins? An early Bronze Age larder under the microscope	UK
2004	Moore	The Tula Adze: manufacture and purpose	Australia
2004	Nadal	Saw-toothed sickles and bone anvils: a medieval technique from Spain	Spain
2005	Copley	Processing of milk products in pottery vessels through British prehistory	UK
2005	Craig	Did the first farmers of central and eastern Europe produce dairy foods?	UK
2006	Sharpe	Evidence for cave marking by Palaeolithic children	USA
2007	O'Flaherty	A weapon of choice – experiments with a replica Irish Early Bronze Age halberd	Ireland
2007	Karpowicz	Ottoman bows – an assessment of draw weight, performance and tactical use	Canada
2009	Waguespack	Making a point: wood- versus stone-tipped projectiles	USA

2009	Shipton	Stone tool experiments and reduction methods at the Acheulean site of Isampur Quarry, India	UK
2009	Dubreull	Ochre and hide-working at a Natufian burial place	Canada
2009	Malloy	For Gods or men? A reappraisal of the function of European Bronze Age shields	Ireland
2009	Rifkin	Engraved art and acoustic resonance: exploring ritual and sound in north-western South Africa	South Africa
2010	Goulder	Administrators' bread: an experiment-based re-assessment of the functional and cultural role of the Uruk bevel-rim bowl	UK
2010	Milner	Chert hoes as digging tools	USA
2010	Liu	What did grinding stones grind? New light on Early Neolithic subsistence economy in the Middle Yellow River Valley, China	Australia
2010	Mélard	Gravettian painting and associated activity at Le Moulin de Laguenay (Lissac-sur-Couze, Corrèze)	France
2010	Wilde	On the origin and significance of microburins: an experimental approach	Belgium

Appendix Fourteen: Journal Articles from *American Antiquity*

Date	Primary Author	Title	Location
1936	Moorehead	Credit to Previous Investigators	USA
1936	Tyzzar	The 'Simple Bone Point' of the Shell-Heaps of the Northeastern Algonkian Area and Its Probable Significance	USA
1939	Farmer	Lightning Spalling	USA
1939	Colton	The Reducing Atmosphere and Oxidizing Atmosphere in Prehistoric Southwestern Ceramics	USA
1943	Leechman	Two New Cape Dorset Sites	Canada
1944	Schroeder	A Prehistoric Method of Collecting Water	USA
1945	Bixby	Flint Chipping	USA
1946	Fowler	The Hoe Complex of the Connecticut Valley	USA
1947	Watson	Ciudad Real: A Guaraní-Spanish Site on the Alto Parana River	USA
1951	Cosner	Arrowshaft-Straightening with a Grooved Stone	USA
1956	Cosner	The 'Stone Scraper' and Arrow 'Wrench'	USA
1960	Peets	Experiments in the Use of Atlatl Weights	USA
1960	Bergsoe	Aboriginal Gilding in Panama	Denmark
1960	Kurtz	Reliability of Identification of Fossil Pollen as Corn	USA
1960	Littmann	Ancient Mesoamerican Mortars, Plasters, and Stuccos: The Use of Bark Extracts in Lime Plasters	Mexico
1960	Evans	Part II, An Archaeological Evaluation of the Method	USA
1961	Quimby	Cord Marking versus Fabric Impressing of Woodland Pottery	USA
1962	Sonnenfeld	Interpreting the Function of Primitive Implements	USA
1963	Mewhinney	Oddities of Flint	USA
1963	Weaver	Technological Analysis of Prehistoric Lower Mississippi Ceramic Materials: A Preliminary Report	USA
1964	Brown	Column Chromatography and the Possibility of Carbon-Lens Migration	USA
1964	Chilcott	The Construction and Uses of a Laboratory Archaeological Site	USA
1964	Long	Cire Perdue Copper Casting in Pre-Columbian Mexico: An Experimental Approach	USA

1964	Medvedev	The Place of the Culture of Verkholskaia Gora in the Archaeological Sequence of the Baikal Region	USSR
1965	Peets	What, Really, Were Gorgets?	USA
1967	Hayden	A Summary Prehistory and History of the Sierra Pinacate, Sonora	USA
1968	Crabtree	Mesoamerican Polyhedral Cores and Prismatic Blades	USA
1969	Hayden	Gyratory Crushers of the Sierra Pinacate, Sonora	USA
1970	Ascher	CUES I: Design and Construction of an Experimental Archaeological Structure	USA
1970	Ubelaker	Arikara Glassworking Techniques at Leavenworth and Sully Sites	USA
1971	Puleston	An Experimental Approach to the Function of Classic Maya Chultuns	USA
1971	Saraydar	A Quantitative Comparison of Efficiency between a Stone Axe and a Steel Axe	USA
1972	Sadek-Kooros	Primitive Bone Fracturing: A Method of Research	USA
1972	Ortner	The Effect of Temperature on Protein Decay in Bone: Its Significance in Nitrogen Dating of Archaeological Specimens	USA
1973	Saraydar	Experimental Archaeology: A New Outlook	USA
1973	Sheets	Edge Abrasion during Biface Manufacture	USA
1973	Hester	A Functional Analysis of 'Clear Fork' Artifacts from the Rio Grande Plain, Texas	USA
1975	Speth	Miscellaneous Studies in Hard-Hammer Percussion Flaking: The Effects of Oblique Impact	USA
1976	Sollberger	Prismatic Blade Replication	USA
1977	Walker	An Experimental Study of the Morphological Characteristics of Tool Marks	USA
1978	Flenniken	Reevaluation of the Lindenmeier Folsom: A Replication Experiment in Lithic Technology	USA
1978	Hill	Individuals and Their Artifacts: An Experimental Study in Archaeology	USA
1978	Walker	Butchering and Stone Tool Function	USA
1979	Limp	An Economic Evaluation of the Potential of Fish Utilization in Riverine Environments	USA
1979	Riley	Field Systems and Frost Drainage in the Prehistoric Agriculture of the Upper Great Lakes	USA
1979	Clark	Electron Microprobe Analysis of Weathered Florida Chert	USA
1979	Dunn	Ceramic Depictions of Maize: A Basis for Classification of Prehistoric Races	USA

1980	Bleed	An Objective Test of the Effects of Heat Treatment of Flakeable Stone	USA
1981	Hammond	Child's Play: A Distorting Factor in Archaeological Distribution	USA
1982	Clark	Manufacture of Mesoamerican Prismatic Blades: An Alternative Technique	USA
1983	Bowers	Flake Dispersal Experiments: Noncultural Transformation of the Archaeological Record	USA
1984	Schindler	Thermal Alteration of Bald Eagle Jasper: Authors' Reply to Patterson	USA
1984	Bischoff	A TL/ESR Study of the Hearth Feature at the Calico Archaeological Site, California	USA
1985	Gifford-Gonzalez	The Third Dimension in Site Structure: An Experiment in Trampling and Vertical Dispersal	USA
1985	Gould	Lithic Procurement in Central Australia: A Closer Look at Binford's Idea of Embeddedness in Archaeology	USA
1986	Flenniken	Morphological Projectile Point Typology: Replication Experimentation and Technological Analysis	USA/Australia
1986	Dixon	Broken Canines from Alaskan Cave Deposits: Re-Evaluating Evidence for Domesticated Dog and Early Humans in Alaska	USA
1987	Odell	Estimating Tillage Effects on Artifact Distributions	USA
1988	Madsen	Hunting Hoppers	USA
1989	Skibo	Organic-Tempered Pottery: An Experimental Study	USA
1989	Feathers	Effects of Temper on Strength of Ceramics: Response to Bronitsky and Hame	USA
1989	macKinnon	Prehispanic Saltmaking in Belize: New Evidence	USA
1989	Frison	Experimental Use of Clovis Weaponry and Tools on African Elephants	USA
1990	Patterson	Characteristics of Bifacial-Reduction Flake-Size Distribution	USA
1990	Anawalt	The Emperors' Cloak: Aztec Pomp, Toltec Circumstances	USA
1990	Hatch	Hopewell Obsidian Studies: Behavioral Implications of Recent Sourcing and Dating Research	USA
1990	Young	On the Macroscopic Identification of Used Flakes	USA
1991	Nielsen	Trampling the Archaeological Record: An Experimental Study	USA
1991	Marean	Impact of Carnivore Ravaging on Zooarchaeological Measures of Element Abundance	USA/Argentina
1991	Martin	Assessing Feature Function and Spatial Patterning of Artifacts with Geophysical Remote- Sensing Data	USA
1992	Torbenson	Punctured Human Bones of the Laurel Culture from Smith Mound Four, Minnesota	USA

1994	Schiffer	New Perspectives on Experimental Archaeology: Surface Treatments and Thermal Response of the Clay Cooking Pot	USA
1994	Marean	Intrasite Spatial Analysis of Bone: Subtracting the Effect of Secondary Carnivore Consumers	USA
1994	LeMoine	Use Wear on Bone and Antler Tools from the Mackenzie Delta, Northwest Territories	USA
1994	Capaldo	A Quantitative Diagnosis of Notches Made by Hammerstone Percussion and Carnivore Gnawing on Bovid Long Bones	Canada
1996	Will	Stone Artifact Movement on Impoundment Shorelines: A Case Study from Maine	USA
1996	Morrow	Bigger is Better: Comments on Kuhn's Formal Approach to Mobile Tool Kits	USA
1997	Chrisman	Reply to Dincauze	USA
1998	McBrearty	Tools Underfoot: Human Trampling as an Agent of Lithic Artifact Edge Modification	USA
1999	Adams	Refocusing the Role of Food-Grinding Tools as Correlates for Subsistence Strategies in the U.S. Southwest	USA
2000	Billman	Cannibalism, Warfare, and Drought in the Mesa Verde Region during the Twelfth Century A.D.	USA
2002	Beck	The Ball-on-Three-Ball Test for Tensile Strength: Refined Methodology and Results for Three Hohokam Ceramic Types	USA
2002	Abe	The Analysis of Cutmarks on Archaeofauna: A Review and Critique of Quantification Procedures, and a New Image-Analysis GIS Approach	USA
2003	Crown	Modifying Pottery and Kivas at Chaco: Pentimento, Restoration, or Renewal?	USA
2003	Hart	Phytolith Evidence for Early Maize (<i>Zea Mays</i>) in the Northern Finger Lakes Region of New York	New Zealand
2004	Hart	Do Cucurbita pepo Gourds Float Fishnets?	USA
2004	Cassidy	Boats, Bones, and Biface Bias: The Early Holocene Mariners of Eel Point, San Clemente Island, California	USA
2005	Dibble	The Measurement and Interpretation of Cortex in Lithic Assemblages	USA
2005	Dominguez	Beyond Water Harvesting: A Soil Hydrology Perspective on Traditional Southwestern Agricultural Technology	USA
2006	Cheshier	Projectile Point Shape and Durability: The Effect of Thickness: Length	USA
2006	Andrefsky	Experimental and Archaeological Verification of an Index of Retouch for Hafted Bifaces	USA
2007	Prasciunas	Bifacial Cores and Flake Production Efficiency: An Experimental Test	USA

		of Technological Assumptions	
2007	Lopinot	Trampling Experiments in the Search for the Earliest Americans	USA
2008	Mesoudi	The Cultural Transmission of Great Basin Projectile-Point Technology I: An Experimental Simulation	USA
2008	Douglass	An Assessment and Archaeological Application of Cortex Measurement in Lithic Assemblages	USA
2010	Dixon	'Men, Women and Children Starving': Archaeology of the Donner Family Camp	USA

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