The Constructed Past

Experimental archaeology, education and the public



Edited by Peter G. Stone and Philippe G. Planel

ROUTLEDGE



36

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THE CONSTRUCTED PAST

We can never know with certainty what the past was like: instead we reconstruct images of what we think it may have been like using the fragmentary remains we have, but influenced to a degree by our cultural perceptions and norms. Those who present the past to others have the responsibility to ensure that they represent the most likely reality of the past, and that the representations are not conscious manipulations of the past created for particular contemporary causes.

This edited collection presents a group of powerful images of the past, termed in the book 'construction sites'. At these sites, full scale, three-dimensional images for the past have been created for a variety of reasons including archaeological experimentation, tourism and education. Some sites attempt little more than construction of unfurnished buildings, others introduce furniture, other artefacts and human interpreters to recreate a more detailed image of the past. The various case studies explore the relationship between the sites' aims and discuss their constant friction. Contributions frankly discuss the problems and mistakes experienced with reconstruction, encourage the need for on-going experimentation and examine the various uses of the sites; political, economical and educational.

The Constructed Past affords the most detailed and extensive discussion of such sites so far attempted, and will provide a valuable reference tool for archaeologists and professionals in heritage management.

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Experimental archaeology, education and the public

Edited by

Peter G.Stone and Philippe G.Planel



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Preface

The idea for this book was first suggested during a weekend course held in 1992 at the Ancient Technology Centre, Cranborne, UK (see Keen, Chapter 16). The course offered those interested in ancient technology the opportunity to meet and learn from each other during a weekend of mainly practical activity and experimentation. A number of course members were school teachers—there either to develop ideas for their own teaching or for their own interest. It was an extremely successful course and everyone left hoping to return for similar events in the future. However, during general discussion it became clear that a number of participants were concerned about the proliferation of 'reconstructed' sites (see Introduction) and their educational and presentational philosophies and values. Much of this concern was rooted in the conscious—and perhaps subconscious—messages that participants felt were being presented by such sites. Were some sites perhaps somehow 'failing' or misinforming both visiting formal education groups and more general visitors by presenting stereotyped images of a past well understood and fixed in a specified position, some distance behind the contemporary world along a linear path of progress? After all, so the discussion went, the very basis of experimental archaeology is that it is experimental and that we will never know with 100 per cent certainty that 'this is what it was like'. Discussion also focused on the specifically formal educational uses of such sites and how—if at all—the methodology of archaeological experimentation matched, elaborated and extended current teaching methodology and practice. A few participants raised concerns regarding the political uses of such sites. Similar discussions took place—and concerns aired at a second meeting on experimental archaeology and reconstruction sites held at Aubechies, Belgium in 1993.

As a result of these meetings we agreed to organise a sub-theme on The multifaceted aims of reconstruction sites: archaeological evidence, reconstruction of sites, education and public awareness at the World Archaeological Congress 3 (WAC) held in New Delhi in December 1994. The theme brought together colleagues from both the previous meetings as well as many whom we approached specifically to contribute to the

xx PREFACE

broader WAC debate. While a number of the contributors to the book were unable to attend WAC-3 in person, most of the contributions that follow were presented as pre-circulated papers for the Congress. The majority of contributions published here have therefore benefited from the comments of colleagues at WAC-3.

We would like to thank all contributors for their patience and help over the seemingly endless time that it has taken to finally compile this book and hope that they, and the reader, find the result worth the wait. More specifically we should like to thank Jane Hubert for her comments on the introduction and Peter Ucko for his unfailing support and work as Series Editor. Finally, we should like to thank Genevieve and Chris, without whose support and understanding this book would not have been produced.

Peter G.Stone, Newcastle Philippe G.Planel, Marignac-en-Diois

Introduction

PETER G.STONE AND PHILIPPE G.PLANEL

RE-CONSTRUCTION VS CONSTRUCTION

As archaeologists, we do not believe that there is one past, knowable and acceptable to everyone, but rather we acknowledge that there are many interpretations of the past to which different individuals or groups—for a wide range of different reasons choose to subscribe. For archaeologists, how valid any particular interpretation is obviously depends on how it fits the ever-increasing body of archaeological (and other Western science-based) knowledge. As interpreters, we also believe we have an obligation to base our work on the most up-to-date information and data available. To do anything else would be to allow oneself intentionally to 'create' a past that has little bearing on what is most likely to be true—as, for example, did the white colonial interpretation of Great Zimbabwe that denied even the possibility that the complex had been built by the indigenous population (Garlake 1973). However, as archaeologists and interpreters, we must also be aware that there are a number of interpretations of the past that are not reliant upon archaeological (or other, Western science-based) data, but on other, for example, 'traditional' or indigenous, information and data. As teachers, we believe that the potential for such a'multiplicity of pasts' provides us with a tremendous educational tool which, if used well, forces students to confront evidence (which may well be conflicting) in a systematic and rigorous way (see also MacKenzie and Stone 1994; Stone 1994). We also accept that if carried out sloppily—or, worse still, with intentional bias—such data can be extremely dangerous as it can be used to support racist or other misinterpretations of the past as shown in the example of colonial Rhodesia above.

The past in fact cannot be *re*-constructed as it actually happened, but rather it is continually *constructed* by individuals or groups who, for whatever reason, choose to interact with it. Those constructing such pasts work within their own particular frameworks created by their own social position and *mores*—in our own case, essentially the Western scientific tradition. It is a particular

characteristic of this tradition as we draw to the end of the millennium that most adherents believe it crucial that those producing such 'constructed pasts' accept and acknowledge that they are working within their own ethnocentric and intellectual framework, for to do otherwise confers a spurious legitimacy on their view of the past that can all too frequently be passed on as *fact* to those for whom the interpretation is intended (see, for example, Hewison 1987; Bond and Gilliam 1994; Layton 1994a, 1994b; Stone and MacKenzie 1994; Stone and Molyneaux 1994; McManus 1996). On the other hand, others, for example many traditional indigenous peoples, appear not to be as concerned with this issue as they rely upon a deeply held belief that theirs is the *correct* way to view the world and, by implication, the past. Also, some interpreters of the past intentionally mislead or misinform for their own particular reasons (see, for example, discussions in Layton 1994b; Barlow 1994; Gawe and Meli 1994; Holland 1994; Bond and Gilliam 1994; Witz and Hamilton 1994; Blockley, Chapter 1, this volume; Schmidt, Chapter 9, this volume). One role of archaeologists, interpreters and educators is to expose their audiences to the concept of other ways of interpreting the past while at the same time identifying and exposing any deliberate misuse of the past.

THE SCOPE OF THIS BOOK

This book is specifically about created places—often referred to as 'reconstruction sites'—that have been constructed to interpret and/or study the past. All have been constructed using archaeological evidence. As such, it relates to 'the constructed past' in two ways: through the interpretation (construction) of the past, as discussed above, and through the physical creation (construction) of buildings considered to reflect that past. Some contributors use the term 'construction site' or 'model', others 'reconstruction site'. We have chosen to use the term 'construction site'. We dislike the term 'reconstruction site' because, as pointed out above, such sites are not reconstructions of actual places, but are constructions based on contemporary interpretations of the past. The term 're-construction' is therefore strictly a misnomer and, worse, a source of potential misinformation.

Most of the structures at the construction sites discussed in the following chapters have been built employing 'ancient' (i.e. what is considered to be chronologically appropriate) technology, in geographical areas which might be expected to have contained such buildings at some time in the past, but not usually on the actual site of excavated buildings (see, for example, IJzereef, Chapter 11). Many have a collection of buildings of different periods (see for example, Culleton, Chapter 4).

The book is not concerned with the reconstruction of extant remains of (pre)-historic sites, for example, the work of Sir Arthur Evans at Knossos on the island of Crete or the rebuilding, both earlier this century and again more recently, of the main entrance to the Great Enclosure at Great Zimbabwe (Mategna 1996). Nor is it concerned with Open Air or Eco—museums. Nor, following the guideline

of the ICOMOS Charter for the Protection and Management of the Archaeological Heritage (1990) which states (Article 7) that 'reconstructions should not be built immediately on the archaeological remains', is it concerned with modern reconstruction, preservation or consolidation at sites in the care of national archaeological or heritage agencies. Having said this, a discussion of the development of Colonial Williamsburg—a site that would appear to be in breach of the ICOMOS Charter—is included (Hume, Chapter 5), as it raises issues pertinent to all construction sites. Also, as a way of introducing a number of the broader issues relating to the problems of construction sites, we have included the chapter by Jameson and Hunt who outline the debate within the National Parks Service in the USA over 'reconstruction vs preservation-in-place' (Jameson and Hunt, Chapter 2). Many of the issues raised within that ongoing debate—such as potentially misleading visitors by poor or incorrect construction—are also central to the discussion of the role of 'construction sites' as discussed here.

A DEVELOPING TRADITION

Some of the most influential efforts to create construction sites were those of Hans Ole Hansen in Denmark (Hansen 1959) (although these were certainly not the first efforts at building such sites—see, for example, Schmidt, Chapter 9). As a child, Hansen became dissatisfied with simply looking at objects from the past in museums. He wanted to find out more about the people who had made the beautiful artefacts on display, how they had lived and some of the difficulties they had faced in everyday life. He wanted to handle the objects to get some idea of the craftsmanship of the people who had made them—objects at that time frustratingly secure behind glass museum cases. He began to attempt to make replica objects and, with his friends, tried to build houses using only prehistoric technology (Hansen 1959:11–18). His work developed into the now world famous experimental archaeology Centre at Lejre in Denmark (and see Rasmussen and Grønnow, Chapter 8).

About ten years after Hansen's first attempts to construct prehistoric-style houses Peter Reynolds began work at Butser in England 'primarily to explore theories and ideas suggested by the findings of archaeologists' (Reynolds 1979:7; and see Reynolds, Chapter 7). Like Lejre, Butser was created on a strong foundation of scientific experimentation, with educational and presentational aims important but subsidiary. The pressure of visitors began to interfere with the Centre's archaeological research programme, and as a result the constructed buildings were replicated some way from the original experimental site. There were therefore in effect two Butsers: the first entirely dedicated to scientific experimentation, and the second aimed at the tourist and education markets, in addition to being the focus for extensive scientific research on, for example, crop yields and storage (see Reynolds, Chapter 7). These sites were developed at the same time as ethnographic parallels and quantitative methodology began to

be used far more frequently by archaeologists in order to explore the processes by which the archaeological record may have been created (see, for example, Binford 1983; Clarke 1968). As such, Butser and Lejre are particular features of their time and hold a special place within the history of construction sites and archaeology as a whole.

Undoubtedly, from a UK perspective, some of the general public's interest in Butser had been stimulated by a BBC documentary programme that followed the trials and tribulations of a group of people who had been sent off to 'live as Iron Age people' for a year—ostensibly with no contact with the outside world (BBC Living in the Past). The group lived in wattle and daub houses, dressed in 'authentic' Iron Age costumes and supposedly lived off food that they had grown and prepared themselves. It is almost certain that the wide interest shown in the programme was not only based on the scientific aspects of the experiment, but also on the social dynamics of the group living under these conditions. This interest in the social aspects of the past is very important and is identified in a growing body of archaeological opinion that has come to recognize that interest in the past and the ways in which we choose to project the past are very much rooted in the concerns of the present (see, for example, Lowenthal 1985; Fowler 1992; Shanks and Tilley 1992). The BBC series—and, indeed, construction sites in general—have as much to do with the preoccupations of the present as they do with an objective, scientific and disinterested analysis of the past (see, for example, Keen, Chapter 16). The key to understanding this aspect of construction sites lies as much in the domains of sociology, anthropology and psychology as it does within archaeology. Interest in the social dimensions of the past reflects many of the contemporary concerns with the modern environment—and with what we as a species are doing to the environment—which makes the past environment worthy of consideration (see especially Zdanovich, Chapter 20). It is recognized that some things have been lost as well as gained in modern society; in this context, those who have developed or who work at construction sites sometimes appear to prefer this past to the present. Many are individuals perhaps even 'rebels'—who do not subscribe to any clearly defined academic paradigm but who work(ed) from a dissatisfaction with modern academia, education or presentation and a belief that their sites can encourage visitors to think more deeply about society (e.g. Hansen 1959; Keen, Chapter 16; Reynolds, Chapter 7; Zdanovich, Chapter 20).

WHY DO PEOPLE CONSTRUCT SITES?

We have identified three functions of construction sites:

- 1 archaeological experimentation;
- 2 education:

3 presentation (subdivided by Blockley, Chapter 1, into three sub-categories: interpretation, tourism development and local or cultural identity).

All of the following chapters emphasize one or more of these functions as being the stimulus for, and continued central ethos of, the site being discussed. Some (for example Reynolds, Chapter 7; Rasmussen and Grønnow, Chapter 8) emphasize experimental archaeology or, in the case of the Globe, experimental theatre (Schadla-Hall, Chapter 6), as their main raison d'être but such sites are also conscious of their educational responsibilities and essentially—their reliance upon tourism that enables them to carry out their primary experimental work. Other sites focus on their role as tourism venues as their main function (e.g. Culleton, Chapter 4; Clottes and Chippindale, Chapter 13; van Schalkwyk, Chapter 19) and emphasize their contribution to the local economy. A very few (for example, those built by the staff of the Ancient Technology Centre, UK for local schools, see, Chapter 16) exist purely for formal education although many see this as a very important element of their work, which also happens to bring in much needed financial support. However, we know of no site that manages to survive solely for archaeological experimentation.

The success and remarkable expansion of construction sites, particularly in Europe and North America, can be attributed to an ability to respond to a variety of different needs over and above pure archaeological research. All have been helped by developments in education and the general public's use of their leisure time. In education, active learning and discovery methods have taken many teachers of the past out of the classroom and into the historic environment (see, for example, various chapters in Stone and MacKenzie 1994; Stone and Molyneaux 1994; Jameson 1997). Such an approach was (and in many countries continues to be) encouraged by educational philosophy and practice and led indirectly to the creation of the Ancient Technology Centre and Archaeological Resource Centre in the UK (Keen, Chapter 16; Jones, Chapter 18). The inclusion of the prehistoric past within school curricula is itself becoming more common (with notable exceptions, such as England) and in recent years the popularization of archaeology has transformed public perceptions. The 'grunter groaner image' of Early Man, while remaining intrusively common through the continued use of old text-books, is finally being replaced by more acceptable images. It is now widely accepted that there is no reason to believe that our prehistoric ancestors, despite their 'simpler' technologies, were not human beings with social and spiritual dimensions and aspirations. Indeed, there is a mutual interdependence here as some of this change in perception, which has led to sites being used extensively by school groups, has been provoked by the sites under discussion in this book. It should be noted, however, that prehistory has been included in some school curricula (for example, in Wales) as an overt political statement of nationhood.

Modern tourism now often sells its products as 'experiences' rather than simply as visits or even education (see, for example, Addyman 1994; Collett 1992; Ucko 1994; McManus 1996). Whereas a well-read museum visitor used to be satisfied with a typology of flints in a glass case, reinforcing contemporary notions of linear progress, the modern visitor prefers to see the flint in use, with a brush shelter and a column of smoke from a wood fire as a backdrop—or at least a three-dimensional image of some such scenes as at the Jorvik Viking Centre, York, UK (see Jones, Chapter 18).

There is 'something for everyone' on the most successful construction sites, and those that have survived the longest and maintained their integrity the most seem to have achieved a balance between scientific, educational and presentational aims. The archaeologists feel that they are performing a valuable service by submitting their discipline to the scrutiny of the general public; teachers (and hence their students) have direct access to the most recent research without the customary fifteen- to twenty-year gap between specialist report and (frequently inaccurate) school textbook; the public has a glimpse of a different world which, thanks to ongoing research, has at least the possibility of change, and thus of avoiding becoming a static theme park image. By presenting an active, 'hands-on' approach, construction sites engage their visitors more easily than traditional museum displays. It is worthy of note that relatively few conventional museums throughout the world cater for the interest and enthusiasm from schools and the public in the same way. The 'hands-on' approach does have many adherents within the museum world, yet the final summary report of the 1986 UNESCO seminar on Museums and Education (UNESCO 1986) contains no mention of handling collections or, in the case of precious or easily damaged artefacts, of the creation of replica handling collections. The realization that 'hands-on' interaction should be a vital part of the museum experience led directly to the development of the Archaeological Resource Centre in York, as a development of the Jorvik Viking Centre which, because of the constraints of its location, was unable to include such an approach (see Jones, Chapter 18).

The ability of construction sites to attract visitors also often acquires a political dimension as local, regional and state authorities become aware of the undeniable potential of these sites for reinvigorating the local economy and generating revenue (see Culleton, Chapter 4; van Schalkwyk, Chapter 19; Zdanovich, Chapter 20; and, in relation to, Chapter 20, Shnirelman 1998). When these sites are associated with surviving remains, the conservation versus (re)construction debate frequently becomes a much hotter issue (see Jameson and Hunt, Chapter 2) and opens itself to more overt political use (van Schalkwyk, Chapter 19; Shnirelman 1998). In his discussion of the construction of the old Zulu capital oNdini, van Schalkwyk emphasizes this point in two ways. First, there is a strong suggestion that tourists are attracted by the construction itself rather than by the limited visible remains of the real site. This carries the implication that at least some of the tourists who visit oNdini are more interested in the created site than they would be in the conserved remains of the real past.

Construction is often perceived as having higher visual potential than conservation and, consequently, higher visitor potential (see also Jameson and Hunt, Chapter 2; Okamura and Condon, Chapter 3). Visitors inter-react with the constructed site in a positive way that was previously impossible for all but the few who could interpret the fragmentary archaeological remains that were all that was available before the construction site was created. As a result, the construction is potentially a far more powerful and influential tool. Second, the political use of the site has moved far beyond mere economic regeneration and, while such regeneration is obviously critical to the stability of modern South Africa, the position of oNdini as a potent symbol of nineteenth-century Zulu tradition and power transposed onto the emerging political situation in postapartheid South Africa is equally critical and of potentially far greater political and social importance. The site is, without doubt, potentially divisive and could easily be used to fan the differences between Zulu and non-Zulu in South Africa. As is so frequently the case, the cementing of this perception of—in this example, Zulu—tradition, power and implied social and political rights within local social consciousness is being achieved through school visits to the site.

A number of contributors suggest that the most effective programmes for schools and tourist visits exist where there is a continuing programme of experimental archaeological work on site, a point also made forcibly by Schadla-Hall (Chapter 6) for the Globe Theatre. We strongly support this view even when sites' primary functions (and therefore measures of success) are defined as education and/or tourism. Sites where experimentation is lacking as, for example, at the Traditional Village at Great Zimbabwe (Ndoro and Pwiti 1997), present a far more static past, or tableau, that often lacks the educational excitement of ever-present discovery and, more worryingly, are more easily open to the abuse of deliberate or accidental misinterpretation. It is the presence of archaeological experimentation that is perhaps the single most important aspect of any educational visit or use of such sites. By making students aware that the sites are experimental, and that they are not definitive models of what it was like in the past, teachers at all levels of education can develop discussion on the nature of evidence and on the nature of the past itself. The value of construction sites is thus brought into the present and allows them to help us to begin to make sense of our own lives.

Traditional or indigenous views of the past can also be used in a similar way to scientific experimentation by giving a construction site a sense of relevance to the modern world (van Schalkwyk, Chapter 19). At Plimoth Plantation in America, a construction site based on the seventeenth-century European settlement in the area, 'first person' interpreters refuse to drop their seventeenth-century *personas* and carefully extract themselves from conversations with visitors that include reference to the post-seventeenth-century world. A few hundred metres away, however, in a constructed *Wetu* (dwelling) of the then (and now) local indigenous Wampanoag people, first person interpretation is dropped and indigenous interpreters move freely between issues related to first contact and

modern issues critical to indigenous peoples. Just as ongoing scientific experimentation links the past to the present, so too does discussion of issues related to indigenous peoples in the seventeenth and late twentieth centuries.

There is evidence that, when the experimental archaeologists leave, the site dies or, worse still, becomes Disneyfied. One characteristic of this is that the exact outcome of any activity practised on the site is known in advance. As Pétrequin (Chapter 15: 225) comments:

When the archaeologists left the site...the architectural reconstructions became lifeless: they became a decorated facade, poorly lit by inadequate presentation, where no attempt was made to reconcile the provisional and rapidly shifting image of advanced research and the successive slowly evolving clichés which underpin social perception.

There are a number of compelling reasons why experimental archaeology or, at the very minimum, demonstrations of craft technology and production processes, should accompany any construction of a past settlement or living environment:

It is far easier to present, either in a museum or on-site, a flesh-coloured plastic dummy clothed in hypothetical skins or fur, crouched over a hearth at the entrance to a make-believe cave, holding a striking stone in one hand a flint core in the other than to establish the different stages in production of prehistoric tool. In fact the presentation of such a scene robs man of his principal virtue, the ability to think. Man is commodified, frozen, nothing is left to the imagination. By way of a contrast, the presentation of the various stages of production of a flint or bronze must be accompanied by sophisticated thought.

(Frère-Sautot 1994:3)

It is by presenting constantly changing and evolving images of the past that the spectre of 'Disneyfication' can best be banished. This is not always understood or appreciated by institutional backers of reconstruction sites. Reynolds, director of Butser, which has an ongoing programme of research, records the incomprehension of local council officials who ask when his site will achieve 'a state of completion' (Reynolds, Chapter 7). Lack of 'completion' is in fact what differentiates these sites from theme parks; and this is true of even the largest construction sites such as Archeon in The Netherlands: 'Building at Archeon will never be finished, because the story of the past will never be finished. Since we base our work on archaeological research there will always be new material and new ideas' (IJzereef, Chapter 11: 179)

In a similar way, the most authoritative or massive reconstructions are not necessarily the most impressive. Blockley (Chapter 1: 32) highlights this point: 'Surely, therefore, it is more appropriate to invest in opportunities to test ideas

and create temporary reconstructions which may survive for less than a year, but which generate powerful memories and infectious enthusiasm that persists for life?' Visitor numbers can be evaluated, but how do we evaluate 'powerful memories and infectious enthusiasm'? Blockley also argues for the 'outreach approach' and the notion of community involvement in archaeological constructions, observing that 'the most direct way of reaching a local community is through its children'.

Although big does not necessarily equate with 'Disneyfied', the experience of large, centrally planned centres is different from that of the smaller centres, which are often the life-work of essentially one person (see, for example, Keen, Chapter 16; Reynolds, Chapter 7). When these individual sites are taken over by a larger body, frequently a cultural offshoot of the state, something may be lost. Castell Henllys, a small independent site, was taken over by a National Park in 1991. The interpretation of the site became more coherent, informative and authoritative:

However, by their very nature they [panels and leaflets] tend to dominate opinion forming rather than encouraging creativity on the part of the visitor. While entertaining, these display panels are more informative and educational than challenging and demanding a response. Likewise, those guides employed by the National Park to work in the shop and to be present on the Iron-Age fort itself act as foci for questions, rather than catalysts for debate.

(Mytum, Chapter 12:188)

Scientific rigour thus may not be necessarily the greatest priority in presentation to the public. This, of course, does not mean that scientific rigour can be disregarded, but that it needs to underpin rather than dominate interpretation. In the same way, high tech investment is not essential and, for some, may actually hinder understanding. The human dimension of cave art may be, for example, perhaps somehow lost at the Parc Pyrénéen d'Art Préhistorique (Clottes and Chippindale, Chapter 13), with its concrete vault, headphones and gantries of lights and videoreality. The Park can, of course, never replace the experience of a visit to a real cave, where one is led deep into a damp mountain by a local person, torch in hand, to see even the very smallest and minor example of real palaeolithic art. On the other hand, the Park, which children love, creates an experience which is larger than the 'simple' experience of cave art. However, where possible, it should be seen as an *extension* (for those lucky enough to be able to visit real palaeolithic art), not an alternative to the core of the experience. The Park addresses the need to satisfy a huge demand from the public to see palaeolithic cave art that, for conservation reasons, can no longer be satisfied by access to the real thing. The Park can never replicate a visit to a real cave for the very simple reason that it is not one. Indeed, as Clottes and Chippindale (Chapter 13) explain, the Park does

not follow the aims of Lascaux II (Delluc and Delluc 1984; Debaye and Duchadeau-Kervazo 1994) in attempting to faithfully replicate the real cave, but rather attempts to be an 'evocation' of what it was like to be in Europe in the palaeolithic era. Perhaps there is something to be learnt from this approach for all construction sites. We are lucky in that, for some at least, there is still the opportunity to visit real caves where palaeolithic art still survives. However, as twentieth-century people we can look at the original art but can never see it through the eyes or with the same comprehension as those who actually painted it. Something is missing: we are not palaeolithic people and are forever trapped within our twentieth-century mind set. The developers of the Parc Pyrénéen d'Art Préhistorique accepted this dilemma and attempt to provide a distant image of one world for another. If we take the analogy that construction sites reflect the past as if through a mirror, the Park explicitly states that the mirror is tarnished and has shattered: it is useless for anything but catching a glimpse of a reflection. Whether the reflection is of the palaeolithic or the twentieth century is left up to the visitor. The same is surely true of all construction sites whether evoking European prehistory, Colonial America, or 'traditional' Africa. A clearer admission of this, by those running sites, could avoid them being used for overtly political reasons (see Schmidt, Chapter 9; Sommer, Chapter 10; van Schalkwyk, Chapter 19) and could allow us to move away from the presumption that such sites show what life was really like.

The work of Blockley and several other contributors provides a healthy counterpoint to the tendency of the heritage/entertainment industry to provide undigested, sterilized images of a supposedly 'real' past in the pursuit of a saleable product. Far more dangerous, however, is the presentation of ready-made images to serve a political or ideological purpose, as was the case in the German 'reconstructions' of the 1930s. The fear that reconstruction sites may be abused as well as used was articulated at the conference on reconstruction sites in 1993, held in Aubechies, Belgium, and referred to in the Preface. The very real concern that such sites may be employed in Eastern Europe, South Africa, or elsewhere, to buttress or even create national identities must not be ignored or sidelined as unimportant. It appeared from discussions at Aubechies that projects for 'Germanic villages' and other national and ethnic reconstructions have already been proposed (and see Schmidt, Chapter 9; Shnirelman 1998).

Ready-made images of the past are uncomfortable bedfellows with archaeological experimentation and open-minded education. In many ways they are totally unacceptable and certainly become so if they are created for overtly political purposes. However, *any* presentation of the past will create its own reverberations and after-images in the minds of the people who see it. Reynolds (Chapter 7) concludes by stating that 'Such emotional journeying into the past is an illusion sustained by a suspension of judgement and alloyed by prejudice.' This does not deal with the fact that, independent of his wishes, visitors to his site will invariably take some sort of image home with them which they may or may not recognize as an 'illusion'. Sommer (Chapter 10: 166) recognizes that

until becoming director of an open-air museum, she, also, was against presenting images or pictures of the past:

Now...I have presented and invented pictures myself... Without the use of images, no presentation of the past is possible... To make the past accessible, to help visitors to start a discourse of their own, we *have to* create images, albeit that they will always be false. The question we have to solve is how to make this obvious.

Research constantly challenges the images we present and many aspects of construction involve guesswork. Prehistoric houses on construction sites are in most cases an inferred superstructure erected on a known ground plan, often using materials which can still be collected locally. Their scientific importance is, in some instances (especially where modern materials such as string have been used) marginal, but it is overshadowed by the role of houses as a context, a backdrop, an ambience in which activities such as weaving or pottery-making acquire quite another dimension. This is taken a step further in the case of the Globe (Schadla-Hall, Chapter 6) for, at one level, the building exists to facilitate experimentation in acting and theatre production rather than for the building *per se*.

Construction sites often make use of local human and environmental resources to experiment with techniques and plant and animal food resources, as well as houses, thus tapping into the living, or dying, craft tradition of the locality. Such sites become an integral part of the local environment, and because of the community involvement in their construction and maintenance, can only be a true part of that particular environment (e.g. Keen, Chapter 16). Such a site, evolving from local resources, would not carry the same conviction of environmental acceptability or appropriateness if it were built elsewhere (although see Sommer, Chapter 10 for a discussion of appropriate site location). In France this is the main difference between an archéoparc and an archéosite. The former can be erected anywhere; the latter must be located within a sympathetic or authentic environment (although so-called authentic environments are being created around some construction sites—see, for example, Fowler, Chapter 17; IJzereef, Chapter 11). Thus, scientific constructions tend to be sited close to where the evidence for them was originally discovered—particularly in the case of wetland site constructions such as Chalain (Pétrequin, Chapter 15).

Most experimental archaeologists working on construction sites wish to communicate their work to a wider public and generally succeed in so doing. This may be because they are good communicators or because their work is itself sufficiently visual and interesting to communicate itself. Schools become involved, often initially through informal links with teachers and subsequently in formal links with education authorities. In the case of a number of European sites, children spend several days in and around them while on residential courses (for example, the French *classes du patrimoine* [heritage courses] or

classes vertes [environmental courses]. France now has at least half a dozen sites which lend themselves to such programmes and there are similar programmes in other European countries, for example, Denmark (Rasmussen and Grønnow, Chapter 8).

Those who have experienced children, students, teachers and archaeologists all working together on a construction site are aware of how life-enhancing the experience can be for those concerned, and how important such approaches are for the present and the future. A child visiting the Cranborne Ancient Technology Centre recently thanked the director with the words: 'this has been the best day in my life' (pers. comm. Jake Keen and see Chapter 16). However, in order to create an environment where such work can take place, archaeologists have to work with teachers and understand their requirements and constraints (and see Zimmerman *et al.* 1994). Educational use of construction sites only becomes good educational use when the visit and work are planned within the context of the students' curriculum and their teachers' educational aims and objectives. Without such collaboration, educational visits to construction sites become free days out of school rather than a valuable link between the methodology and goals of archaeology and education.

This point aside, those children who can eat, live and sleep in constructed houses at SAMARA are clearly learning about themselves as well as the past (Dieudonné, Chapter 14). As with Blockley's 'infectious enthusiasm' it is these attributes of construction sites that are, of course, the hardest to evaluate. Dieudonné (Chapter 14: 216) makes an attempt in concluding his chapter:

Out of the shared experience of children, teachers and archaeologists emerges something which touches the very nature of the human story; both intellectually and perceptibly, in time and in space. The potential of this interactive work has not yet been fully tapped. We are confident that the approach encapsulates something of the humanity of tomorrow.

This is surely the kernel of the interaction between scientific archaeology, education and public presentation. If all three functions are present in a construction site, then all three must surely benefit. Hans Ole Hansen sums this up better than anyone else:

If a Stone Age man could have come to life again and seen the models I made, I expect he would have flung himself down and laughed until he cried. That is why I call it an *experiment* in reconstruction. No one was going to catch me saying that I intended to build a Stone Age house as it really had been, but only as it might have been.

Now here is the problem which I was faced. Try it for yourself before I go on to tell the story of what happened and how we fared.

Figure 2 is an archaeologist's plan of the site on which I based my experiment, and includes information given in his report on his excavations. See if you can reckon from this how the house must have looked or could have looked, which is what I had to do. Figure 3 shows how I made a model of house B at the site. If you think your ideas are better than mine, all right, or if you feel that mine are better than yours, I won't quarrel with that either. It will just show how difficult it is to arrive at the truth, or how many possible ways there are of interpreting facts.

(Hansen 1959:18)

We can think of few better definitions of good archaeological method, educational practice or interesting public presentation.

REFERENCES

Addyman, P.V. 1994. Reconstruction as interpretation: the example of the Jorvik Viking Centre, York. In *The Politics of the Past*, P.Gathercole and D.Lowenthal (eds), 257–64. London: Routledge.

Barlow, A. 1994. Still civilizing? Aborigines in Australian education. In *The Excluded Past: archaeology in education*, P.G.Stoneand and R.MacKenzie(eds),68–87. London: Routledge.

Binford, L. 1983. In Pursuit of the Past: decoding the archaeological record. London: Thames and Hudson.

Bond. G.C. and A.Gilliam (eds) 1994. *Social Construction of the Past*. London: Routledge. Clarke, D. 1968. *Analytical Archaeology*. London: Methuen.

Collett, D.P. 1992. The Archaeological Heritage of Zimbabwe: a masterplan for resource conservation and development. UNDP and Unesco Project Report (Zim 88/028).

Debaye, D. and C.Duchadeau-Kervazo. 1994. Lascaux IÍ—Le Thot: deux structures touristiques a vocation multiple. In The multifaceted aims of reconstruction sites: archaeological evidence, 'reconstruction' of sites, education and public awareness. Unpublished precirculated paper, World Archaeological Congress-3, Theme 9, New Delhi, India.

Delluc, B. and G.Delluc 1984. Lascaux II: a faithful copy. Antiquity 58, 194-6.

Fowler, P.J. 1992. The Past in Contemporary Society (Then and Now). London: Routledge.

Frère-Sautot, M-C. 1994. Experimental archaeology and the public: fifteen years' experience. In The multifaceted aims of reconstruction sites: archaeological evidence, 'reconstruction' of sites, education and public awareness. Unpublished precirculated paper, World Archaeological Congress-3, Theme 9, New Delhi, India.

Garlake, P. 1973. Great Zimbabwe. London: Thames and Hudson.

Gawe, S. and F.Meli. 1994. The missing past in South African history. In *The Excluded Past: archaeology in education*, P.G.Stone and R.MacKenzie (eds), 98–108. London: Routledge.

Hansen, H.O. 1959. I Built a Stone Age House. London: Phoenix House.

Hewison, R. 1987. The Heritage Industry. London: Methuen.

- Holland, L. 1994. Whispers from the forest: the excluded past of the Aché Indians of Paraguay. In *The Excluded Past: archaeology in education*, P.G.Stone and R.MacKenzie (eds), 134–151. London: Routledge.
- ICOMOS. 1990. Charter for the Protection and Management of the Archaeological Heritage. Paris: ICOMOS.
- Jameson, J. (ed.) 1997. Presenting Archaeology to the Public. Walnut Creek: AltaMira. Layton, R. (ed.) 1994a. Conflict in the Archaeology of Living Traditions. London: Routledge.
- Layton, R. (ed.) 1994b. Who Needs the Past? London: Routledge.
- Lowenthal, D. 1985. *The Past is a Foreign Country*. Cambridge: Cambridge University Press.
- MacKenzie, R. and P.G.Stone. 1994. Introduction: the concept of the Excluded Past. In *The Excluded Past: archaeology in education*, P.G.Stone and R.MacKenzie (eds), 1–14. London: Routledge.
- McManus, P.M. (ed.) 1996. Archaeological Displays and the Public. London: Institute of Archaeology.
- Mategna, E. 1996. Conservation history of the Great Enclosure, Great Zimbabwe, with reference to the proposed restoration of a lintel entrance. In *Aspects of African Archaeology*, G.Pwiti and R.Soper (eds), 825–8. Harare: University of Zimbabwe Press.
- Ndoro, W and G.Pwiti 1997. Marketing the past: the 'Shona' village at Great Zimbabwe. *Conservation and Management of Archaeological Sites* 2, 3–8.
- Reynolds, P.J. 1979. *Iron-Age Farm: the Butser experiment*. London: British Museum. Shanks, M. and C.Tilley. 1992. *Re-constructing Archaeology*. London: Routledge.
- Shnirelman, V.A. 1998. Archaeology and ethnic politics: the discovery of Arkaim. *Museum International* 2, 33–39.
- Stone, P.G. 1994. The re-display of the Alexander Keiller Museum, Avebury and the National Curriculum in England. In *The Presented Past: heritage, museums and education*, P.G.Stone and B.L.Molyneaux (eds), 190–205. London: Routledge.
- Stone, P.G. and R.MacKenzie (eds). 1994. *The Excluded Past: archaeology in education*. London: Routledge.
- Stone, P.G. and B.L.Molyneaux (eds). 1994. The Presented Past: heritage, museums and education. London: Routledge.
- Ucko, P.J. 1994. Museums and sites: cultures of the past within education—Zimbabwe, some ten years on. In *The Presented Past: heritage, museums and education*, P.G.Stone and B.L.Molyneaux (eds), 237–82. London: Routledge.
- UNESCO. 1986. Report on Museums and Education, International Seminar held in Guadalajara, Mexico. Paris: UNESCO.
- Witz, L. and C.Hamilton. 1994. Reaping the whirlwind: *The Reader's Digest* Illustrated History of South Africa and changing popular perceptions of history. In *The Presented Past: heritage, museums and education*, P.G.Stone and B.L.Molyneaux (eds), 29–45. London: Routledge.
- Zimmerman, L.J., S.Dasovinch, M.Engstrom and L.E.Bradley. 1994. Listening to the teachers: warnings about the use of archaeological agendas in classrooms in the United States. In *The Presented Past: heritage, museums and education*, P.G.Stone and B.L.Molyneaux (eds), 359–74. London: Routledge.

1 Archaeological reconstructions and the community in the UK

MARION BLOCKLEY

INTRODUCTION

Archaeological reconstructions are an easy target for criticism by academics, but they are undoubtedly popular with the wider public for a number of reasons. Foremost of these is that they 'fill in the gaps' or complete the conceptual jigsaw of 'this is what it was like'. The danger, of course, is that the more massive and durable a reconstruction appears, the higher its credibility with the public. Further, reconstructions suffer from the fact that, as with all interpretation, they are a reflection of the time in which they were created (Fowler 1992:5; Lowenthal 1985:214–17; Walsh 1992:143).

There are a number of reasons for creating reconstructions or simulations of archaeological sites and structures. Interestingly, these motivations can change during the lifespan of the more durable reconstructions in response to changes in the funding or political climate. There would appear to be five main forces behind the creation of reconstructions: interpretation; education; tourism development; experiment/research; local or cultural identity. However, detailed examination of individual case studies often indicates a lack of clarity of purpose or multiple and conflicting motives.

Even the terminology surrounding reconstruction is open to debate. Brian Hobley, the instigator of the Roman fort reconstruction at The Lunt, Coventry favours the term 'simulation' (Hobley 1982). For Hobley the terms 'reconstruction', 'restoration', 'reconstitution', 're-creation' and 'realization' all imply a knowledge of what existed—or, in the case of the open air museums, perhaps the relocation and restoration of existing buildings. Certainly these monumental creations at actual size are more impressive than two-dimensional artists impressions and therefore, presumably, appear more credible to the visitor. If large sums of money and effort have been invested in an interpretation which passes the test of durability and longevity it is more likely to be viewed as 'authentic'.

PHILOSOPHICAL APPROACHES

The traditional basis of site interpretation orders sites in a sequence which may be temporal, functional or even aesthetic. This story is told through labels and panels. There is, however, a significant gap between the text and the site which cannot be translated (Silverstone 1988). Texts require deliberate engagement whereas 'seeing history is a less self-conscious process than reading' (Lowenthal 1985:245). Reconstructions are, therefore, particularly successful because of their visual impact. Objects cannot be fully understood through the glass of a showcase; they have to be touched, used and lived with (Hodder 1991; Merriman 1991). Reconstructions of archaeological sites can provide a unique opportunity for learning and interpretation through living history, workshops and placing objects in context.

The non-verbal abstract knowledge people possess, broadly described as their 'skills', is very important in how they gain meaning from an archaeological or historical site. Sites are, therefore, categorized and related to people's own experience, age and social group. Individuals obtain practical knowledge through copying and imitation without recourse to linguistic knowledge. When this practical knowledge is translated into language it is changed. Professional jargon such as 'timber-laced rampart', 'multi-vallate hill fort', 'Grubenhauser' or 'petit-tranchet derivative' would have meant nothing to the people who built these structures or made the stone tools. They are simply categories to enable curators and professionals to order information and artefacts (Washburn 1990), whereas an 'inspired guess' at reconstruction overcomes the boundaries of language and has the potential to communicate more effectively. Reconstructions, which rely on their visual impact for success perhaps combined with smell, touch and sound, have a wide appeal, transcending age, education or class differences (Fowler 1992:90–1).

Objects remain dull and meaningless if they are treated as signs to be looked at and read like words. Similarly static, consolidated archaeological sites can lose their sense of place, time and atmosphere. The mode or rhetoric of the site museum and site display is traditionally that of words and language. This fails to communicate the full potential of the place and it is important to release the meaning of a site through bodily use, events and activities rather than passive observation. Again, the reconstructed site has tremendous potential for imaginative use through workshops and special events programmes (see below, also Blockley 1993).

There is considerable debate as to whether reconstructions should be created *in situ*, as at West Stow, the site of an Anglo-Saxon settlement in East Anglia, and Arbeia, the site of a Roman fort in the North-East of England (Bidwell 1987), or as off-site replicas to show how structures and buildings alter over time. It has been suggested that people perceive the past to be quite static between the various 'ages'—humans making the great leap from 'stone', to 'bronze', to 'iron age' without any process of evolution or change. Thus the Saxon timber hut springs fully formed from the Roman villa. Contrary to this view is the

importance of the sense of place, putting people and objects into their environmental context, something that museums can never achieve. One alarming consequence of *in situ* reconstruction is the impact of visitor erosion of the site and damage to surviving deposits. It is quite incredible that Scheduled Monument Consent was granted by English Heritage (the national body with responsibility for advising government on the protection of archaeological sites) for the development of the in situ reconstruction at Stansted Mountfitchet Castle (Blockley 1991:28–35). While the consent specified that the reconstructed timber palisades should be set on a framework placed on top of the surviving earthwork so as not to damage it, the insertion of concrete pathways and wooden steps, as well as uncontrolled visitor access, have led to significant erosion (Figure 1.1). In addition, a 2-metre-deep flint-lined pit was dug into the bailey (courtyard) of the castle to create an 'authentic dungeon'. This problem does not occur at sites like West Stow in Suffolk where the reconstruction has only taken place after total excavation and where no preserved earthworks survive in-situ to be damaged.

Over the last ten years within museums there has been a fashion for more interaction and activity, influenced by the success of the science centres and discovery centres in the USA (Borun and Flexer 1983; Freeman 1989; Kennedy 1990). Archaeologists have a keen sense of the concrete and awareness of texture through regular handling of artefacts. The visitor to museums and archaeological sites does not get this routinely but the evidence suggests that they strongly



Figure 1.1 Erosion of the banks and concrete pathway at the entrance to Stansted Mountfitchet Castle. (Note the heads on pointed stakes.)

desire it. It is presumably for this reason that, over the last ten years, activity-based workshops and events have flourished at archaeological sites and reconstructions in response to a demand from visitors, particularly school parties (Blockley 1986; Rylatt 1986; and see Jones, Chapter 18). These activities provide the stimulus for further discovery and as such are examples of good practice in interpretation, defined by Tilden as 'not instruction, but provocation' (Tilden 1977:9).

NATIONALISM AND ROMANTICISM

A powerful motivation for the creation of many archaeological reconstructions has been to give people a dramatized sense of being part of the state, 'with a share in its future' (Horne 1984:166; see also Sommer, Chapter 10). The rise of National Socialism in Germany during the 1930s and 1940s influenced a whole generation of German pre-historians who were encouraged to interpret European history as political legitimization. At this time open air museums like the reconstructed neolithic and bronze age site at Unteruhldingen on Lake Constanz were created to popularize the state view of pre-history (Arnold 1990; and Schmidt, Chapter 9; Sommer, Chapter 10). It has been suggested that traditions are often 'invented' to establish or legitimize institutions or to imbue a system of beliefs or values (Hobsbawm 1987:9). The leaders of the modern militarized society of Iraq have chosen to select and display those aspects of ancient Mesopotamian civilisation power, cruelty, the ruler cult—which reinforce their own values and give status to them. In doing this they have ignored the qualities of learning and wisdom that underpinned the ancient cradle of civilization. Vast piles of Iranian helmets have been heaped into huge mounds in imitation of the piles of skulls of vanquished enemies created by Sennacherib the Assyrian king. Huge wall reliefs have been created depicting Sadaam Hussein as an allconquering Assyrian King riding roughshod over his foes in a war chariot. The restoration of Babylon the Great, Mother of Harlots is seen as a potent symbol. Every fiftieth brick bears the stamp 'restored in the era of Sadaam', in imitation of Nebuchadnessar, who stamped bricks with his own name during his restoration of Babylon in 600 BC (Wood 1991). Sadaam fabricated these highly emotive symbols of the past to imply the re-emergence of the old Mesopotamia as a world force.

TOURISM DEVELOPMENT

Archaeological sites also have an economic value as venues for cultural tourism. This generates the attendant problem of the erosion of the resource. One response to the impact of tourism has been the creation of replica attractions in the vicinity of the original site. Lascaux II with its timed tickets and restricted access fosters the illusion that visitors see the real cave paintings (Debaye and Duchadeau-Kervazo

1994). One of the options proposed for Stonehenge was the creation of a replica (Addyman 1989). Prentice (1993:43) suggests that some people 'may wish to be fooled, for this is part of the tourist experience and enjoyable all the same'. At Cockley Cley in Norfolk the owner claims to have 'reconstructed' an Iron Age village *in situ*. In reality it is total fabrication based on no evidence at all. Nevertheless, tourists and school groups are regularly convinced that they have seen an accurate reconstruction on the site of an Iceni Village as described in this extract from the promotional booklet for the site:

Iceni Village—This unique reproduction of an Iceni settlement of the first century AD is the star attraction at Cockley Cley. Believed to be on the original site of a village dating from the time of Boadicea—the Iceni queen who led a revolt against the Romans—it attracts thousands of visitors of all ages every year.

(Goldsmith 1991:1)

Open air museums originated in Scandinavia where, in the late nineteenth century, collecting wooden farm houses which could be moved with ease was not seen as essentially different from collecting furniture. Until 1939 most open air museums were in Scandinavia, the majority of them depicting life in rural communities. Since 1945 open air museums have proliferated in the former Federal German Republic, in the former communist countries of Eastern Europe and in Britain (see Culleton, Chapter 4; Rasmussen and Grønnow, Chapter 8; Schmidt, Chapter 9; and Sommer, Chapter 10). Many of these museums combine dismantled and relocated buildings with simulations based only on excavated evidence.

One of the most successful rural life museums in England is the Weald and Downland Museum at Singleton, West Sussex. This Museum contains dismantled medieval timber-framed buildings placed in a facsimile of a medieval market place as well as reconstructions of earlier buildings based on archaeological evidence. The open air museums at Beamish (Northum-berland), the Black Country (Dudley) and Blists Hill (Ironbridge) purport to display British industrial life at the turn of the century in a relatively 'convincing' environmental context (Trinder 1985, but see West 1988 for a critique). However, as independent museums they are all dependent on visitor income for their ensured survival. Consequently, many bizarre compromises occur in a schizophrenic attempt to provide a popular visitor attraction and an authentic reconstruction of past society. At Blists Hill an early twentieth-century fairground is tightly juxtaposed between an *in situ* archaeological monument (a set of blast furnaces), a relocated wrought ironworks and a relocated Victorian school.

At Avoncroft Museum of Buildings the collections of relocated and restored buildings are displayed as if specimens in a showcase, clearly selected and collected with no attempt to recreate an historic setting. The collection is eclectic so a medieval timber hall can be juxtaposed against a nineteenth-century chain-makers workshop and a 1940s' pre-fabricated house. During the 1970s and 1980s the UK open air museums were particularly successful in attracting paying visitors away from traditional museums Johnson and Thomas 1992). These open air museums have been vulnerable to the criticism that they encouraged the wholesale demolition and removal of threatened buildings from their original location. Nowadays, they are all informed by stricter collecting policies to try and preserve buildings *in situ* wherever possible and only to record and dismantle in the last resort.

The recent reconstruction (1995) of Shakespeare's Globe Theatre at Bankside, London was the culmination of a 30-year obsession by the American actor/producer Sam Wanamaker (Jackson 1991; Schadla-Hall, Chapter 6). However, schemes to provide a tangible link with arguably the greatest period in English drama have been around for nearly a century. The first reconstruction was proposed in the 1890s by William Poel of the Elizabethan Stage Society which was dedicated to performing Shakespeare in its original conditions. The County of London redevelopment plan in 1943 envisaged a utopian vision of the future symbolized by the reinstatement of Elizabethan and Jacobean Bankside. In fact, a reconstruction of the Globe Theatre was included in the original plan for the Festival of Britain (Samuel 1994:247). Only eight outdoor playhouses were built in England during Shakespeare's time, and their size and shape have been subject to considerable speculation over the last two hundred years. Three of these theatres, the Rose (1587), the Swan (1596) and the Globe (1599) were built on the south bank of the Thames at Bankside.

In 1989 the sites of the Rose and the Globe were located and subjected to trial excavation in advance of development (Swain *et al.* 1991). At the time there was a powerfully orchestrated campaign for total excavation of the Globe to provide evidence for the nearby reconstruction, followed by conservation of the surviving evidence *in situ*. However, as the site was granted statutory protection as a scheduled ancient monument, and further excavation would have required the demolition of a listed building, it became something of a conservation *cause célèbre*. Further, consolidation of the incomplete brick and chalk foundations *in situ* would have been extremely difficult. Certainly the planning procedures developed to handle the sites of the Rose and the Globe were particularly significant for the development of English conservation policy (Brindle and Thomas 1990).

Interestingly, recent non-destructive research into the ground plan of the original Globe Theatre using ground-penetrating radar has already led to a need to reduce the number of sides of the new theatre from 24 down to 20. There is even doubt as to whether the stage is facing in the right direction. The theatre's Chief Executive, Michael Holden, says that the theatre may never be fully finished but will evolve as new evidence becomes available. Mr Holden has gone on record to say that 'our business is to create an authentic reconstruction...I'll

pick up the building and spin it round if necessary...Theatre is an organic process, so why shouldn't the Globe be?' (quoted in Ellison 1996:12). These are bold words but they neatly illustrate the dilemma of massive investment in 'reconstruction' projects.

The debate continues regarding the 'authenticity' of the late twentieth-century reconstruction of the Globe, which had to comply with modern planning and building regulations. Further, there is clearly an interesting tension between the desire to stage 'authentic' Shakespearean drama with all the problems this implies and the need to make a commercial success of the new tourist attraction. However, the recent granting of Millennium Commission funding to the Tate Gallery to build a new museum of modern art in the adjacent Bankside power station will ensure that this contentious reconstruction becomes a focus for cultural tourism in this newly created heritage quarter on London's South Bank.

Restorations of existing buildings can involve a substantial element of speculative reconstruction. According to Greek legend, Theseus' galley was preserved by the Athenians for many years. Over time, as the old timber was gradually removed and replaced with new, the question of whether it was still the same ship arose. Was it the authentic ship? If not, when did it cease to be? This concern with authenticity is not a recent phenomenon, in fact Plutarch raised this problem in antiquity (Jokilehto 1995:18). Structures built of fragile materials—mud, brick or wood—have a finite lifespan. If they are significantly restored or recreated, their 'original' appearance can be completely changed. Are the cathedrals of Cologne and Paris authentic Gothic creations? The Saxon tower of Earls Barton church was recently restored with its inauthentic but familiar nineteenth-century crenellations retained rather than removed. The medieval walled town of Carcassonne restored by Viollet le Duc (Auzas 1979:66-9; Bloch 1959:184-90) and the Taj Mahal heavily restored by the British in the 1940s are very familiar and influential landmarks, but both have been subject to considerable restoration and reconstruction and survive as reflections of knowledge or beliefs current at the time of their restoration.

Speculative reconstructions for experiment or academic research were very fashionable during the 1970s. John Coles (1979:33) believes that experiment brings us closer to understanding past human behaviour. However, many believe that we can never truly understand past behaviour because of our modern cultural baggage (Lowenthal 1985:212–24; Fowler 1992:110–13; Walsh, 1992:53–69; Sommer, Chapter 10). Collecting buildings in Sweden and Denmark was originally motivated by the appreciation of the buildings themselves and by a fear that the crafts and skills that went into their creation would be lost. Ullandhang Open Air Museum was funded by central government as a symbol of Norwegian nationhood looking back to the 'Golden Age' of the migration period from which Viking society evolved (Taylor 1990:15–17). Lygra was created to promote an image of the 'good life', promoting a simple life-style. At the Cornwall celtic village the reconstructed iron age village has been created for educational use, but with an underpinning philosophy of 'New Age" and

"Green" values' (Wood 1994). The Scandinavian approach has influenced a number of reconstructions in the United Kingdom. The underlying agenda may be to revitalize an area of agricultural decline, to preserve a landscape, to reconstruct history, to present an environmental message or to preserve traditional skills for the future. The motivation behind reconstructions has evolved over the last twenty years. What may have begun primarily as scientific or academic research often evolves into education and interpretation for adults in order to fund continued research as at Butser (Reynolds 1979:7, although see Reynolds, Chapter 7 for a revision of this view).

The furnishing of interiors and the use made of reconstructed buildings are fundamental to their continued survival and depends on the original motivation behind their creation. Again, drawing on the Danish tradition, 'live-ins' have become a popular use of reconstructed structures (Wood 1994). However, the quality and 'authenticity' of this experience and the props used vary according to the underlying motivation, whether it is educational or commercial. The buildings reconstructed on site at Stansted Mountfitchet Castle in Essex are let down by poor standards in the props used to furnish the interiors. While the buildings themselves are of tolerable standard, reflecting a degree of research and craftsmanship, the interiors are furnished with a tawdry mixture of ethnographic souvenirs, bric-a-brac, nineteenth-century agricultural implements, shop mannequins from the 1950s and 1960s and reproduction armour ranging in style from the twelfth to sixteenth centuries. This would not matter, but for the fact that the reconstruction has pretensions to authenticity citing the use of geophysical techniques, historical research and the meeting of conditions for scheduled monument consent as proof of the academic integrity of the project, which aims to present 'a frozen moment in time' (Blockley 1991:28-35).

Most archaeological reconstructions are in idyllic rural locations. Within a twentieth-century urban context reconstructed sites can have an air of unreality about them. The reconstructed Roman Fort Gateway at Arbeia, South Shields is a case in point, incongruously placed among nineteenth-century terraced housing and a late twentieth-century housing development. Similarly, Stansted Mountfitchet is approached through and overlooks a semi-derelict railway goods yard. Arbeia, South Shields is an interesting early example of the preservation and interpretation of Roman military remains as an example of civic regard for the archaeological heritage. The site has been on continuous public display since 1875 in the 'Roman remains park' and has been subject to minimal academic approaches to presentation over the years. However, the creation of the gateway (Figure 1.2) aroused considerable controversy and was subject to a public inquiry in 1985 (pers. comm., P. Bidwell; Bidwell 1987). Academic concern hinged around the fact that no complete military gateway survives anywhere in the Roman empire. Once built, however, the gateway has assumed a validity which belies the lack of evidence, and has already been



Figure 1.2 The reconstructed gateway at Arbeia, South Shields

imitated in the unlikely setting of derelict urban land in the centre of Manchester at Castlefields Urban Heritage Park. Here the gateway (Figure 1.3) sits incongruously against a nineteenth-century Gothic crenellated railway viaduct and close by the Bridgwater Canal Basin, the first in the world and a site of genuine heritage significance in its own right.

At Cockley Cley, the 'Iceni Village' in Norfolk, the initial motivation behind the project was didactic and humanist—rather than purely for commercial gain—unfortunately it was based on unsound scholarship. It rather grandiosely claims to be an 'Iceni Village as it was in 60 AD', and also lays claim to a link with a specific historical figure, Boadicea, and her revolt. The site of the 'village' (itself a medieval concept) is only 48 metres long which is far too small to be representative of a typical late Iron Age settlement. Whereas circular buildings are more typical of the British Iron Age, rectilinear buildings are more common on the mainland of northern Europe coming from a continental tradition. It includes a reconstructed long house as the communal building. The gateway (Figure 1.4) is adorned with plastic 'blood-soaked' heads on posts while the interior contains the very popular 'snake pit' where 'enemies were thrown'. Further, the language of the site guide and information panels are heavily influenced by Scandinavian mythology of the early medieval period, popular accounts of Scandinavian Bronze Age excavations and the exploits of Biggles



Figure 1.3 The reconstructed gateway at Castlefields Urban Heritage Park, Manchester

(see Johns 1954). This would not matter but for the site's claims of authenticity and its regular use for school visits (Aldridge 1989:65–7; Walsh 1992:105) and promotion in 'quality' newspapers.

ECOMUSEUMS AND THE COMMUNITY DEVELOPMENT APPROACH TO INTERPRETATION

Within the tradition of European museums, a distinction is drawn between the ecomuseum (Rivière 1985) and the open air museum of buildings or folk life. The latter is firmly rooted in the Scandinavian tradition of museums discussed above, where archaeological reconstructions take their place beside buildings dismantled and redisplayed within a museum, in the same way that artefacts are displayed within a collection. The Ecomuseum movement, which grew up in France during the late 1960s and 1970s, attempted to interpret the whole landscape and to enable the community to represent itself to visitors. The motivation behind the Ecomuseum movement was to give the community a voice and a sense of pride in itself and its environment. Its aim was to interpret the social history, landscape and archaeology of the region and its community *in situ*. The movement developed as a reaction against the centralized bureaucracy of the French museums hierarchy (Engström 1985; Hubert 1985). Above all, the movement attempted to break down the barriers between the professional curators and the community, to celebrate a sense of place and to



Figure 1.4 The Cockley Cley gateway

empower local people with control over the representation of their cultural identity (Hudson 1992).

Within archaeological interpretation this approach has also been adopted for the presentation of sites and landscapes over the last five to ten years. The community development approach aims to create or enhance a sense of place for individuals and to establish what is significant and valued in the environment or heritage of a community. Common Ground, the environmental pressure group, have been particularly active in promoting this approach (Kihg and Clifford 1987). Common Ground has helped hundreds of local communities to create 'maps' of their own localities, focusing on those features of the built and natural environment which are important to them. These 'maps' have taken the form of quilts, embroideries and all manner of artistic expression.

Recently Common Ground has been raising awareness of 'local distinctiveness', those elements of our environment and customs which distinguish our local identity, but which may not be protected in officially designated conservation areas (Clifford and King 1993). Within museums a parallel tradition has been the creation of the 'Peoples Shows' at Walsall, Leicester and Springburn in Glasgow. In the summer of 1994, forty-eight 'Peoples Shows' took place at venues all over the UK where individuals had the opportunity to display their personal collections whether it be ties, beer mats or frogs. Curators of social history within museums have empowered individuals and sections of the community to present what is important for their identity to a wider audience to validate their activity. Community arts groups throughout the UK have been particularly active over the last five years. Central to the community arts and community development approach is the involvement of people in the process of reconstruction rather than the importance of the finished product. This approach has great merit for reconstruction because it enables people to question the evidence, consider the alternatives and see the reconstruction not as an end in itself, but merely the product of a series of deliberations. Further, it also has the benefit of providing the local community with a sense of pride in their own skills and own achievements. The longevity of the reconstruction becomes less critical in this approach since it should not be viewed as permanent and static. The process of reconstruction should be enjoyable in itself and involve people whether school-children or tourists. This approach also responds to Tilden's injunction to provoke and engage rather than instruct (Tilden 1977:9), which is good practice in interpretation and archaeological theory. 'This is our heritage, this is what we value in the environment, this is part of us, this is what we want to share and how we want you to know us' (King and Clifford 1987).

The framework for interpretation is generally a reflection of the professionals' initial academic training as archaeologist, geographer or historian. While this framework might be appropriate for major national monuments and national collections in museums, this is not necessarily the case for the more commonplace and typical of the local heritage of an area. The objective, empirical scientific approach is a reflection of Western academic training—this contrasts with the more personalized spiritual connection felt by aboriginal communities (e.g. Tamepo 1995). Their idea of a sense of place is based on cultural background, oral tradition and experience. The outreach approach to interpreting archaeological sites requires skills in working with communities. Social historians within museums have adopted this new radicalism of working with communities as their new orthodoxy (Fleming *et al.* 1992).

Common Ground see their role as being

[to] promote the importance of our common cultural heritage the familiar local places, local distinctiveness and links with the past: and to explore the emotional value these things have for us by forging practical and philosophical links between the arts and conservation.

They are concerned to explore the relationship between people and their environment through arts and emotional responses. They state that 'very often we do not appreciate our everyday surroundings until we learn that someone else values them' (King and Clifford 1987).

There are important philosophical, social, cultural and political justifications for adopting an outreach approach to archaeological reconstructions. Although it is easier for the archaeological heritage manager to build a single solid reconstruction or create a permanent exhibition which will need little maintenance and management, what the community really wants is changing activities, workshops and programmes of events to encourage them to repeat their visit. In terms of community involvement it is far more informative and engaging to exhibit reconstructions in progress and to provide involvement in processes such as daubing, thatching and the manufacture of wattle hurdles rather than to exhibit a finished watertight structure. Iron Age round-houses, a popular subject for reconstructions, lend themselves well to this approach (Blockley 1991:6–7).

A proposal for a reconstruction suggested within a programme of economic regeneration could suffer rejection by the local community if the project is deemed to be irrelevant to the community and its needs. The passions voiced at the public enquiry into the proposed Roman gatehouse at Arbeia, South Shields, are a case in point. Similarly, at Coalbrookdale the working replica Trevithick locomotive was removed from the grounds of the Museum of Iron in response to local pressure. In this instance the replica steam engine was stopped because of complaints about noise. If, however, the project had involved the local community, particularly its children, they may well have felt a sense of ownership rather than resentment at an initiative imposed upon them. These problems can be overcome by involving local people in the processes of reconstruction and interpretation and hence raising their level of awareness and encouraging them to take an active role in protecting their archaeological heritage. Moreover, the creative responses of the community can be tremendously stimulating and rewarding and provide an extra dimension to the intellectual approaches of the archaeologist. There are a number of different roles that archaeologists can adopt in a community action approach to the presentation of archaeological sites. Above all, field archaeologists, site managers, custodians and museum curators need to adopt a more adventurous attitude as enabler or catalyst.

The author recently devised a new approach to the interpretation and reconstruction of archaeological sites for children in Milton Keynes—a purpose-built new town (Blockley 1993). Within the newly created neighbourhoods the development corporation designated a number of spaces for recreational use as play areas. The author devised an archaeological theme for each of these play areas to reflect the adjacent archaeology and palaeontology and to

provide amusing, educational and innovative landscape features. One play area was designed around a geological theme inspired by the Opthalmosaur (a large, primitive fish) and other large fossils recovered from the blue lias clay during excavations for the lake. Subsequently labelled 'Jurassic Park' the play area contains life-sized casts of fossil skeletons set into earthen banks. The second play area was built beside the earthworks of a deserted medieval village. The play area made extensive use of timber and stone and was designed around the theme of a ruined dovecote, timber hall and giant nine-mens morris board laid out in paying slabs. The third play area is based on Roman pottery kilns found in the area and incorporates designs based on kiln furniture and Roman ceramics. All the constructions have been designed to comply with stringent standards of health and safety for play equipment. The project design envisages information panels and 'discovery-trails' to explain the rationale behind the themes. While these constructions are a physical interpretation of the excavated archaeology, no one would mistake them for anything other than a reflection of that archaeology. At the same time they are also relevant to the fledgling community, provide a tangible link to the area's past communities and are a stimulating play environment for its future.

On the northern edge of Milton Keynes, Bancroft Roman villa was excavated between 1973 and 1986 (Williams and Zeepvat 1994). The site of the villa and its outbuildings was subsequently preserved within a public open space. Towards the end of the excavation plans were devised for the public presentation and reconstruction of the villa. Various proposals were put forward including covering the surviving villa foundations in a modern building and relaying the mosaics over a damp-proof course. However, it was considered 'difficult for visitors to imagine life in a complete Roman building in regular daily use when walking through a modern building looking at small sections of mosaic floor and underfloor heating ducts' (Bancroft Villa Advisory Committee 1983:10). The favoured option was total reconstruction of the villa set in a recreated 'authentic' landscape. Also the interpretation was considered to be inadequate without the creation of the domestic interior as well. Consultants advised a concrete raft laid down to protect the surviving archaeology with the reconstruction built above it. The commissioned feasibility study predicted that 200,000 visitors were needed per annum to break even on costs. Since the park was surrounded by a residential area, the open air museum concept was abandoned on the grounds of disruption to residents nearby.

During 1989 a less ambitious scheme was implemented to 'commemorate' the site of the villa as a landscape feature. Replica foundations were laid out on a raised platform on the site of the original building. Where colourful mosaics had covered the floors, a carpet of grass was sown. This presentation is confusing for visitors because it incorporates the genuine Roman fabric of the ornamental garden pond with pastiche wall foundations. The wall footings are a too faithful replica of the original and according to the Park Rangers, are assumed to be genuine by most visitors. The floor mosaics were all lifted and remain in store

awaiting an appropriate venue for public display. One of the small mosaics was mounted on a wall in the shopping centre in central Milton Keynes.

A few months after the site was officially opened rubbish began to fill the pond, graffiti appeared on the interpretation panels and plants were uprooted from the 'Roman Garden'. It was clear that there was a need for a more imaginative management and interpretation policy. It was not enough merely to reconstruct the walls, produce leaflets and interpretation panels and assume that communication had been achieved. There was a need to promote the site to the public and give it a focus within the community. Further, it was the only publicly accessible Roman site in Buckinghamshire. One direct way of reaching a community is through its children. Accordingly, a project was devised in consultation with five local schools and the local community arts group 'Interaction'. It was a new departure for the archaeology unit using enquiry, art, drama and creativity to inspire children. The project was motivated by, and based on, primary evidence: potsherds, burnt tile fragments, burnt stone and animal bones from the site (Blockley 1993).

The emphasis was on active learning, finding out, handling and questioning the evidence in an exciting and stimulating way. The 250 children from the five local schools were encouraged to use and develop their skills through exploration, investigation, knowledge and understanding. In effect, they became archaeologists, using all the deductive and recording skills used by the professionals. The guiding principle behind the project was that children should be enabled to understand processes rather than absorb facts by rote. Looking at things is good practice, but it is dangerous to think of observation as an end in itself, rather than as a vehicle to promote further enquiry. As a detective searches for clues to solve a crime, so the children searched for clues on site to solve the mystery of the villa.

The young archaeologists systematically plotted, collected and identified evidence from the site and started to question that evidence. Throughout the project the children learnt how to research, to collaborate, to reason and to question. They were encouraged not to think in terms of right or wrong answers, but always to be aware of alternatives. Gradually, they began to understand the limitations of the evidence and how subjective interpretation can be.

The children interpreted the original evidence they found through field walking across the site, sherds of pottery, bone, tile and mosaic tesserae strategically placed by myself in the rooms of the reconstructed villa. The evidence 'planted' on the floors of the reconstructed rooms gave clues to their use. From all this evidence the children worked collaboratively on site and in their schools to produce their version of events on site. They became the interpreters of the sites, the adults acting as enablers. In contrast to the usual dry, academic report produced by archaeologists, the children interpreted the site by writing, designing and performing a play of their own, with adults acting as enablers.

Each school set to work creating reconstructions to illustrate their aspect of the site history and geography. One school researched and built a replica Roman mausoleum. Interestingly, the post-modernist house built on the site of the mausoleum was adapted by the developers from one of their standard range to echo the presumed appearance of the mausoleum. The residents while aware that it was influenced by the archaeology beneath their feet, did not realize that they were living in a replica of a burial chamber. Children researching the native Britons helped to create a life-size round house from willow, daub and thatch on the site of an excavated Romano-British settlement in south Milton Keynes.

Bushfield School set themselves the task of creating a full-size replica of the smallest mosaic on the site and manufacturing enough ceramic tesserae to produce it. The mosaic was incomplete so they worked as experimental archaeologists planning the layout and construction of the design. One group developing the border worked in pairs, the first calling the colour sequence of the next row, while their partner positioned them. The level of co-operation was outstanding. Children negotiated modifications where necessary, to preserve symmetry with others working on similar sections, anticipated each other's need for more tesserae of a particular colour and kept each other serviced with these to ensure maximum efficiency. As sections were completed they were positioned on the base board. The children were triumphant when the exquisite mosaic was fully assembled (Figure 1.5).

For the six weeks leading up to the performance the children worked with community artists, teachers and myself to rehearse the play, produce costumes, props and scenery to present their story and bring the site to life. As well as the large constructions, the children produced 'green' artworks to enhance the site and evoke the lives of people who lived, worked, worshipped and died there. Thankfully the weather was fine for the performance and the dramatic fire show finale went off with the right balance of excitement and control to thrill the large audience.

The enthusiasm generated by the project was infectious. Did it have any long-term value though? Would a more permanent reconstruction have been more appropriate? The intention behind the project was that it would have a greater benefit if it was produced by the children of the local community. By providing them with the skills of the archaeologist and interpreter they would be able to see their familiar park in a new light. Three years later I asked one of the teachers involved in the project to give me her impressions.

The project fired the children's imagination by straight away casting them into the role of archaeologists. The impact of the first visit to the site, where they made genuine discoveries for themselves was tremendous. From day one they were all hooked and enthralled by identifying and interpreting their own evidence. Importantly, they learnt straight away to constantly question the evidence and to



Figure 1.5 Children assembling the replica mosaic on site

seek alternative views. Three years on, in their last year of primary school, the group were asked to recall their impressions of their time at Bushfield. The consensus was that the year they did 'the Romans' was the best ever!

The mosaic survives as a testament to the skill, and creativity of the year of 1990 and continues to inspire future classes. The author observed children playing in the stream at the park two years after the event in role as Taranis (a Romano-Celtic god), perhaps some small indication that children can be gripped by enthusiasms other than for Jurassic Park or Fred Flintstone.

Reconstructions are an invaluable way of reaching and inspiring different sections of the community—whether for commercial, political or didactic reasons. However, they are a powerful tool and need to be used with integrity and imagination. They certainly have the power to deceive, particularly when

significant effort, technical skill and resources are used to recreate the massed effect of an 'authentic' environment replicated in an open air museum. The danger of this approach of course, as epitomized at Ironbridge, is that children may well engage with the replicated Victorian industrial environment manufactured at Blists Hill while ignoring the authentic environment they travel through to reach the museum. Today children are being taught how to read their historic environments and to collate and interrogate primary evidence for themselves (see for example, Corbishley and Stone 1994). The process of reconstruction is a valid analytical tool, it is no less valid than our attempts to interpret and make sense of historical documents. Surely, therefore, it is more appropriate to invest in opportunities to test ideas and create temporary reconstructions which may survive for less than a year, but which generate powerful memories and infectious enthusiasm that persists for life? In this way reconstructions need not become institutionalized, dated and vulnerable to changes in academic fashion, but act as a catalyst for community pride and that voguish concept, sustainable tourism. At a time when large sums of public money are being generated by the National Lottery for investment in heritage capital projects, perhaps more thought should be given to the value of temporary events and processes rather than bricks and mortar.

REFERENCES

- Addyman, P.V. 1989. The Stonehenge we deserve. In *Archaeological Heritage Management* in the Modern World, H.Cleere (ed.), 265–70. London: Unwin Hyman.
- Aldridge, D. 1989. How the ship of interpretation was blown off course in the Tempest: some philosophical thoughts. In *Heritage Interpretation: the natural and built environment*, D.Uzzell (ed.) 64–87. London: Belhaven.
- Arnold, B. 1990. The past as propaganda: totalitarian archaeology in Nazi Germany. *Antiquity* 64, 464–78.
- Auzas, P.M. 1979. Eugène Viollet le Duc 1814–1879. Paris: Caisse Nationale des Monuments Historiques et des Sites.
- Bancroft Villa Advisory Committee 1983. Reconstruction proposals for the Bancroft Villa. Unpublished manuscript, Milton Keynes District Council.
- Bidwell, P. 1987. Recent excavations of the Roman fort at South Shields. *Rescue News* 42, 8.
- Bloch, T. 1959. Les couvertures de la cité de Carcassonne avant la restauration du XIXe siècle. In *Les Monuments Historiques de la France*, 184–90. Paris: Caisse Nationale des Monuments Historiques et des Sites.
- Blockley, M. 1986. The Prestatyn excavation: education, presentation and video. In *Presenting Archaeology to Young People*, S.Cracknell and M.Corbishley (eds), 17–23. London: Council for British Archaeology.
- Blockley, M. 1991. New trends in the interpretation and presentation of archaeological sites. Unpublished Masters Dissertation: Leicester University.
- Blockley, M. 1993. The Bancroft Villa thriller and Jurassic Park: environmental interpretation. *Bulletin of the Centre for Environmental Interpretation* 8, 14–15.
- Borun, M. and K.Flexer 1983. *Planets and Pulleys: studies of class visits to science museums*. Washington, DC: Association of Science Technology Centers.

Brindle, S. and R.Thomas 1990. The Globe Theatre. Conservation Bulletin February, 8-9.

Clifford, S. and A.King (eds) 1993. *Local Distinctiveness: place, particularity and identity.* London: Common Ground.

Coles, J. 1979. Experimental Archaeology. London: Academic Press.

Corbishley, M. and P.G.Stone 1994. The teaching of the past in formal school curricula in England. In *The Presented Past: heritage, museums and education*, P.G.Stone and B.L.Molyneaux (eds), 383–97. London: Routledge.

Debaye, D. and C.Duchadeau-Kervazo. 1994. Lascaux II—Le Thot: deux structures touristiques a vocation multiple. In The multifaceted aims of reconstruction sites: archaeological evidence, reconstruction of sites, education and public awareness. Unpublished precirculated papers, WAC-3: Theme 9, New Delhi, India.

Ellison, M. 1996. Bard's Verona to raise curtain at New Globe. The Guardian.

Engström, K. 1985. The Ecomuseum concept is taking root in Sweden. *Museum* 148, 206–10.

Fleming, D., C.Paine and J.Rhodes (eds). 1992. Social History in Museums: a manual of curatorship. London: HMSO.

Fowler, P. 1992. The Past in Contemporary Society (Then and Now). London: Routledge. Freeman, R. 1989. The Discovery Gallery: discovery learning in the museum. Ontario: Royal Ontario Museum.

Goldsmith, C. 1991. A Guide to Cockley Cley. Suffolk: Orchard Press.

Hobley, B. 1982. Roman military structures at 'The Lunt' Roman fort. In *Structural Reconstruction: approaches to the interpretation of the excavated remains of buildings*, P.Drury (ed.), 223–73. Oxford: British Archaeological Reports.

Hobsbawm, E. 1987. Introduction: inventing traditions. In *The Invention of Tradition*, E.Hobsbawm and T.Ranger (eds), 1–14. Cambridge: Cambridge University Press.

Hodder, I. 1991. *Reading the Past: current approaches to interpretation in archaeology.* Cambridge: Cambridge University Press.

Horne, D. 1984. The Great Museum: the re-presentation of history. London: Pluto Press. Hubert, F. 1985. Ecomuseums in France: contradictions and distortions? Museum 148, 186–90.

Hudson, K. 1992. The dream and the reality. *Museums Journal* 92, 27–31.

Jackson, K. 1991. The reconstruction of Shakespeare's Globe. *Interpretation Journal* 47, 7–8.

Johns, W.E. 1954. Biggles of the Fighter Squadron. London: Random House.

Johnson, P. and B.Thomas 1992. *Tourism, Museums and the Local Economy.* Aldershot: Edward Elgar.

Jokilehto, J. 1995. Authenticity: a general framework for the concept. In *Proceedings of the Nara Conference on Authenticity*, 17–34. Paris: UNESCO.

Kennedy, J. 1990. *User Friendly: hands on exhibits that work*. Washington, DC: Association of Science Technology Centers.

King A. and S.Clifford. 1987. Holding Your Ground. Aldershot: Wildwood House.

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

Merriman, N. 1991. Beyond the Glass Case: the past, heritage and the public. Leicester: Leicester University Press.

Prentice, R. 1993. Tourism and Heritage Attractions. London: Routledge.

Reynolds, P. 1979. Iron Age Farm: the Butser experiment. London: British Museum.

Rivière, G. 1985. The Ecomuseum—an evolutive definition. *Museum* 148, 182–3.

Rylatt, M. 1986. Look and learn at the Lunt. In *Presenting Archaeology to Young People*, S.Cracknell and M.Corbishley (eds), 45–7. London: Council for British Archaeology. Samuel, R. 1994. *Theatres of Memory*. London: Verso.

- Silverstone, R. 1988. Museums and the media: a theoretical and methodological exploration. *International Journal of Museum Management and Curatorship* 7, 231-41.
- Swain, H., S.Blatherwick, J.Bowsher and S.McCudden 1991. Shakespeare's theatres. *Current Archaeology* 9, 185–9.
- Tamepo, E. 1995. Maori authenticity and cultural diversity in New Zealand (Aotearoa). In *Proceedings of the Nara Conference on Authenticity*, 167–74. Paris: UNESCO.
- Taylor, G. 1990. Interpretation in Scandinavia. *Interpretation Journal* 46, 15–17.
- Tilden, F. 1977. *Interpreting our Heritage*. Chapel Hill, NC: University of North Carolina Press.
- Trinder, B. 1985. A philosophy for the industrial open-air museum. In *Report of the Conference of the Assodation of European Open Air Museums*, 1984, C.Ahrens (ed.), 87–95. Hagen: Westfalische Freilichtmuseum.
- Walsh, K. 1992. The Re-Presentation of the Past: Museums and Heritage in the Post-Modern World. London: Routledge.
- Washburn, D. 1990. Curatorial or 'native' categories: their use in visible storage. *Curator* 33, 63–71.
- West, B. 1988. The making of the English working past: a critical view of the Ironbridge Gorge Museum. In *The Museum Time Machine*, R.Lumley (ed.), 36–62. London: Routledge.
- Williams, R. and R.Zeepvat 1994. Bancroft: a Late Bronze Age/Iron Age settlement, Roman villa and temple mausoleum. Aylesbury: Buckinghamshire Archaeological Society.
- Wood, M. 1991. Iraq, cradle of civilisation. From Legacy, Central Television (August).
 Wood, J. 1994. The Cornwall Celtic village project. Unpublished paper presented to the Society for the Interpretation of Britain's Heritage Conference 'Presenting the Past': Exeter.

2 Reconstruction versus preservation-in-place in the US National Park Service*

JOHN H.JAMESON JR. AND WILLIAM J.HUNT JR.

INTRODUCTION

The National Park Service (NPS), United States Department of the Interior, is the government's leading preservation agency to whom many turn for advice and example. However, NPS policies for reconstruction have always been a source of controversy among professionals within the agency. NPS policies have evolved since the 1930s to the present standards as outlined in the Secretary of the Interior's Standards for Reconstruction and Guidelines for Reconstructing Historic Buildings (DOI 1995) and the Guidelines for Cultural Resource Management (NPS 1994). The latter document calls for reconstructions to occur only after thorough archaeological investigations have been carried out. Archaeological research provides details of architectural design not available in existing records and contributes further information on the uses and cultural contexts of architectural features and material objects. The former policy document defines reconstruction as:

The act or process of depicting by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

(DOI 1995:1)

Reconstruction includes measures to preserve any remaining prehistoric or historic materials, features, and spatial relationships. It is based on the accurate duplication of features documented through archaeology, archival research, or physical evidence, rather than on conjectural designs. In most cases, methodology is not restricted to the technology of the period (although there are common exceptions to this, such as when prehistoric flint knapping techniques are presented or when wrought nails and hewn logs are used in the reconstruction of a building). By inference, reconstructions may include the

^{*} Figures in this chapter appear courtesy of the US National Park Service.

use of modern materials and tools only if these do not conflict with the purpose of 'replicating its appearance'.

Reconstructions differ from restorations in that they involve new construction of various components of the cultural landscape, such as buildings, huts, towns or villages, earthworks, living areas, trails, and roads. Reconstructions have addressed a wide temporal range including sites such as the prehistoric Great Kiva (Aztec Ruins National Monument) in New Mexico and a ceremonial earthlodge (Ocmulgee National Monument) in Georgia, to historic period buildings (mostly wooden, but also wattle and daub [a building material composed of an interweaving of rods and twigs overlaid with clay], stucco, stone, adobe, and brick), trading posts, and forts of the seventeenth, eighteenth, and nineteenth centuries. A reconstruction is full-scale and on the original site (NPS 1994:107–8). A reconstruction is clearly identified as a contemporary recreation (DOI 1995:166). A reconstructed cultural landscape re-creates the appearance of the non-surviving cultural landscape in design, colour, textures, and, where possible, materials.

Reconstructions in education and public awareness

The 'Parks as Classrooms' programme is a special outreach programme of the NPS that seeks to enrol local and regional schools in learning activities using park resources. Scores of these programmes have been developed and implemented at NPS sites throughout the country. Reconstructed components at parks are important elements in providing realism, temporal contexts, and spatial relationships for the public interpretations for visitors and formal education programmes. As an example, at Ninety-Six National Historic Site, where a 1781 fort has been reconstructed (Figure 2.1), programmes include special hands-on activities for schoolchildren during the 'French and Indian War Era Encampment' and 'Revolutionary War Days' programmes held in the Spring and Fall. More importantly, a 200-page Teacher's Guide, containing five-subject lesson plans (geared to the South Carolina state curriculum standards) and outlines for five on-site nature/science activity stations, is in its third year of use.

POLICY DEVELOPMENT

Current policies notwithstanding, the National Park Service has sometimes taken an ambivalent stand on the notion of using reconstructions as preservation, interpretation, or educational tools. When the NPS was created in 1916, it was chartered

[to] conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.¹



Figure 2.1 Reconstructed 1781 fort at Ninety-Six National Heritage Site, South Carolina. (Note that the fort incorporates existing barn buildings. According to park management, these structures were only partially reconstructed because the architectural details are unknown.)

But subsequent government mandates for preservation and interpretation of cultural resources have resulted in a high degree of conflict and controversy both inside and outside the NPS on the best means of interpreting and managing its historic properties (Pitcaithley 1989; Huey and Hunt 1990; Mackintosh 1990; Bennett 1992; Hunt 1992).

The formation of an American archaeological preservation ethic

The philosophical arguments for and against the practice of reconstructing historical and archaeological sites in the USA are rooted in the early developments of the historic preservation movement. The first wave of preservation sentiment

was associated with the rise of public concern in the early and mid-1800s for the preservation of places and sites associated with the American Revolution of 1775–1783.

Interest in archaeological preservation per se did not gain impetus until the late 1870s and early 1880s, when reports by the Smithsonian Institution and others raised public awareness of the prehistoric pueblos in the North American southwest. The public became increasingly alarmed over the wide-spread looting that was damaging and destroying these magnificent ruins. Increasing concern for the preservation and management of vanishing natural and historical sites resulted in the formation, in 1916, of the National Park Service within the Department of the Interior. The new agency was charged with the task of managing and protecting the federally-owned sites. In 1933, the NPS participation in historic sites archaeology was greatly enhanced when it took over management of all federally-owned American Revolutionary and Civil War (1861–1865) battlefield sites, parks, monuments, and cemeteries. Coincidentally, the following year, paralleling advancements in public awareness and signalling the development of archaeology as a professional discipline, a group of archaeologists formed the Society for American Archaeology (SAA). One chartered objective of SAA was 'advocating the conservation of archaeological data'. Other major events and developments, such as the opening of Colonial Williamsburg by the Rockefeller foundation in 1933 (see Hume, Chapter 5), and passage of the Historic Sites Act of 1935, furthered the cause of historic preservation and brought public, private, and professional interest in American archaeology to new levels.

At Colonial Williamsburg, a reconstructed historic community of the 1770s was based on detailed historical and limited archaeological research. These reconstructions proved to be immensely popular with the public. The reconstruction technique at Colonial Williamsburg involved recreating over 450 buildings in an effort completely to restore the town. Lack of specific information on a particular building presented no problem to project designers and architects, who relied on architectural precedents and an examination of surviving colonial buildings in the region to invent building types based on general architectural practices of the period (in this case, the middle to late eighteenth century). These planners and architects saw life in eighteenth-century Virginia as more homogenous and genteel than do historians today (Kimball 1935; Chappell 1989:59-61; Hume, Chapter 5). This popular, yet conjectural, technique became the standard applied to hundreds of reconstructions in the USA for decades to come. It pervaded and guided the work of the National Park Service and other federal agencies in scores of 'New Deal' public works projects carried out in the years preceding World War II (Pitcaithley 1989:9).

The Historic Sites Act expressed the federal government's concern for historic sites by authorizing the NPS to locate, conduct research, acquire, preserve, restore, maintain, reconstruct, commemorate, and interpret historical and archaeological sites, buildings, and objects of national significance. This law was the impetus

for creating an entirely new archaeological research entity in the United States after World War II.

Following the war, an ambitious government construction programme for flood control, irrigation, hydroelectric installations, and navigational improvements was begun along many river basins across the country. Much of this work occurred in regions which were archaeologically unexplored. However, a few spectacular archaeological sites had been found in these areas and the scientific community faced the likelihood that considerable archaeological and palaeontological information would be irretrievably lost. In response, the NPS and the Smithsonian Institution, in collaboration with the US Bureau of Reclamation and the US Army Corps of Engineers, devised an inter-agency agreement in 1946 to locate historic and prehistoric sites in threatened areas and to salvage as much information as possible prior to their inundation and destruction. Work carried out in the late 1940s to early 1960s resulted in the recording of thousands of previously unknown sites. This was the beginning of the phenomenon in America that was termed 'salvage archaeology' and later expressed in the emerging preservation ethic as 'cultural resource management' or CRM.

By the late 1940s and 1950s, historic preservation as the commemoration of sites and structures associated with famous people and events had entered the mainstream of public consciousness. The resulting collection of national and state historic sites, monuments, and parks, as well as an abundance of privately administered buildings and sites, became standard fare for an increasingly mobile American public; the public was becoming increasingly enamoured of the physical remains (and representations thereof) of its history (Pitcaithley 1989:4). Two of the more notorious of these commemorations in the National Park Service were the 'reconstructions' at Fort Caroline National Memorial, a sixteenth-century French fort in Florida, and Fort Clatsop National Memorial, established to commemorate the Lewis and Clark Expedition in 1803–1806. They are 'notorious' among modern NPS professionals because both were attempted 'reconstructions' based on sparse documentary records and little or no archaeological research.

Significant national legislation in the 1960s and 1970s, most notably the National Historic Preservation Act of 1966 and Archaeological and Historic Preservation Act of 1974, eventually exerted a transformational effect on the character of US archaeological research and preservation. The 1966 Bill furnished the foundations for a system of resource protection centring upon a National Register of Historic Places and provided a mechanism for the development of state-level historic preservation programmes. The 1974 Act extended the provisions of earlier legislation that had mandated the preservation of historical and prehistoric archaeological data which would otherwise have been lost during the construction of federal reservoirs. It applied to all federal construction activities as well as federally licensed or assisted activities which had the potential to destroy archaeological data. The responsibility for developing federal regulations to enforce these Acts was assigned to the NPS.

The NPS drew up a comprehensive set of instructions for its managers to follow in implementing these laws and regulations. This regularly updated guideline, known as NPS-28, contains procedures for locating, identifying, evaluating, preserving, managing, and interpreting cultural resources in the National Park System. NPS-28 (NPS 1994) instructs managers 'to take positive action to perpetuate unimpaired...cultural resources'.

The emergence of reconstruction as a controversial alternative for preservation and interpretation

Against this backdrop of a developing preservation ethic, a small but vocal cadre of scholars (architectural historians, historians, and archaeologists) opposed the broad use of reconstructions (or 're-creations' as some have termed it). To these scholars, reconstructions labelled or advertised as history are 'lies' and 'pious frauds' (Pitcaithley 1989:1). Starting in the 1930s, there has been a steadily growing outcry within the NPS, especially among the cultural resource professional staff, to severely limit, if not abolish altogether, the use of reconstructions as an interpretive device. The debate has been between these conservative preservationists and others in the historic preservation field, such as site managers, planners, and professional interpreters. NPS Chief Historian Verne Chatelain, during the meeting of the NPS Historic Sites Advisory Board in 1936, argued that the visitor to historic sites is entitled to 'a faithful and not a distorted picture of historical conditions...as long as there is no sacrifice of the source materials of history' (Pitcaithley 1989:10–11). He also stated that no one has the moral right to destroy existing scientific data for the sake of reconstruction or development.

Commenting on the 1938 reconstruction of Pennsbury, the home of William Penn near Philadelphia, Leicester Holland, a leading historic preservation scholar, echoed this view by writing:

Our current practice of neglecting our historic records, while substituting sentimental pictures of an imaginary past, is an expression of cultural callowness, if not stupidity...the result is an interpretation based on all known facts, but still it remains a myth, a poem, if you like, but certainly not history.

(Quoted in Pitcaithley 1989:2)

Aubrey Neasham, Regional Historian in Sante Fe, articulated this conservative philosophy:

The argument is put forth by some that the visiting public goes to an historic site to get as full a picture as possible. From that standpoint, many consider it necessary to restore and reconstruct the historic setting in full. What results is an illusion. The illusion not only affects those who see it today, but also those who will see it in the future, even to the extent that what we have reconstructed and restored may be called the work of our predecessors. Such reconstruction and restoration is not

only artificial and unreal, but scientifically unsound. No matter what we do, we cannot supply in exact detail or spirit that which was done before us.

(ibid.: 8-9)

These scholars were reacting to a growing number of historic preservation *faux pas* that had occurred in the USA by the 1930s. The most notorious was the reconstructed 'replica' of George Washington's birthplace in Westmoreland County, Virginia. This was a grand structure that was handed over to the NPS in 1932. To the public's eyes and to those of the US Congress, this imposing, one and a half storey brick structure was befitting for the first home of the first President and Founding Father. To the chagrin of NPS historians, the reconstructed building was discovered to be three times larger than the original foundations, was oriented perpendicular to the actual alignment of the foundations (to allow for a better vista of the lawn and stream bottom), was of the wrong shape (rectangular instead of U-shaped), and was based on practically no documentary or archaeological evidence. Further, after carrying out extensive archaeological investigations, the National Park Service determined that this blunder of a reconstruction was actually located on the foundations of a small outbuilding, the real U-shaped manor house birthplace being located 100 feet to the south (Pitcaithley 1989:6).

National Park Service historians and administrators, embarrassed by this romanticized and factually corrupt birthplace, vowed to avoid such situations in the future. In 1936, the NPS Historic Sites Advisory Board adopted a general restoration policy that, while not ruling out reconstructions, strongly endorsed a conservation ethic. In 1937, the Board developed a policy statement that recognized conflicting aesthetic, archaeological and educational motives in the debate to reconstruct or preserve.

The ensuing policies were conservative in nature, stressing the preservation of original material over restoration work. They included two adages that were repeated by preservationists for decades. The first quoted French archaeologist A.N.Didron's 1839 dictum: 'It is well to bear in mind the saying: "Better preserve than repair, better repair than restore, better restore than construct" with the ultimate guide to any of these actions being 'the tact and judgment of the men in charge' and 'It is generally better to retain genuine old work of several periods, rather than arbitrarily to "restore" the whole, by new work, to an aspect at a single period.' But by leaving the issue of reconstruction to 'the tact and judgement of the men in charge', the Advisory Board provided no concrete guidance to future debates over the pros and cons of reconstruction. As a result, archaeological information in NPS-managed historic sites often fell victim to rushed excavations and narrow research goals as NPS planners hastened to embrace reconstruction under a cloud of controversy (Pitcaithley 1989:11).

Countering this conservative philosophy, however, were directives from Congress contained in the Historic Sites Act of 1935. As we have seen, this Bill specifically authorized reconstruction as a viable means of site interpretation,

and reconstruction continued to be at the forefront of NPS interpretation plans. Popular expressions of historic preservation and reconstruction spurred by the likes of Colonial Williamsburg resulted in questionable reconstructions, of which many were handed to the NPS to manage by the US Congress. Although NPS often supplies background information and testimony regarding a site's historical importance, Congress uses its own discretion in formulating the 'enabling' legislation that creates a unit of the National Park System.

Notwithstanding the Congressional mandates for management and interpretation, reconstruction continued to be opposed by advocates for preservation inside and outside the NPS who recognized that reconstruction inevitably involves the destruction of irreplaceable archaeological evidence. They argued for interpretive alternatives, particularly for those sites lacking physical remains. Reconstruction as an interpretive tool was allowed, but also severely restricted, in a 1968 redefinition (predecessor to *Management Policies*, NPS 1975) of NPS policy for prehistoric and historic sites. Reconstruction was determined to be permissible if the following conditions were met:

- 1 All or almost all traces of a structure have disappeared and its recreation is essential for public understanding and appreciation of the historical associations for which the park was established.
- 2 Sufficient historical, archaeological, and architectural data exist to permit an accurate reproduction.
- 3 The structure can be erected on the original site or in a setting appropriate to the significance of the area.

The term 'reproduction' used in item 2 is a close synonym to 'reconstruction' as currently defined by NPS. It is not surprising that, in the late 1960s, a master planning document created for one controversial site, Fort Union Trading Post National Historic Site, espoused partial reconstruction as a primary objective (see below).

However, with passage of the Archaeological and Historic Preservation Act in 1974, with its strong dictums for protection and conservation, NPS policy shifted further away from advocating reconstructions. One of the chief arguments against reconstructions was based strictly on economics; reconstruction was viewed as taking monies away from projects which desperately needed preservation funding. By the mid-1970s, the argument had been placed on a firm preservation footing with concern for impacts of development and construction upon archaeological sites. The NPS 1975 Management Policies document (NPS 1975) stated that reconstruction would only be allowed when:

- 1 There are no significant preservable remains that would be obliterated by reconstruction.
- 2 Historical, archaeological, and architectural data are sufficient to permit an accurate reproduction with a minimum of conjecture.
- 3 The structure can be erected on the original site.

4 All prudent and feasible alternatives to reconstruct have been considered, and it is demonstrated that reconstruction is the only alternative that permits and is essential to public understanding and appreciation of the historical and cultural association for which the park was established.

(Mackintosh 1990:7)

Although these changes made it more difficult for the NPS to engage in site reconstruction than under the 1968 policy, the requirement mandating reconstruction on site was unfortunate in that it allowed managers and planners very little discretion as to the location of a reconstruction. The 1968 policy allowed off-site reconstruction and the potential for site preservation, whereas the 1975 policy statement specifically mandated reconstruction on the actual site, thereby increasing the likelihood that archaeological resources would be destroyed.

The 1980s and 1990s have seen an increasing concern among both management and professional staff that interpretation in the parks was being deprioritized in favour of modern demands for law enforcement and property maintenance. With this renewed interest in interpretative and educational values, reconstructions came to be viewed in a more positive light as feasible interpretive alternatives. Under the influence of the pro-reconstruction NPS Director William Penn Mott, Jr, *Management Policies* (NPS 1988) was revised to state that reconstructions are permissible when:

- 1 Reconstruction is essential to permit understanding of the cultural associations of a park established for that purpose.
- 2 Sufficient data exist to permit reconstruction on the original site with minimal conjecture.
- 3 Significant archaeological resources will be preserved *in situ* or their research values will be realized through data recovery.

The new (and present) policy established, as a basic principle, that:

anything of historical appearance that the National Park Service presents to the public in a park will be either an authentic survival from the past or an accurate representation of that which formerly existed there. Reconstructions and reproductions will be clearly identified as such.

It also stated that a vanished structure will not be reconstructed to appear damaged or ruined and that general representatives of typical structures (like Colonial Williamsburg) will not be attempted. Today's preservation conservatives are particularly annoyed by the allowance for archaeological data recovery (item 3 above). They say that the present policy is 'selling out' the resource to political and economic pressures (Mackintosh 1990:9, 14).

RECONSTRUCTIONS IN THE NATIONAL PARK SYSTEM

Albeit that policy statements have historically steered the NPS away from reconstruction as a means of interpreting historic sites, historically, the actual treatment of historic sites has tended more towards interpretation via reconstruction rather than preservation-in-place. Reconstruction as an interpretive device was used very early in NPS history. Pipe Spring National Monument, for example, was acquired by the NPS in 1924, with restoration of standing structures and reconstruction of ruins initiated the following year. This was followed in the 1930s with the reconstructions at George Washington Birthplace National Monument and Colonial National Monument (sites of Jamestown and Yorktown) in Virginia, Morristown National Historic Park in New Jersey, and Ocmulgee National Monument in Georgia. More conjectural techniques exemplified at Colonial Williamsburg were employed at reconstructions of other eighteenth-century sites such as at Pennsbury; fur trade buildings at Grand Portage National Monument; a log hospital, an earthen fort, and several soldiers' huts at Morristown; and the frontier outpost of Fort Loudoun, Tennessee, to mention but a few.

As we have seen, later reconstructions have been subjected to higher levels of scrutiny regarding authenticity and 'truth' in public presentations. More recent reconstructions have always followed detailed archaeological investigations, such as at Fort Vancouver National Historic Site, Bent's Old Fort National Historic Site, Ninety-Six National Historic Site, and Andersonville National Historic Site.

PREHISTORIC SITE RECONSTRUCTIONS

Although not nearly as numerous as the historic period sites, a number of prehistoric sites (dating generally prior to AD 1500) have been reconstructed or restored. Many of these, notably the southwest pueblo sites, were done in the early or first half of the twentieth century before coming into the National Park system and usually represent a combination of reconstruction (new materials meant to recreate the appearance of a non-surviving site or feature) and restoration (re-creation or repair of a surviving site or portion of a site) using data from limited archaeological work and conjecture. The preservation work done at these structures would not meet the current NPS definition or standards for reconstruction.

Earthen mound sites of the Lower Mississippi Valley and Southeast

Many distinct cultures of prehistoric people, drawn by the bountiful wildlife and fertile earth, made their homes in major river valleys for thousands of years before the first Europeans arrived. As early as 4000 BC, when ancient Egyptians were erecting stone pyramids, Native American Indians in the Lower Mississippi Valley began establishing communities with large arrangements of earthen

mounds. The mound-building cultural tradition eventually spread into many parts of southeastern North America.

Ocmulgee National Monument, Georgia

Dating from the Mississippian period (c. AD 900–1400), Ocmulgee is one of the few prehistoric mound sites in the National Park System and the only one to date with significant attempts at public interpretation. At Ocmulgee, a prehistoric earthlodge was 'restored' (Figure 2.2) in 1937 within a concrete and steel protective shell (Figure 2.3) under the direction of an NPS historical architect following careful, albeit incomplete, archaeological excavations and recording (Fairbanks 1946:94–108). The earthlodge was a ceremonial earthen structure that stood on the north side of the Mississippian village. It likely served as a meeting place for the town's political and religious leaders. The clay floor is about a thousand years old.

Other mound sites

Other significant sites, some with reconstructed habitation structures, are managed and interpreted for the public by the States: for example, Cahokia Mounds in Illinois, Moundville in Alabama, Pinson Mounds and Chucalissa in Tennessee, and Etowah Mounds in Georgia. The Chucalissa site contains two mounds and a plaza area surrounded by six reconstructed thatched houses (Kwas and Mainfort 1996:34–8).



Figure 2.2 Reconstructed earthlodge at Ocmulgee National Monument, Georgia



Figure 2.3 Ongoing reconstruction of Ocmulgee earthlodge. (Note exposed concrete and steel protective shell.)

Pueblos in the Southwest

Pueblo is the Spanish name for the indigenous people who occupied stone or adobe community houses in more than eighty villages (pueblos) in the southwestern USA. They are descendants of the prehistoric (c. AD 1200s) cliff-dwelling Anasazi peoples noted for their skilled craft in pottery, basketry, weaving, and metalworking. They established villages in northern and western New Mexico, northeast Arizona, Utah and Colorado. Also present at many of these sites is archaeological and architectural evidence of earlier (c. AD 400–700) pithouses with kivas (underground or partly underground chambers used for ceremonies or councils) (e.g. Figure 2.4). The Pueblo cultural tradition, the oldest north of Mexico, continues to be maintained by the present-day Hopi, Zuñi and Acoma pueblos.

Aztec Ruins National Monument, New Mexico

Aztec Ruins is one of the most significant sites affiliated with the Chaco and Mesa Verde Anasazi or Ancestral Pueblo cultures. The monument was established in 1923 and designated a World Heritage Site in 1987. The Great Kiva at Aztec has been restored and re-roofed by NPS (Figure 2.5). The original total reconstruction was supervised by archaeologist Earl Morris in 1934. Although Morris maintained that the reconstructed Great Kiva was as close to

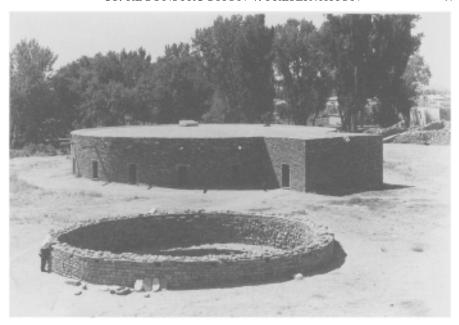


Figure 2.4 The ruins of two twelfth-century ceremonial kivas of stone masonry at Aztec Ruins National Monument, New Mexico

a reproduction of the original as he could make it, there were several configurations that he could have chosen; we know that it was 'remodelled' at least once by the ancestral Pueblo people. According to Barry Cooper, the Superintendent at Aztec Ruins National Monument, some modern archaeologists dispute Morris' findings and the accuracy of the reconstruction (pers. comm., 23 April 1996).

Mesa Verde National Park, Colorado

Established by Congress on 29 September 1906, Mesa Verde is the first National Park set aside to preserve the works of people. Mesa Verde National Park was also designated as a World Heritage Cultural Site on 8 September 1978 by UNESCO. These pre-Columbian cliff dwellings (e.g. Figure 2.6) are the most notable and best preserved in the United States. In 1966, Pithouse C (Room C) was reconstructed at Step House (Figure 2.7) based on archaeological work at the site from the 1890s, 1920s, and 1960s, and from wood and mud casts observed at other nearby pithouses (pers. comm., Kathy Fiero, archaeologist, Mesa Verde National Park, 25 April 1996).



Figure 2.5 Detail of exterior of the restored and reconstructed Great Kiva at Aztec Ruins National Monument, New Mexico

HISTORIC SITE RECONSTRUCTIONS

Fort Union Trading Post National Historic Site

The situation at Fort Union has generated some of the more heated debate in recent years and stands out as a major confrontation between the proreconstruction and anti-reconstruction sentiments in America. It also demonstrates archetypical examples of the professional conservative philosophy at odds with management and agency planners and strong political and economic forces.

From 1828 to 1866, Fort Union served as a major distribution and collection centre in the Upper Missouri region Indian trade. Located about two miles above the confluence of the Yellowstone and Missouri Rivers just east of the modern North Dakota-Montana state line, it served as the headquarters of the Upper Missouri Outfit.² As such, its facilities were naturally the largest and most impressive in the American Fur Company's empire on the upper Missouri River.



Figure 2.6 1950s' reconstruction of Balcony House cliff dwelling, Mesa Verde National Park, Colorado



Figure 2.7 1983 repair of reconstructed Pithouse C at Step House, Mesa Verde National Park. Colorado

Tourism and 'Public Education' at Fort Union

Fort Union's reconstruction was advocated for over seventy years by a variety of special interests with the aim of fostering public education. Although 'fostering public education' was the actual reason given by politicians for reconstructing Fort Union, promoting tourism was seen as a means of addressing the local area's economic ills and appears to be the primary motivating factor. In order for reconstruction to take place, there must be funds available to the public agency charged with managing the site. This in turn means that there must be some public enthusiasm for that action; vocalized public enthusiasm in the United States is the basis for political pressure which, in turn, generates the required funding for reconstruction.

The original proposal to rebuild Fort Union may have been made as early as 1925 by residents of Mondak, a small town straddling the Montana and North Dakota border about a quarter of a mile west of the Fort Union site. Mondak, dependent on agriculture, the sale of liquor to the North Dakota citizens (a dry state), and the railroad for its survival, simultaneously experienced the severe repercussions of a devastating drought, the loss of its railroad stop, and the effects of the Eighteenth Amendment (Prohibition) to the US Constitution. In a desperate attempt to preserve the dying community, the town's name was changed to Fort Union with reconstruction of the old trading post advanced as a means of drawing tourist dollars from passing passenger trains. All these efforts proved of no avail and the town Fort Union (formerly Mondak) passed away into history to be preserved as a few ruins like its adopted namesake (Greiser *et al.* 1982).

During the late 1920s and early 1930s, a number of people spent a great deal of time and energy trying to get some governmental agency (including the NPS) to acquire the Fort Union site. Both the NPS and the State Historical Society of North Dakota (SHSND) considered the site important as a cultural resource due to the role it had played in regional history. When gravel quarrying threatened the site, the SHSND finally agreed to buy it in 1939. During its twenty-six years of stewardship, the Historical Society continued to promote the reconstruction goal. However, Mondak had ceased to exist by this time and, although the local economic situation (based almost solely on agriculture) was not good, the Great Depression of the 1930s had virtually eliminated tourism as an economic activity. Public pressure for reconstruction was eliminated and funds for that purpose were never forthcoming from the state government.

After World War II, as tourism in the USA rebounded in an extraordinary fashion, tourist-supported businesses expanded almost exponentially in a frantic attempt to keep up with the demand of the touring public. Since the local economy continued to be based on two 'boom and bust' enterprises, agriculture and oil, tourism was seen by the area's business leaders as a potential means of reducing their dependency on the boom and bust cycles.

The site remained in state ownership until 1966, when Congress recognized Fort Union's importance by creating Fort Union Trading Post National Historic Site. The property was transferred from the State Historical Society of North

Dakota to the NPS in 1967 (NPS 1979). Now the NPS was faced with the question of whether it was best to interpret the site for the public as a reconstructed fort or as preserved archaeological ruin.³ Initially, reconstruction was advocated, but, with the changes in NPS reconstruction policy in 1974, preservation of the site was emphasized and methods other than reconstruction were promoted as a means of site interpretation.

The late 1970s' oil shortages brought an oil boom and expanded the economy of the Fort Union region to the limits of its social resources. As quickly as it had inflated, the balloon of oil riches burst in the early 1980s. At the same time, agricultural hard times returned with poor prices for wheat and sugar beets in the market place. Once again, the site of old Fort Union was promoted as a major economic asset with its reconstruction holding out the promise of bringing tourist dollars and jobs into the community. The region's influential business leaders came together on this issue and directed political pressure on North Dakota state and national elected officials.

The cause of reconstruction was aided further with President Reagan's appointment of William Penn Mott, Jr. as NPS Director. Mott considered the anti-reconstruction perspective an elitist view and believed re-creations were valid as modes for public interpretation and education (Mackintosh 1990:7). Finally, legislation for reconstruction was introduced by the North Dakota Congressional delegation and, in December of 1985, the internal NPS debate focusing on issues of protect or develop was resolved for Fort Union Trading Post National Historic Site with the passage of a bill directing reconstruction of the fort on site.

As noted above, the political climate of the late 1960s allowed or even encouraged reconstructions when certain prerequisites were in place. By the mid-1970s, however, the preservationist provisions of the Archaeological and Historic Preservation Act served to sidetrack the planning and funding for reconstruction. With the assumption of new preservation standards, the NPS resolved to continue interpreting Fort Union as an archaeological ruin (Figures 2.8, 2.9). On-site interpretation was accomplished by outlining structure locations with ropes with a sign associated with each structure to identify the building and describe its function within the post. Inside the Visitors Centre, interpretation focused on a scale model of Fort Union. Park employees used this model as another device to explain the trading post's site plan and the function of its various structures. The other expressed purpose of this model, however, was to serve as a guide for the eventual reconstruction.

Apparently, the park staff saw the hiatus in reconstruction efforts to be only temporary; NPS planning documents continued to cite fort reconstruction as an objective. And, of course, for economic reasons, an interpretive plan calling for reconstruction was wholeheartedly embraced by the local populace. However, the federal government's new emphasis on site preservation over reconstruction caused much local disillusionment and protest, eventually leading to political action by the US Congress in 1978 that mandated an NPS



Figure 2.8 Pre-excavation view of Bourgeoisie House, Kitchen, NE Bastion Powder Magazine, Store Range and Palisade in 1986



Figure 2.9 1986 pre-reconstruction excavations at Fort Union

reconstruction study. This study, issued in 1979, acknowledged that an abundance of historical documentation (for example a variety of journals, letters, published works, sketches, paintings, and photographs) of Fort Union were available, especially for the period between 1851 and 1867. The study recommended additional historical and archaeological research followed by a partial reconstruction of Fort Union 'with the understanding that the level of reconstruction match the level of data for each structure'.

Meanwhile, the new NPS-28 cultural resource guidelines expressed a strong anti-reconstruction philosophy: 'The Service does not endorse, support, or encourage the reconstruction of historic structures, and does not permit reconstruction or replication of prehistoric structures.' Further, reconstruction would be considered only if full-scale, on the original site, and 'when surface or subsurface remains will not be destroyed'. With the assumption that excavation is destructive to the resource, this wording made it literally impossible for any reconstruction to take place at Fort Union. Nevertheless, formidable political forces resurfaced, with reconstruction and its expected accompanying tourist dollars hailed as the remedy to the local economic recession. While an in-house agency debate raged, Congress passed a Bill directing reconstruction of the fort on site.

The *in situ* archaeological remains of the site were now clearly threatened with destruction. Despite passage of the reconstruction Bill by Congress (Reconstruction of Fort Union was included as a line item in the 1986 National Park Service Appropriation Bill), agency archaeologists argued the case, consistent with NPS policy, of preservation-in-place of the Fort Union site. Additional test excavations, they maintained, should be used to collect the needed architectural information for guiding the reconstruction. Once this was completed, reconstruction of Fort Union could take place near its original location but not on top of the original foundations. An ideal location, the archaeologists proposed, was an abandoned gravel quarry pit located about 100 yards west of the site. The quarry could be filled and the trading post reconstructed on the fill.

This proposal had a number of positive elements. The archaeological investigation would require much less time and money to complete, allowing the reconstruction to proceed fairly quickly. By the end of the reconstruction, the NPS would have two means of interpreting the site rather than one: the reconstructed post as well as the archaeological site with its visible ruins. In addition, the site would continue to be a resource set aside as a means of addressing archaeological research and management concerns of the future. This approach was also favoured by preservation agencies charged with the review of NPS development projects (Sherfy 1985; King 1986; Sperry 1986).

But the pro-reconstruction NPS planners could not be swayed. In their opinion, off-site reconstruction would not be believable from the perspective of the general public. The recommendation for recreating Fort Union off-site was further hampered by an accelerated construction time frame demanding the initiation of reconstruction within nine months of Congress' Bill enactment. Very little time was available for project planning and the concerns for site preservation

and construction alternatives were unable to move very far up the administrative ladder before a decision was made by Director Mott to reconstruct Fort Union on site (Mackintosh 1990:10; NPS 1985) (Figure 2.10).

Bent's Old Fort National Historic Site

Bent's Old Fort, conveyed to the National Park Service in 1960, was the headquarters of one of the two largest American trading companies during the two decades of the 1830s and 1840s. The fort was a major Indian trading centre and a 'centre of civilization' on the Santa Fe Trail. It was the most prominent landmark on the topography and in the history of the Southwestern Plains. The fort was totally self-sufficient in providing all food, lodging, and services for the hundreds of company employees and traders, with continuous, extensive blacksmithing and other reparations and outfitting activities. It was the most remarkable structure in the West in its time. The Indians traded furs and hides for Euro-American goods such as whiskey, tobacco, armaments, cloth, clothing, blankets, beads, horses, and according to one account, occasionally women. The fort was one of the major staging areas for the US Army during the Mexican War of 1846–1848 (Comer 1993).



Figure 2.10 1988 aerial view of excavations at Fort Union, with initial reconstructions

The reconstruction and the interpretive programmes at Bent's Old Fort have focused on conditions of the site in the year 1846 during the Mexican War. Interpretation philosophy centres on the tenet that what one experiences is retained for much longer and in much more detail than what one merely hears or sees. The reconstructed fort and grounds are important teaching tools that offer the opportunity to experience the massiveness, complexity of architecture, and spatial relationships of the living and working spaces.

A central feature of the interpretive programme here is the re-enactment or role playing by staff and volunteers (personalities such as Kit Carson; plus role playing of merchants, clerks, traders, Indians, mountain men, soldiers, and so on) of the era (Comer 1993). As at Colonial Williamsburg, role playing enhances the presentations by enabling visitors to imagine the real situations within an authentic temporal and contextual setting, with reconstructions providing important background props.

Fort Vancouver National Historic Site, Washington

This site, often cited as one of most thorough reconstructions from archaeological evidence in the USA, was the headquarters of the mammoth Hudson's Bay Company, representing Great Britain's business and governmental interests in competition with the United States between 1830 and 1860. The entire complex of factor's house, barracks, blacksmith shop, warehouses, kitchen, and other buildings (e.g. Figures 2.11, 2.12) was reconstructed in the late 1970s following an intensive archaeological investigations programme.



Figure 2.11 Aerial view of partly completed reconstruction of stockade wall at Fort Vancouver National Historic Site, Washington



Figure 2.12 Reconstructed bake house at Fort Vancouver

Ninety-Six National Historic Site, South Carolina

The site dates from the eighteenth and early nineteenth centuries and is located in the Lower Piedmont region of South Carolina with a complex of fortifications related to two battles of the American Revolutionary War (1775-1781) as well as unique remains of an earlier frontier trading post and associated forts. Considered by both sides to be key to the control of the Carolina upcountry, this strategically important town was defended on separate occasions by both patriot and loyalist forces. During the 1750s and early 1760s, the colonial authorities built and occupied Fort Ninety-Six to protect an important trading and military outpost along the Cherokee Path, a major trade route. The site's greatest notoriety stems from the twenty-one day siege (the longest of the war) in 1781 by General Nathaniel Greene's southern army.

CURRENT STRATEGY FOR PUBLIC INTERPRETATION

The park has two primary historic themes. The first deals with development of the English Colonies, 1688-1763, and relates to the 'Gouedy Complex', composed of mid-eighteenth-century plantation properties, a trading post, a cemetery, and associated pre-Revolutionary War fortifications. The second addresses the American Revolutionary War in the South, and is represented by the Star Fort and siegeworks, the Ninety-Six village and associated fortifications, and a (reconstructed) stockade fort. The focus of the existing interpretation programme unfortunately bypasses many significant events and circumstances that have

been documented archaeologically, largely over looking the recorded components placed temporally outside the immediate twenty-one day siege (Jameson 1990).

THE SUPERIMPOSED FORTS OF 1775 AND 1780-1781

Hastily constructed by patriot forces in November 1775, this fortification was the centre of what was probably the first land battle of the war in the southern colonies. In recording the exact location and structural details of this 1775 fort, archaeologists found that the architectural remains had been partially intruded upon by the construction, from December 1780 to June 1781 of, what General Greene termed, 'the stockade fort on the right'. In 1971, archaeologists discovered a burial inside the fort that is apparently the remains of a soldier killed during the 1775 battle. Although historians recognize the 1775 battle as a very important early engagement of the American Revolutionary War in the South, the current programme, a 1976 National Bicentennial Celebration exhibit in the park's Visitors Center that has not changed in twenty years, barely mentions it.

One might ask: was the park's raison d'être, as defined in the Act of Congress that created the park, just to commemorate the immediate events that led up to and followed the May—June 1781 siege? Several probable scenarios could be offered. One is that the interpretive programme at Ninety-Six was designed to comply with the planning initiatives in the mid-1970s for the nation's bicentennial celebration, so that park interpreters and exhibit planners have emphasized historic events that had military (Revolutionary War) significance. Another is that the nineteenth- and twentieth-centuries' legacy of the twenty-one-day siege was what made the site (and property surrounding the site) stand out as important to the public eye and to the US Congress. A third possibility is that, because of the documented (through historic accounts and modern archaeology) density of objects and complexity of historical themes in the area, exhibit planners thought that to reveal too many details (for example, superimposed fort alignments and overlapping structural alignments) would confuse the visitor.

Some archaeologists and exhibit designers have suggested that a physical interpretation of the 1775 fort that co-exists with the reconstructed 1781 fort would confuse the visitor. This must be at least open to question since, given the known historical significance of the 1775 battle site, many knowledgeable visitors are visually overpowered by the reconstructed 1781 components and are puzzled that the 1775 fort, and the events surrounding the 1775 battle, are not more thoroughly addressed and illustrated in the existing reconstructions. In other words, an enhanced and more inclusive interpretive programme, one that clarifies the differential orientation and alignments of the superimposed forts, will likely help remove confusion rather than increase it.

Andersonville National Historic Site, Georgia

Located in middle Georgia, this site commemorates the most notorious of the numerous American Civil War (1861–1865) prisoner-of-war camps.

Approximately 15,000 Union prisoners died here in 1864–1865. Sections of the large and formidable stockade wall (Figure 2.13) and sentry stations were reconstructed *in situ*, based on archaeological evidence from the mid-1980s, as an essential element in the interpretation. As at Fort Union, the *in situ* archaeological work and partial reconstruction have been destructive to the remains but have been defended by management as necessary for more precise and realistic interpretation of the site. Key to this need is the allowance for visitors to grasp the spatial dimensions of the sizeable prisoner-of-war camp.

DISCUSSION

In the 1930s, the initial ripples of in-house opposition to reconstructions were more than countered by the current of popular and political sentiment that resulted from the tremendously popular Colonial Williamsburg. Throughout the history of the NPS, many opposed to reconstructions in general have nevertheless given some allowances for coping with the reality of reconstructions at historic sites and parks. They contend that reconstructed structures need not skew our sense of the past as long as they are presented and understood as one generation's attempt to memorialize the other. Sites such as Pennsbury, George Washington's Birthplace, and Colonial Williamsburg are seen as monuments to an early twentieth-century need for a romantic venerable past. They see reconstructions as possible multi-dimensional educational resources, but only if



Figure 2.13 Reconstruction using heavy equipment of wooden stockade wall at Andersonville

the reconstructions are not presented as authentic and expose the thoughts, methods, and biases of the creators. Their main credo defines reconstructions as merely one generation's interpretation of what it perceives the past to be, or should have been (Pitcaithley 1989:14).

The anti-reconstruction philosophy has been served in more recent years by the ideological evolution of the historic preservation movement with an increased emphasis on resource preservation and protection. The National Historic Preservation Act of 1966 and a myriad of follow-up laws and regulations at both State and Federal levels have been enacted. These mandates stress preservation-in-place of both the built environment and archaeological resources. The present-day anti-reconstruction purist is on guard against the public's 'nostalgia for a lost paradise' and public interpretation that 'builds easy bridges to what is finally a dream about how things were'. The more that such bridges are built and used, they contend, 'the more likely it is that the truth about the past will slip away' (ibid.: 8–9).

Although many examples exist in the US National Park System, reconstructions are not common because they have been resisted by staff concerned that truth 'will slip away'. Whenever reconstructions are proposed, opposing positions are argued and an anti-reconstruction coalition almost always prevails. Yet, it is interesting to note that many of these same seekers of 'truth' about the past are perfectly comfortable with public interpretations that leave brute realities (for example, sensual phenomena such as dirt and filth, foul smells, noise, as well as realistic conditions of illness and physical suffering, danger and uncertainty, coarseness, and brutality) of the past unrepresented (Comer 1993:311). One classic example of this is the sanitized settings of Colonial Williamsburg and other 'reconstructed' sites that, despite the good intentions of management and staff to provide the 'real-life' conditions of the past, make short mention of these realities and sensibilities (Gable and Handler 1993:3–15).

In almost every case where significant or major reconstructions have been carried out, anti-reconstruction sentiments have held sway until confronted by overpowering political and economic forces (Pitcaithley 1989:10–11). Here, local politicians and members of Congress, often with genuine collateral conservation and protection interests, promote the establishment of a park primarily for the prestige and notoriety and resultant increased levels of tourism and economic stimulus to the area. Many key programme planners and managers, epitomized by Director Mott in the 1980s, have considered the antireconstruction perspective an elitist view and have believed that reconstructions were valid modes for public interpretation and education. Agency policy, unlike law, is subject to the discretion of management, whose commitment will vary with public and political influences (Mackintosh 1990:14).

Despite the historical controversy surrounding the concept of reconstruction, the interpretation 'experts' must try to come to terms with the limitations of our knowledge or what is knowable through modern analytical techniques. If

we can never really know the complete 'truth' about a site, we at least can, and indeed, must deliver images that are both instructional and rewarding to the visitor: a picture that conveys information on past realities and conditions of human experience that enables the visitor to understand and appreciate his or her own life and condition (for a similar argument with regard to museum exhibits see Stone 1994). Reconstructions that are well thought out and do minimal damage to the archaeological resource should be considered as interpretive and educational tools. While we have the responsibility in our interpretations of anticipating the needs of the future, we also have an equal, if not greater, challenge of meeting the needs of the present (Jameson 1993, 1994).

NOTES

- 1 Although Yellowstone National Park was, created by Congress in 1872, the National Park Service, a bureau of the US Department of the Interior, was not established until 1916, when it was set up to administer 37 national parks and monuments. The National Park System now comprises more than 360 areas totalling over 80 million acres (32.5 million hectares). In addition to National Parks, the system includes national monuments, historic sites, historical parks, memorials, military parks, battlefields, cemeteries, preserves, recreational areas, lakeshores, seashores, parkways, scenic and historic trails, and rivers.
- 2 The word 'Outfit' refers to a business subsidiary of the American Fur Company (AMF) and its successors. The AMF was subdivided into two Departments and each of these was partitioned once more into Outfits. Each of these entities had sole responsibility for the bison robe and fur trades within specific geographic areas and with particular tribal groups.
- 3 The term 'ruin' here is used somewhat loosely. There were a few site features that were actually visible prior to reconstruction including, for example, the stone bases of the two bastions, mounds at fireplace foundations, and three deep basement depressions. Sub-surface (non-visible) 'rains' existed in abundance, for example, wooden and stone foundations, wooden floors, stone palisade foundations. The site remained well preserved as an archaeological site.

REFERENCES

- Bennett, G. 1992. Evoking the past or provoking the gods? Some observations on period reconstructions. *CRM Bulletin* 15, 21–4.
- Chappell, E.A. 1989. Architects of Colonial Williamsburg. In *Encyclopedia of Southern Culture*, C.R. Wilson and W.Ferris (eds), 59–61. Chapel Hill, NC: University of North Carolina Press.
- Comer, D.C. 1993. Ritual ground: Bent's Old Fort, ideology, and the annexation of the Southwest. Unpublished PhD dissertation, Department of American Studies, University of Maryland, Annapolis.
- Department of the Interior (DOI). 1995. Secretary of the Interior's Standards for Reconstruction and Guidelines for Reconstructing Historic Buildings. Washington, DC: National Park Service.
- Fairbanks, C.H. 1946. The Macon earth lodge. American Antiquity 12, 94–108.

- Gable, E. and R.Handler 1993. Deep dirt: messing up the past at Colonial Williamsburg. *Social Analysis* 34, 3–15.
- Greiser, T.W., L.B.MacDonald and D.F.Gallacher 1982. Testing and Evaluation of Cultural Resource Site 24RV102, the Mondak Townsite, Roosevelt County, Montana. (Missoula, Montana: Submitted by Historical Research Associates under Contract Number NDSHD 35–0006–1081 to the North Dakota State Highway Department, Bismarck, North Dakota, USA).
- Huey, P.R. and W.J.Hunt Jr. 1990. The great reconstruction controversy: a debate and discussion. *CRM Bulletin* 13, 1–4.
- Hunt, W.J. Jr. 1992. Reconstruction and archaeological preservation in the National Park Service: a case study of Fort Union Trading Post National Historic Site. Draft manuscript on file at NPS Midwest Archaeological Center, Lincoln, Nebraska, USA.
- Jameson, J.H. Jr. 1990. Digging for the whole truth: problems and suggestions for interpretation at the Ninety-Six National Historic Site. *Proceedings of the 1990 National Interpreters Workshop*. Fort Collins, Colorado: National Association of Interpretation.
- Jameson, J.H. Jr. 1993. NPS Programme seeks communication among practitioners and educators. *Archaeology and Public Education* 3, 4.
- Jameson, J.H. Jr. 1994. The arrival of public education as a priority in archaeology. SOPA Newsletter 18, 1–2.
- Kimball, F. 1935. The restoration of Colonial Williamsburg in Virginia. *The Architectural Record* December, 359.
- King, T.F. 1986. Letter from T.F. King, Director, Office of Cultural Resource Preservation, Advisory Council for Historic Preservation, Washington, DC, to L.Lorraine Mintzmyer, Regional Director, Rocky Mountain Regional Office, Denver, Colorado, dated 1 April 1986. On file, NPS-Inter mountain Field Area Office, Denver, Colorado, USA.
- Kwas, M.L. and R.C.Mainfort Jr. 1996. From ancient site to tourist attraction and beyond: archaeological parks in the Delta. *Common Ground* 1, 35–8.
- Mackintosh, B. 1990. To reconstruct or not to reconstruct: an overview of NPS policy and practice. *CRM Bulletin* 13, 5–7, 14.
- National Park Service 1975. *Management Policies*. Washington, DC: National Park Service, US Department of the Interior.
- National Park Service 1979. Fort Union Reconstruction Analysis. Washington, DC: National Park Service, US Department of the Interior.
- National Park Service 1985. Memorandum from the NPS Regional Director, Rocky Mountain Region to the Director, re Partial Reconstruction, Fort Union Trading Post National Historic Site, North Dakota/Montana, dated September 25, 1985, code D18(RMR-PP). On file with the Inter mountain Field Area Office, Denver, Colorado.
- National Park Service 1988. *Management Policies*. Washington, DC: National Park Service, US Department of the Interior.
- National Park Service 1994. NPS-28: Cultural Resource Management Guidelines. Washington, DC: National Park Service.
- Pitcaithley, D.L. 1989. Pious frauds: federal reconstruction efforts during the 1930s. Paper delivered at the annual meeting of the Organization of American Historians, St Louis, Missouri.
- Sherfy, M. 1985. Letter from Marcella Sherfy, Montana State Historic Preservation Officer, Helena, Montana, to Lorraine Mintzmyer, Regional Director, Rocky Mountain Regional Office, Denver, Colorado, dated 17 October 1985. On file, NPS-Inter mountain Field Area Office, Denver, Colorado.

Sperry, J.E. 1986. Letter from James E. Sperry, State Historic Preservation Officer, Bismarck, North Dakota, to Jack W.Neckels, Acting Regional Director, Rocky Mountain Regional Office, Denver, Colorado, dated 3 April 1986. On file, NPS-Inter mountain Field Area Office, Denver, Colorado.

Stone, P.G. 1994. The re-display of the Alexander Keiller Museum, Avebury and the National Curriculum in England. In *The Presented Past: heritage, museums and education*, P.G.Stone and B.L.Molyneaux (eds), 190–205. London: Routledge.

3 Reconstruction sites and education in Japan: a case study from the Kansai region

KATSUYUKI OKAMURA AND ROBERT CONDON

INTRODUCTION

Site reconstruction has a long history in Japan, the earliest example being the 1949 reconstruction of a prehistoric hut at the *Yosuke-one* site in Nagano Prefecture (CAO 1978). Since then, the number of reconstructed sites has increased, most rapidly during the 1980s, and more recently the educational potential of such sites has been greeted enthusiastically.

We would define site reconstruction as the rebuilding of a site primarily from archaeological evidence. This is contrasted with site restoration, which rebuilds, *in situ*, the remains of a structure. Obviously this definition allows for a wide range of reconstruction sites, however, we will consider reconstruction sites under three main categories:

- 1 *Research/education*, typified by 'virgin land' reconstructions, primarily experimental, but having a secondary use for education and profit.
- 2 *Education/tourism*, typified by museum reconstruction, as tourist attractions, and they are not usually constructed using original method/materials.
- 3 *Preservation* where the reconstruction is built over the site, protecting the remains, usually after excavation. As there is usually a layer of earth separating the remains from the reconstruction, this style of reconstruction could be considered a vertical displacement, not a horizontal displacement as with 'virgin ground' reconstructions. (Tsuboi 1992:2–3; Shiina 1994)

While all three types exist in Japan, the latter two exist in far greater number and the third style is employed as a reaction against the massive development projects which originated in the 1960s and 1970s, and continue to the present day.

When viewed in this manner, the relationship between reconstruction sites and the goals of Japanese archaeologists becomes apparent. Briefly put, archaeologists wish to protect, interpret and present, and explore the past. The situation in Japan, however, makes these goals difficult to attain. Until recently, greater priority has been given to economic development than to archaeological heritage by both the general public and the government, and so

it has been difficult to preserve important sites and features. This is compounded by the general form of Japanese archaeological features, most of which are the remains of wooden objects and structures. As such, the features usually consist of pits, post holes and ditches, which detail only the outline of the structure. Without some form of reconstruction it would be difficult to present an image of the past. Simply put, Preservation reconstructions have allowed archaeologists to at least partially achieve their first goal, and the Educational/tourism reconstructions have begun to help archaeologists realize the second.

THE DEVELOPMENT OF SITE RECONSTRUCTION AND AHM POLICY IN JAPAN

Site reconstruction has developed alongside changes in Japanese archaeological heritage management (AHM) policy, which has in turn been greatly influenced by the social, political and economic aspects of Japanese society (Fawcett 1990; Tsude 1995a), as well as the site preservation movements of the 1960s and 1970s. At present, national and regional governments register important sites as the Shiseki (historic monuments and sites) and it is common for such sites to undergo a degree of reconstruction as one step in this process. After registration permission must be obtained before developing any land associated with the Shiseki. To date, there are over 300,000 registered sites in Japan and approximately 9,000 archaeological sites are investigated annually (Yokoyama 1994). In most cases these are under threat of destruction. As of 1989-90, this total number of registered sites included some 14,235 Shiseki; 1,296 protected by National Law, 2,581 protected by Prefectural codes and 10,358 protected by City and Town codes (Jyubishi 1993:20). The preservation and utilization of Shiseki are administered by the Agency for Cultural Affairs—a responsibility which includes site reconstruction. The development of site reconstruction in Japan can be traced by reviewing the development of this agency's projects.

The preservation and utilization of *Shiseki* can be classified into three categories: the 'freezing' type; the partial reconstruction; and the full-scale reconstruction. These three categories also represent the steps by which site reconstruction developed in Japan Jyubishi 1993:22–3). The 'freezing' type served to preserve sites *in situ* for future research and the sites were sometimes covered by grass or plants, with information boards or site maps detailing where the sites are buried. Often the sites were landscaped to highlight the existence and form of the underlying archaeological remains. Thus, the reconstruction was largely two-dimensional. Most of the *Shiseki* in Japan belong to this type and represent the main form of *Shiseki* preservation until the 1960s. The partial reconstruction type was popular from the early 1970s through to the 1980s and consisted mainly of the three-dimensional reconstruction of tumuli and the partial reconstruction of settlements. The

sites were later used to teach local history. Recently, the most popular method has become that of full-scale, complete reconstruction, not just in the context of the formal teaching of history, but also with regard to informal learning in the wider historical and natural environment.

Another major change to AHM policy is how the land associated with *Shiseki* was perceived. Until the 1960s, archaeological sites in Japan were preserved as sites within the greater landscape. Gradually this situation has reversed and now the associated landscape as a whole is preserved along with the sites, to act as a natural background to the sites (Tanaka *et al.* 1979). The strongest force in changes to AHM has been the concept of *Shiseki seibi*—rehabilitating historical monuments and sites (All Japan Cultural Properties Protection Association 1993). The National Agency for Cultural Properties has a general policy of giving grants for *Shiseki seibi* as well as for the deprivatization of sites. By this means the protection of the historical setting of *Shiseki* is guaranteed. Funds for grants come from national, prefectural and city organizations; in general, the prefecture and city must contribute one quarter each.

Shiseki seibi, including reconstruction sites, began in 1966 with the Fudokino-Oka ('ancient landscapes' and conveying the idea of a sentimental past) project. Through this project, grants were allocated to Shiseki that met three conditions: the sites had to cover more than 165,000 m²; the natural environment had still to be intact; and development had to include the construction of a Visitor Centre on the site. As a result of this project, fourteen Shiseki parks, focusing on ancient periods, were constructed in various locations in Japan. Within these parks, complete site reconstruction was not encouraged, even where there was sufficient evidence for such an approach. This stance was largely supported by archaeologists of the time, many of whom took a prudent view to full-scale, site reconstruction. The project initiated positive feedback from the general public as they began to appreciate the value of the archaeological heritage and began to react to the loss of the historical landscape caused by massive land development during the period of high economic growth (Yasuhara 1979:752). The partial reconstructions also served to counter the demand for land utilization for economic development by demonstrating that the land was being used. That is, vacant land was seen as wasted economic potential.

A major change in this policy occurred with the announcement of a special *Shiseki* utilization project, commonly referred to as *Furusato rekishi no hiroba* (spiritual—homeland, historical park). The agency used this project to select eight sites, and to allocate to each a grant of 50 million yen, over a 3-year period. The aim was to reconstruct historical features, model the general layout of features, construct facilities to expose such features, construct guide boards, plus any other activity which was necessary for site utilization (Tanaka 1991:97–8). This project encouraged the full utilization of the selected *Shisekis*

potential. From the beginning of this project, regional governments suggested various ideas for the utilization of reconstructed sites and, consequently, various kinds of site reconstruction came into existence in Japan. The project initiated a new epoch for site rehabilitation, which has flourished during the 1990s (Tanaka 1990).

In 1993, the scope of this project was expanded under the special 'local main *Shiseki* preservation and utilization' project. This additional project was to preserve and utilize the regional temples and/or ancient government structures, specifically buildings, which once functioned as political, economic, social or cultural centres. These reconstructions were to serve as a core for a given area's *Shiseki*. Grants for this project were budgeted at 437.5 million yen in 1995. Additionally, from 1995, the large site *seibi* project, commonly referred to as the *Kodai roman saisei jigyo* (Drive to Revive Ancient History) commenced. This project was to reconstruct the whole structure of the houses, kilns, workshops and other buildings in large ancient settlements, and to construct educational facilities to teach about, and to give practical experiences of, the whole variety of human life at that time (Ministry of Education 1995:272).

There seem to have been two main motives for this change in *Shiseki* utilization during the late 1980s. The first was the *Furusato* creation project, established in 1988 by the then Prime Minister, Noboru Takeshita. The purpose of this project was to enhance rural identity, including the utilization of sites and cultural properties as a core to the revitalization of regional economies and culture, and give a grant of 100 million yen in each case. It also aimed to repopulate these communities which were suffering from drastic falls in population caused by large-scale movement of people to urban areas (Ashio 1991).

The second was the discovery of the Yayoi period, Yoshinogari Enclosure site, in Saga Prefecture. The site is situated in a rural area, and was discovered prior to the construction of an apartment block. Over a 3-year period from 1985, a vast area of 30 hectares was excavated. Yoshinogari was discovered to be a composite site dating from the Palaeolithic to Nara period. The most attractive aspect of the site is the Yayoi period settlement, enclosed by a ditch and palisades. The settlement stretches 1050 m, covering a total area of 27 hectares, and is one of the largest sites in Japan. Inside the enclosure were watchtowers (e.g. Figure 3.1), raised store houses and pit-dwellings. The size and age of the settlement popularized the site as a possible location of Yamataikoku, the state headed by Empress Himiko. This ancient Japanese state is mentioned in the third-century AD account of Japan, Gishi Wajinden, written in China. This discovery brought about a sensation in public interest and details were broadcast daily by the mass media during 1989. Yoshinogari site, under the threat of destruction after excavation, was finally preserved due to the support of many local people and groups including a petition of over 100,000 signatures. It was decided to temporarily reconstruct the site,



Figure 3.1 One of two Yayoi period watchtowers in Yoshinogari Enclosure site, Saga Prefecture. (Courtesy of the Saga Board of Education.)

beginning with the watchtowers and houses (Enaga 1990:196–7). More than 2 million tourists visited the reconstructed village in the 1989–90 financial year (Takahashi 1990). The economic effect of the Yoshinogari site was positive and the commercial value of the archaeological site as a tourism resource was recognized. This made a major contribution to decisions to reconstruct and preserve sites in other areas. The income from tourism at such *Shiseki* rose by 25 billion yen in 1991 compared to 1989 (Ono 1993), and free advertising in the form of newspapers and daily news broadcasts was estimated at 21.4 billion yen over the same period (*Nikkei Newspaper* 1989). At present the Yoshinogari site is on the way to becoming the second National Historical Park.

Ultimately these changes were brought about by a shift in the way sites were perceived by the government and the general public. This is related to the Japanese people's pursuit for a better quality of life, for increased leisure time following the period of economic prosperity. People now have a heightened demand for a more visible past, and in a society which has changed rapidly particularly in the area of technology, they seek their cultural identity. This change can also be attributed in part to the activities of archaeologists who sought to increase the general public's awareness of their history. The government found that these sites could in fact generate vast income and thus could contribute to the economy as a whole.

NANIWA PALACE SITE: A CASE STUDY OF SITE RECONSTRUCTION

Issues concerning the *Naniwa-no-miya* (Naniwa Palace) site and its preservation have spanned the whole of the period detailed above.

Background and excavation of the Naniwa Palace site

The earliest documentary evidence in Japan details how in the mid-seventh and eighth centuries AD, palaces were twice established somewhere within central Osaka, It was not until 1957, however, that the location of these ancient capitals was discovered, when following the accidental discovery of Nara period (AD 710-794) roofing tile fragments, Tokutaro Yamane initiated excavations at Hoenzaka, Chuo Ward, Osaka. Investigation of the site, conducted by the Naniwa Palace Site Commemorative Society and the Osaka City Cultural Properties Association (OCCPA), have continued to the present day. The initial excavations revealed the remains of two palace complexes at the site, sharing the same central axis, with often overlapping features. The earlier of the two, referred to as the Former Naniwa Palace, was identified as Naniwa Nagara Toyosaki-no-miya, the palace—capital established at Naniwa by the Emperor Kotoku in AD 645, as detailed in the Nihonshoki (eighth-century AD historiography). Excavations revealed the palace to have been laid out after the Chinese palace-capital system, but constructed using the domestic hottatebashira technique, the usual method of construction at that time, where the support pillars are imbedded directly into the ground. This structure was used as the palace—capital of Japan until shortly after the death of Kotoku in AD 654.

The second structure, referred to as the Latter Naniwa Palace, has been identified as the sub-capital of Heijo Palace of Nara, established in AD 744 by the Emperor Shomu. This new palace was constructed using new techniques: the pillars were erected on stone bases and the main buildings featured tiled roofs. The layout also changed, most notably with the separation of the Imperial residence and the *Daigokuden* (Audience Hall), buildings which had previously been within the same enclosure, and the construction of the Audience Hall on a raised stone platform. Though the palace became the primary capital for a brief time in AD 744, it was later dismantled and moved to Nagaoka, where its building material was reused for the construction of a new palace—capital (Nakao 1986).

Preservation and reconstruction of the Naniwa Palace site

Today, 90,000 m² of the site has been preserved as a national historic site, but like many other *Shiseki*, this has been the result of intensive preservation movements in the area. As Naniwa Palace is located at the heart of Osaka City, land utilization demand was very high, and the land occupied by the site was jointly owned by several different organizations. Whenever a new development was proposed, the site was under threat of destruction. In particular in 1962, when the construction of a national government public building was planned

on the site of the later *Daigokuden*, an extensive preservation movement developed. This movement, along with the one at the Heijo Palace site, was one of the pioneering preservation movements in Japan. As a result of these movements, and a lengthy court battle, the Agency for Cultural Properties designated the later Palace *Daigokuden* (16,500 m²) a historic site. In 1973, the *Chodo'in* (government office compound) area, to the south of the *Daigokuden*, was additionally designated a historical site (68,300 m²), and the Agency for Cultural Affairs decided to develop policies to deprivatize the entire 90,000 m² of the *Shiseki* (Society for the Protection of Naniwa Palace Site 1989).

At present, the Naniwa Palace site features reconstructions of monuments of both the former and later palaces. These reconstructions were completed according to the results of research excavations undertaken since 1971. The preservation methods of the features, the reconstruction balance of the former and later palaces, the style of reconstructed buildings and other issues, were discussed and examined by the Naniwa Palace Site Seibi Committee, consisting of leading archaeologists, historians, architectural historians and park planners. They determined, as a general policy, to reconstruct as accurately as possible, to reconstruct and display buildings of the later palace three-dimensionally, since the later buildings can be reconstructed with greater accuracy, and finally, to display two-dimensionally, using landscaping, the location and scale of the former palace's buildings to differentiate between the two palace complexes (Yasuhara 1987:5).

In 1971, the *Seibi* project, mainly for the *Daigokuden*, commenced. The project's aim was the reconstruction of the ancient landscape, including site features, and the reconstruction of the palace and the setting up of display facilities. To date, the main reconstructed feature is the *Daigokuden* platform of the later palace, completed in 1972, and the reconstruction of the octagonal structure as a pergola, in 1983. The floors of the platform enclosing corridors and the building of the *Chodo'in* are represented by the position of posts. Also, one of the fifth-century AD store houses was reconstructed to the north west of the palace site. This is one of sixteen such houses from a cluster, possibly constructed by the then central political authority, clarified by the excavation in 1987. This reconstructed building is one of the largest Kofun period reconstructed houses, and is the first full-scale reconstruction at the Naniwa Palace site.

At the same time, the expansion plan of the Naniwa Palace site was proceeding. In 1985, Osaka mayor Yasushi Oshima announced the unification project of Naniwa Palace and Osaka Castle sites. This project aims at gradually transferring the buildings between the two sites and setting up an archaeology museum, consequently creating a historical landscape to give the appearance that 'Osaka is one of the oldest cities, and get public recognition of Osaka's long history and traditions' (*Sankei Newspaper* 1985).

Since the late 1980s, the local populace, from commerce and industry groups in particular, have become increasingly active in their lobbying for the reconstruction of Naniwa Palace site buildings, for the purpose of revitalizing

the economy of Osaka and establishing their local identity. The Osaka Chamber for Commerce and Industry is quoted as stating that 'we should work on town planning to revitalize the economy and industry and to encourage internationalization by utilizing the history and cultural accumulation of Osaka, dating back one thousand, several hundred years'. The Chamber suggested reconstruction of part of the *Dairi* (Imperial residence) and *Chodo'in* as state guest houses and international conference halls, historical museum and others (*Sankei Newspaper* 1988). Additionally, the Osaka city government in an attempt to attract the year 2008 Olympics, published the 'Naniwa Palace Site Reconstruction Plan', to be completed within the next fifty years. They wish also to complete reconstruction of the southern gate of the *Dairi* and one of the octagonal complexes by the year 2008 (*Sankei Newspaper* 1995).

Such full-scale reconstruction of the Naniwa Palace buildings has long been discussed and examined by the Naniwa Palace Seibi Committee, focusing on the reconstruction of the later Naniwa Palace. This structure was chosen as there is plentiful evidence as to its architectural features (extant eighth-century buildings, ancient pictures) and as a result a 1:200 reduced scale model was constructed in 1989. The Daigokuden, Chodo'in and the southern gate of the Dairi were chosen by Osaka city government as candidates for initial reconstruction. With the discovery in 1993 of the former palace's Suzakumon (main southern gate) (Figure 3.2), the city government decided instead to shift the focus to features of the former palace and, in 1994, published its intention to commence reconstruction within the next five years. Its reasons were that the 'reconstruction of the former palace, which was the first capital, earlier than the Heijo Palace in Nara or the Heian Palace in Kyoto, has a higher historical value than the later palace, which was re-established as a sub-capital', and 'because the discovery of the Suzakumon provides information as to the extent of the whole palace' (Yomiuri Newspaper 1994).

This latter point is invalid in fact since the discovery did not contribute at all to the understanding of the actual structures of the complex, and since there are very few seventh-century models for palace building extant today, the authenticity of the reconstruction of the former Naniwa Palace remains problematic. On the other hand, authentic reconstruction of the later palace could commence immediately for the reasons stated above (Ueki 1995). The shift of palaces to be reconstructed may have been politically motivated: in neighbouring Nara prefecture, the reconstruction of the Heijo Palace *Suzakumon* has been underway since 1993, and was completed in 1997 and, presumably, Osaka does not wish to be seen as an imitator.

The Naniwa Palace site and public education

Although there are no precise statistics, it has long been known that the great majority of people in Osaka often misinterpret the Naniwa Palace site as being a park. To combat this misconception, the Osaka City Board of Education and



Figure 3.2 Excavation of the Daigokunden (Audience Hall) of the Naniwa Palace site, prior to reconstruction work. (Courtesy of the OCCPA.)

OCCPA have been active in supplying information to the general public regarding *Naniwa-no-miya*. At several locations, information boards have been set up, multilingual leaflets have been published and a variety of visiting parties have been guided around the site (e.g. Figure 3.3). There is also a small display room for archaeological finds in the Naniwa branch office of OCCPA. Additionally, open days and lectures on history are common during excavations. In June 1990 and March 1991, during open days at the fifth-century storehouse reconstruction, some 20,000 people visited the site (*Sankei Newspaper* 1991). Finally, each year the ancient *Bugaku* ritual is re-enacted within the site itself.

With the 1350 anniversary of Naniwa Palace in 1995, a far greater number of special events were held. These included a special exhibition held at Osaka City municipal museum, a series of history lectures and an international symposium, on-the-site explanation of finds and a fashion show. These events were widely advertised as they were intended to portray Osaka as a historical and cultural city to both a domestic and an international audience, as demonstrated by the symposium title, the '1350 Anniversary of Naniwa-no-miya and the APEC meeting in Osaka'. However, these events were 'one-offs' and permanent educational facilities are expected to be completed in the year



Figure 3.3 Visiting parties are guided around the Naniwa Palace site

2001, in the form of a Naniwa Palace site museum. This museum will focus not only on displaying objects, but will emphasize a 'hands-on' approach to teaching.

ISSUES AND GOALS OF JAPANESE SITE RECONSTRUCTION

During the 1960s, archaeological sites were often perceived, by both the general public and developers, as impediments to economic development. Later, through the joint efforts of Japanese archaeologists, the archaeological heritage gained greater appreciation (Okamura in press). This change, however, has come at a cost, one which many archaeologists are reluctant to pay. Since the late 1980s, reconstruction sites have started to be increasingly employed for a political and economic purpose. Regional governments are using reconstruction sites to promote local identity and increase tourist revenue, sometimes increasing their own prestige at the same time. Also, as demonstrated at the *Naniwa-no-miya* site, political motives often outweigh academic considerations when deciding how best to reconstruct the site. Simply put, modern, socio-political demands are dictating which image of the past should be presented to the present. Under these conditions, the presentation of the past is becoming increasingly compromised.

Reacting to this situation, Jyubishi (1993) has suggested four criteria for site reconstruction. First, the entire historical landscape of the site must be preserved. Second, site reconstruction must not damage the sites or its features. Third, the

general public, academic researchers and the site administrator should jointly determine how to utilize the site. Last, the evidence for the reconstruction and the procedure of reconstruction should be prominently displayed at the site. Others have also suggested that site reconstructions should be modified as new information becomes available (Sahara *et al.* 1993:63–5).

These last two points are of particular importance to ensure that the public are made aware of the known facts. Recently the lack of evidence has led to several reconstructions being completed based on tenuous authenticity. Also, as all reconstructions involve a degree of speculation and uncertainty, it is vital to clearly demonstrate the difference between the known facts and conjecture. At the Yoshinogari site there have been conflicting opinions as to the accuracy of the reconstructed watchtower. Some researchers feel that it is too high, others believe that the dimensions are incorrect and some have even suggested that the remains were actually those of a gate (Kito 1989). There is a similar case at the Nejo site in Aomori, northern Japan where reconstructed houses were based as much on guesswork as on hard evidence. Site administrators have, however, constructed alternative models of the houses on a reduced scale (Kudo and Sasaki 1992:100–3).

Another important question is for whom the past is being preserved and utilized. At present, cultural heritage is not the property of all the Japanese people. Some believe that sites should be utilized with the general public in mind, not just public officials, archaeologists and historical enthusiasts (for example, Sahara 1993:4–7). To this end Sahara proposes that information boards be written so as to be intelligible to people who have completed mandatory education. For this, less than 200-character explanations are appropriate. To focus attention on structures mainly relating to ancient bureaucracy tends to distance the general public by only presenting one aspect of the past.

Finally, there is the inherent problem of reconstruction sites themselves. By their very nature, they portray a static view of the past. By reconstructing a site, one frame from a dynamic history is chosen to represent the whole of that history. As such, great care needs to be taken when selecting which of such multiple views of the past is chosen, otherwise a distorted, simplistic or misleading image will be depicted (see Stone 1994:194–203).

CONCLUSION

In Japan, reconstruction sites have been a double-edged sword for archaeologists. Having partially achieved their first goal, protecting the past, archaeologists are in danger of losing direct control over their second, presenting the past. The public interest generated in the past has been exploited by the media, the government and the tourist industry and the past is now subject to interpretation for political and economic purposes, often to the detriment of historical accuracy. There is also a growing fear that the use of *Shiseki* for regional revitalization

will lead to a form of miniature nationalism, or 'localism', as each area promotes its own history above all others (Tsude 1995b).

At present, there is a balance in the distribution of authority over *Shiseki*, where everyone is content, but not completely satisfied. Archaeologists are working hard to maintain this equilibrium and counter the increasing political influence in the interpretation and presentation of the past by initiating public education programmes. Through these projects, archaeologists hope to make the general public better equipped to make their own interpretations. More effort is needed, however, to demonstrate to the public how the past is recreated, not only technically but also ideologically and socio-politically. Furthermore, to ensure that an accurate portrayal of the past is being presented, more emphasis needs to be given to research/educational reconstructions. More facilities devoted to experimentation and research for reconstructions, such as Butser Ancient Farm in the UK (see Reynolds, Chapter 7), need to be established, and site reconstruction based on the results of such experiments must be encouraged in Japan.

REFERENCES

- All Japan Cultural Properties Protection Association 1993. Cultural properties for tomorrow. Tokyo: All Japan Cultural Properties Protection Association.
- Ashio, N. 1991. Furusato sosei itchoen. [One hundred billion yen for homeland creation]. In *Kyujyu nendai no chiho jichi to furusata sosei*, Chiho jichi keiei gakkai (ed.), 160–9. Tokyo: Gyosei.
- Centre for Archaeological Operations (CAO) 1978. Kodai kaoku fukugenjittai tyosa. [Research on reconstructed ancient houses]. CAO News 13, 2. Nara National Cultural Properties Research Institute.
- Enaga, T. 1990. Yoshinogari isekigun. [Yoshinogari site]. In *Bunkazai hozon no jiten*. Bunkazai hozon zenkoku kyogikai (ed.), 196–7. Tokyo: Sanseido.
- Fawcett, C. 1990. A study of the socio-political context of Japanese archaeology. Unpublished PhD dissertation, Department of Anthropology, McGill University, Montreal.
- Jyubishi, S. 1993. Iseki siseki no hozon to katsuyo. [Preservation and utilization of archaeological sites]. *Asu eno bunkazai* 33, 19–30.
- Kito, K. 1989. Yoshinogari iseki wa 'hozon' sarete iruka. [Is the Yoshinogari site really preserved?]. *Akahata Newspaper* 13 December.
- Kudo, T and K.Sasaki 1992. Shiseki nejo no fukugen tatemono o meguru shomondai. [Issues on reconstructed buildings at the Nejo Historical Site]. *Nihon rekishi* 535, 95–104.
- Ministry of Education. 1995. Bunkazai no seibi katsuyo no suishin. [Promotion of restoration and utilization of cultural properties]. In *Bunkyo yosan no aramasi*, 272–3.
- Nakao, Y. 1986. Naniwa kyo. [Naniwa Palace-Capital]. Tokyo: New science sha.
- Nikkei Newspaper 1989. Yoshinogari no sendenkoka wa nihyakuokuen kosu. [Free advertising by the mass media totals more than twenty billion yen]. 15 April.
- Okamura, K. in press. Conflict between preservation and development in Japan: challenges for rescue archaeologists. In *Cultural Resource Management in Contemporary Society:* perspectives on managing and presenting the past, F.P.McManamon (ed.). London: Routledge.

- Ono, T. 1993. Yoshinogari ni ayakare. [Following the Yoshinogari site]. Nikkei Newspaper, 10 January.
- Sahara, M. 1993. Shimin no tameno shiseki. [Historical monuments and sites for the sake of the general public]. *Asu eno bunkazai* 33, 3–18.
- Sahara, M., Y.Otake and S.Jyubishi 1993. Toron. [A discussion]. *Asu eno bunkazai* 33, 61–70.
- Sankei Newspaper 1985. Naniwa no miya shiseki to Osaka jo koen ittai ni. [Unifying the Naniwa Palace and Osaka Castle sites]. 7 March.
- Sankei Newspaper 1988. Naniwa no miya o fukugen, geihinkan ni. [Reconstructing Naniwa Palace buildings as a guesthouse]. 29 March.
- Sankei Newspaper 1991. Fukugen takayukashiki soko to kodaisen kohyo de futatabi ippan kokai. [Reopening the reconstructed Storehouse due to popularity]. 4 September.
- Sankei Newspaper 1995. Osaka gorin no shimboru ni zenki Naniwa no miya o fukugen. [Reconstructing the Former Naniwa Palace as a symbol for the Osaka Olympics]. 6 September.
- Shiina, S. 1994. *Isekihozon o kangaeru*. [Thinking about site preservation]. Tokyo: Iwanami Shoten.
- Society for the Protection of the Naniwa Palace Site 1989. Naniwa no miya ato hozon undo no rekishi. [Development of the Naniwa Palace Site preservation movement]. In *Kura to kodai oken*, K.Noaki and Y.Ogasawara (eds), 210–13. Kyoto: Mineruva shobo.
- Stone, P.G. 1994. The re-display of the Alexander Keiller Museum, Avebury, and the National Curriculum in England. In *The Presented Past: heritage, museums and education*, P.G.Stone and B.L.Molyneaux (eds), 190–205. London: Routledge.
- Takahashi, T. 1990. Iseki fukugen muraokoshi ni katsuyo. [Utilizing site reconstruction for the revitalizing of rural areas]. *Asahi Newspaper*, 29 December.
- Tanaka, M. 1990. Rekishiminaosu shiryo chikuseki. [Accumulated data for the reconstruction of Japanese history]. *Asahi Newspaper*, 29 December.
- Tanaka, M, M.Inoue, K.Kihara, S.Aoyama and H.Nakano 1979. Bunkazaihogo to kaihatsu o megutte. [A discussion on cultural properties' protection and development]. In *Bunkazai hogo no jitsumu*, K.Kodama and H.Naoki (eds), 792–858. Tokyo: Kashiwa shobo.
- Tanaka, T. 1991. Furusato rekishi no hiroba jigyo ni tsuite. [On the Spiritual-Homeland historical park]. *Nihon Rekishi* 516, 97–103.
- Tsuboi, K. 1992. Issues in Japanese archaeology. Acta Asiatica 63, 1–20.
- Tsude, H. 1995a. Archaeological theory in Japan. In *Theory in Archaeology: a world perspective*, P.J.Ucko (ed.), 298–311. London: Routledge.
- Tsude, H. 1995b. Ima kokogaku ni towareru mono: Chikyu kokogaku. [The requirements of modern archaeology: global archaeology]. *Asahi Newspaper*, 21 July.
- Ueki, H. 1995 Naniwa no miya ato no hozon to katsuyo: kyuden kenchiku no fukugen ni mukete. [Preservation and utilization of the Naniwa Palace site: reconstructing the Palace buildings]. Unpublished lecture notes for the public lecture held at the Osaka City Museum on 16 December 1995.
- Yasuhara, K. 1979. Fudoki no oka. [Ancient landscape project]. In *Bunkazai hogo no jitsumu*, K.Kodama and H.Nakano (eds), 792–858. Tokyo: Kashiwa shobo.
- Yasuhara, K. 1987. Kankyo seibi jigyo keikaku no gaiyo. [Outline of Seibi project]. In *Shiseki Naniwa no miya kankyoseibi hokoku*, 4, M.Nagayama (ed.), 5–8. Osaka: Osaka City Board of Education.
- Yokoyama, K. 1994. Nihon kokogaku kenkyu no doko: Sosetu. [Trends in the study of Japanese archaeology: an introduction]. *Archaeological Japonica* 45, 1–3.
- Yomuri Newspaper 1994. Zenki Naniwa no miya no fukugen keikaku. [Reconstruction plan of the Former Naniwa Palace]. 6 March.

4 The origin and role of the Irish National Heritage Park

EDWARD CULLETON

INTRODUCTION

The Irish National Heritage Park, Wexford, contains the following reconstructions (Culleton 1990):

- Mesolithic campsite (Figure 4.1)—from c. 9000 BP
- Neolithic farmstead (Figure 4.2)—5000 BP
- Portal Tomb—neolithic
- Cist Burial—Bronze Age
- Stone Circle—Bronze Age
- Fulacht Fiadh—ancient cooking place using hot stones to heat water— Bronze Age/Iron Age
- Ogham Stone—earliest form of writing in Irish, probably dating from c.
 1800 BP. The letters are represented by varying numbers of strokes or notches carved along the edges of standing stones.
- Ringfort (Figure 4.3)—typical dwelling place of wealthy farmers 500– 1000 BP
- Crannog or lake dwelling (Figure 4.4)—500–1000 BP
- Corn drying kiln—500–1000 BP
- Horizontal water mill—500–1000 BP
- Early Christian monastery—tenth century
- Viking house (Figure 4.5)—eleventh century
- Early Norman castle (Figure 4.6)—830–850 BP.

The only original archaeological site in the Park consists of the bank and ditch of the earliest Norman fortification in Ireland, dated to AD 1169 (Bennett 1984/1985). The Park is 13 hectares in extent with winding paths and judicious tree planting screening each site. It was opened by the President of Ireland, Dr Patrick Hillery, on 12 June 1987. To date around three-quarters of a million people have visited the Park.



Figure 4.1 The mesolithic campsite at the Heritage Park made from hazel saplings and deer skins



Figure 4.2 The neolithic farmstead, small outhouse and small field with wheat sown in ridges



Figure 4.3 The ringfort showing the ditch and bank, with a strong oak palisade and the thatched roofs of the houses within



Figure 4.4 The crannog, an artificial island, with wattled palisade



Figure 4.5 This large Viking house is based on evidence found during an archaeolog ical excavation in Wexford town in 1988–89



Figure 4.6 The limewashed early Norman castle with imposing gatehouse

THE ORIGIN AND DEVELOPMENT OF THE PARK CONCEPT

It is always difficult to trace the germ of an idea but obviously one's professional background and friends and their extra-curricular interests all contribute in some measure. I have worked in the Soil Survey and Land Evaluation Department of the Agricultural Institute for most of my professional life. The Institute's work, in brief, was to determine how the land of Ireland could best contribute to the national wealth. My personal interest in history and archaeology combined with my work for the Institute led me to see our field monuments as part of our national resources, to be used for the material benefit of the nation. In other words, to help provide employment by attracting visitors to come, learn about and visually enjoy the monuments with which Ireland is still so richly endowed.

In this context I am referring not to the large monuments such as castles and abbeys, but to the smaller, though no less interesting, sites which pertain more to ordinary life. However, such monuments are often widely scattered, overgrown and inaccessible to the visitor. Nor is it possible without sufficient archaeological knowledge to visualize their original purpose and use. From my own work in archaeology (Culleton and Colfer 1974–75; Culleton and Mitchell 1976; Culleton 1984; Barry *et al.* 1984) and my experience in visiting sites with local and professional groups over the years, it was clear that few people were in such a position.

I therefore put forward a proposal in March 1983 that a selection of Irish field monuments be reconstructed at a single suitable site (Culleton 1983). The objectives for such a development would be:

- 1 To enhance direct and indirect employment by attracting visitors to a unique, interesting and pleasant experience by:
 - (a) demonstrating the original purpose and methods of construction of certain man-made features of the Irish landscape;
 - (b) showing how people lived, worshipped and buried their dead at different times in our history.
- 2 To educate Irish people, particularly young people, concerning their rich material heritage of which they are both heirs and guardians.

(Culleton 1983)

Implementing the concept

Through a fortunate combination of circumstances my proposal found immediate acceptance. First, the government was just then seeking job creation projects and was prepared to provide financial assistance and labour for such projects. Second, Wexford County Council, the local administrative authority, in making a town bypass, had acquired land for which they then had no obvious use. The conjunction of these circumstances, allied to a progressive County Council, was

in no small way responsible for the success which has attended our efforts to provide a National Heritage Park.

Role of Wexford County Council

The Council agreed to act as the statutory body in charge of the development and running of the Park. An advisory body was set up and the advice of an archaeologist was sought for each site. Despite the misgivings of some purists who pointed to the vast lacunae in our knowledge of ancient construction techniques and others who felt that the money would be better spent conserving existing monuments, it appears that most archaeologists fully endorsed the project. Up to the present the services of twenty-four professional archaeologists, drawn from the universities, the National Museum and English Heritage, have been utilized.

FUNDING, MANAGEMENT AND OPERATION

The project was seed funded by a grant from Wexford County Council followed by State grants. Eventually the State contributed over £1 million towards the development. The project was also supported by the Commission of the European Community, the State lottery and Bord Fáilte (National Tourism Board).

The Park is managed by the Wexford Heritage Trust, a legal entity consisting of members of diverse backgrounds, including two historians, an engineer, a trade union official, a lawyer, a hotelier, a representative of the Tourist Board, an accountant, administrators and County Councillors. The members are chosen by Wexford County Council and serve for a 3-year period which is renewable for further 3-year periods. A mandatory report is presented to Wexford County Council annually. The Trust relies on consultant archaeologists for advice regarding the individual sites constructed within the Park.

The development of the Park is overseen by myself as honorary curator; I liaise with the consultant archaeologists and a County Council engineer who supervises the construction work. Day-to-day operations are in charge of a manager with a professional background in management and marketing.

Role of nature in the Park

The Park consists of diverse environmental settings including woodland, open fields, lakes, riverside and wet meadow. This has enabled us to locate each site in its proper setting, as near as possible to what it would have been originally. For example, the Mesolithic hut, situated at a small lakeside, is surrounded by woodland typical of the Irish landscape around 9,000 years ago. By then only trees such as willow, birch, hazel and pine had re-established themselves following the end of the Ice Age. By the time the first farmers had arrived some 3,000

years later other species such as oak, elm and ash had become established (Mitchell 1976). This increase in species can be clearly seen at the Neolithic site.

The diversity of habitats, eighteen in all, while allowing environmental verisimilitude, also adds greatly to the enjoyment of the visitors. To cater for the increasing public interest in nature and the environment, a guidebook on the natural aspects of the Park has been prepared by an expert environmentalist and teacher (Hurley 1988). Future plans include activities such as identification of different plant and animal species, rocks, soil types and the provision of an easy-to-follow introduction to nature and the environment for schoolchildren.

THE ROLE OF THE PARK IN TOURISM AND THE LOCAL ECONOMY

Tourism in the Republic of Ireland brought in revenue of £1,114 million in 1994; this represents a rise of 88 per cent since 1988 (Anon. 1995). Tourism revenue accounted for 6.8 per cent of GNP and supported 94,000 jobs. These include jobs in tourism-related sectors and jobs supported by the spin-off effect of tourist spending throughout the economy (ibid.). Central to the development of the tourist industry is the provision of tourist attractions such as the National Heritage Park.

Visitor numbers and nationality

The number of visitors to the Park in 1988, the first full year in operation, was 75,000, peaking in 1990 at 83,000 and falling in 1994 and 1995 to the 60,000s.¹ A survey of visitors to the Park in August 1991 revealed that 74 per cent were Irish, 14 per cent British, 3.2 per cent German, 3 per cent American, 1.8 per cent French and 1 per cent Italian (Mooney 1991). Given that 1.3 million visitors annually enter through the ferry port of Rosslare, some 15 km from the Park, the scope for attracting a much higher number of foreign visitors to the Park is obviously immense. A marketing strategy to this end using brochures, leaflets and an audio-visual presentation is being vigorously pursued through the tourist office located at Rosslare.

Direct employment in the Park

This consists of a manager and five receptionists/guides. Administrative backup is provided by Wexford County Council. During the busy summer season, staff numbers are considerably augmented by archaeology and history undergraduates. In addition, a foreman and five unskilled staff maintain the Park and also help to construct simple buildings, lay down paths and look after the cattle, sheep and pigs.

While it is difficult to quantify, it is obvious that the influx of so many visitors to the Wexford area provides a considerable indirect benefit to the local economy, for example, by increasing numbers using local guesthouses, restaurants and

bars. However, the unanswerable question is how many would have come even without the added attraction of the Heritage Park? We would like to believe that we have enhanced the number of visitors to the area and thereby helped the local economy to grow and prosper. However, to date, no surveys have been undertaken to substantiate this view.

THE ROLE OF THE PARK IN EDUCATION

As stated in our original objectives, education was to be a primary aim of the Park and specialized programmes for both schools and the general visitor have been developed.

School visits

We have made a major effort to encourage school use of the Park and a measure of the attraction of the Park for schools is that between 1988 and 1994 approximately 220,000 students have passed through the gates. The reconstructions in the Park cover exactly the period specified in the Junior Certificate second-level, history course. A matching student guide and workbook, prepared by a panel of history teachers, is available to students (Waddell *et al* 1991).

On arrival, students watch a 15-minute audio-visual presentation, 'Ireland Through the Ages', which helps them to place the reconstructions in their historical perspective. Guides then take the students on a walking tour of the Park, visiting each site in chronological order. As well as explaining the background and significance of each site, the guides invite questions and comments from students. The core of guides has been trained by the honorary curator on the archaeological background to the sites and by a communications expert in how best to present the information to young people. All the guides have completed second-level education and one guide has a degree in archaeology. Some of them have a particular aptitude for dealing with young people and, in so far as is possible, are allocated to this task.

When teacher training courses or conferences are being held in the Wexford area, teachers are given special guided tours on request. This often stimulates them to bring their own students to the Park later. Some teachers bring along prepared worksheets which students complete as they go from site to site.

We have also encouraged the use of the Park in making educational TV programmes. To date, BBC Northern Ireland, BBC Wales, Belgium TV and Radio Telifis Éireann have availed themselves of this facility.

The general public

The general public is first introduced to the Park through the audio-visual presentation, 'Ireland Through the Ages', and a guidebook giving the background to each site is available at Reception. Visitors are able to move around the Park on their own and for those who choose to do so, short explanatory panels are

located at each site that complement the information in the audio-visual presentation and guidebook. Guided tours are provided on the hour every hour and guides are able to add significantly to the amount of information that visitors receive and can talk more generally about the Park and the reconstructions.

During the peak tourist season third-level students in archaeology and history are employed. These are attired in period dress, as far as it is known, and carry out appropriate activities such as Neolithic pottery making, weaving, cooking, Celtic scriptwriting and grinding grain in quern stones, as well as interacting with educational groups and general visitors.

THE BASIC PHILOSOPHY OF THE PARK

Thanks to the vision and dedication of Wexford County Council and all those involved in its development and maintenance, the Heritage Park is now recognized as an important national asset. The Wexford Heritage Trust therefore constitutes a *de facto* national body in charge of a national cultural centre. It was therefore of vital importance that the Trust laid down strict guidelines for the future development of the Park which would ensure its continuation as a model of its kind and do justice to its status as The National Heritage Park (Culleton 1991).

Visits to open air museums in other countries have shown that there is a marked tendency to keep adding more and more examples of different methods of construction or regional variation in buildings, showing either different social status, different methods of construction or regional variation in buildings. The end result is that the visitor may leave the museum with no clear understanding or appreciation of its purpose and only a confused picture of its content. This criticism has been voiced at recent meetings of the European Association of Open Air Museums (Czechoslovakia 1990, Sweden and Denmark 1991) and it is one that we hope to avoid at the National Park.

Validity of archaeological reconstruction

My original proposal envisaged the reconstruction of a range of houses and structures. Given the obvious lack of information on construction techniques, the great variety of buildings from any single period, the potential for shaping the ideas of thousands of visitors on living conditions in the past based on what they would see in the Park, the use of public funds that could be spent conserving the real thing and all the other problems and objections which could be raised, was it right to proceed? The concern is a very real one and has formed part of an ongoing debate within archaeological circles:

How much emphasis on communication and restoration should there be when we still have not completed a head count of all the monuments in the country? Education is protection but we must know what we are protecting...too-trite reconstruction does us a disservice. It can give a wrong impression that we have a full understanding of all past societies. Yet Munster's Iron Age is still a closed book while our knowledge of earlier prehistory is also quite weak. A too-slick approach could create the impression that further excavation and survey are little more than gilding the lily. Getting the balance right, between the mundane tasks survey, curation, excavation, etc., and the equally laudable efforts of fleshing out the past for the public, presents us with a set of problems which resemble a Gordian knot.

(Woodman 1989:1)

Who has the right to determine such weighty matters—a purist who would wait for more evidence, a community trying to create employment or a public simply seeking a modicum of enjoyment, even knowledge? A Gordian knot indeed.

Consultation with archaeologists resulted in offers of help for the project on condition that:

- all reconstructions would be designed and supervised by professional archaeologists,
- no false claims would be made about the reconstruction—no certitude would be claimed where it did not exist. We were to 'come clean' with the public.

The Trust running the Park believes that it is entirely valid within certain limits to reconstruct ancient buildings based on the extant archaeological evidence (validity is defined in Chambers English Dictionary 1990 as 'strength or cogency from being supported by fact'). I must confess that we are primarily motivated by the prospects of job creation. If utilizing the past makes this possible, so be it. This brings us up against the problem of authenticity in archaeological reconstructions. The policy in the Heritage Park, in so far as it is possible, is to use material similar to the original, for example, oak timbers, clay floors, straw and reed thatch. Nevertheless, some compromises were made, for example, a cement—sand mixture was used instead of lime mortar in some stone buildings. The biggest compromise, however, was made at the early Norman castle. For the Normans in Ireland the castle was a status symbol as well as a military strongpoint. Gleaming white it stood out on the landscape, emphasizing the dominance of the social and military scene. This whiteness was achieved by covering the timber palisade with lime mortar which was then limewashed. The effect was to make the palisade look as if it were made of stone. Another advantage was to make the fortification fire-proof. At the Heritage Park concrete blocks were used instead of timbers for the palisade. The blocks were then rendered with lime mortar and lime-washed. Thus the final appearance on the outside was similar to the original. The reasoning was

that, whereas timbers would have had to be regularly replaced, with all the attendant costs, the blockwork would last for many years.

Apart from job creation, we believe that there are a number of other factors which help to justify archaeological reconstruction. First, we believe that providing education not only to schoolchildren but to adults will help in both long- and short-term conservation. For example, a visiting landowner may recognize a hitherto unknown monument which may now be saved from the bulldozer. Second, the Park gives the public a better understanding of what these monuments were like originally in an enjoyable way. Third, the Park allows for the possibility of archaeological experimentation on methods of construction, durability of materials and other matters. Some experimental work has already been carried out at the Park. For example, Kelleher (1989:15) studied the efficiency of the ancient 'keyhole'-type corn drying kiln and found it to be quite good. Neolithic pottery making using the coil technique and firing in a bonfire has also been carried out successfully (O'Dulaing 1992:11-12). On the negative side, Kelleher (1989) concluded that experimental research and the general public do not mix; the latter are too distracting and their presence can become a hindrance to any experimental work. No experimental monitoring of decay rates has yet been carried out at the Heritage Park.

Clear aims and objectives

These were clearly stated in the original project proposal (see above) but based on our experience since 1987 a third objective, that of providing an enjoyable visit, should be added to them. Survival is a clearly recognized imperative, no less important for a Heritage Park than for any other business. Experience has shown us that providing enjoyment is the key to success in the heritage field. Whatever grandiose terms we may apply to ourselves and whether we like it or not, we are in the entertainment business. For this reason we pay particular attention to the comments of our customers. These generally reflect the importance of such things as tour guides, wildlife, vegetation and clear water, in addition to the archaeological reconstructions.

Cultural considerations

It seems that most people come to the Heritage Park to satisfy their curiosity about the past. It is vital that the past be presented as accurately as current archaeological research permits. Sites should not be glamorized or sanitized—we are trying to show a different kind of reality where life was often harsh, disease-ridden and short. We are not trying to influence people, but simply to help them understand the origins and role of certain human-made features on the Irish landscape.

Because the Heritage Park is not a museum in the narrow sense of being a repository for actual antiquities, original archaeological artefacts are not accepted for display, apart from those found within or close to the Park. During

archaeological excavations at the early Norman fortifications four silver pennies dating from the reign of Henry III were found (Culleton 1990:48). Replicas of these are on display at the Reception Centre in the Park, the originals are retained in the National Museum, Dublin. Also on display, but permanently submerged, is a piece of handworked oak wood taken from the Waterford Estuary in 1991. This was given a radiocarbon date of 3728 ± 20 years BP by the Radiocarbon Research Unit, Queens University, Belfast, but its former function remains a mystery.

Commercial considerations

As already stated, one of the primary objectives of the Park is to attract visitors to the Wexford area and thereby create jobs, both directly and indirectly. Admission prices have a bearing here. If we are seeking more direct employment then we should push admission prices to the limits that the public will bear. The extra income will enable us to take on more people. If the emphasis is to be on indirect employment—for example, in hotels, guest houses, shops, and restaurants—then prices should be kept as low as possible. This question has not yet been resolved.

A preferable way of increasing income is through sales, which have the merit of being voluntary. A policy of sales of objects made in, and unique to, the Park such as replica Stone Age pottery, woven belts and table mats, leather goods as well as stone-ground flour from the mill is now being pursued. However, our most vital product is the Park itself, a rare combination of unique structures in a natural landscape. The Park's preservation from any overt commercialism such as advertisements, acknowledgements and so on is the most likely way to ensure its long-term attractiveness and viability.

There is an ever-present danger of a clash between cultural and commercial objectives which will be exacerbated if visitor numbers begin to decrease at any time. It would be regrettable if attractions not in keeping with the original aims and objectives were introduced. Introduction of such non-archaeological attractions should be regarded as a failure of imagination, knowledge and know-how on the part of the management. Indeed, the present policy of the Heritage Trust of maintaining and/or increasing the number of visitors is to preserve the cultural and environmental integrity of the Park, to introduce appropriate crafts such as pottery making, cooking, weaving on a vertical loom, and using the pole lathe at each site. Visitors are encouraged to 'try their hand' at some of these activities. However, it is worth stressing that the Heritage Park is not a Folk Park where traditional crafts and customs still in the folk memory are kept alive. Our Park is based on archaeological evidence from excavations of prehistoric, early Christian and early Norman times. This has enabled us to follow a clear, chronological pattern in a way not always possible by Folk Parks.

How many reconstructions?

A balance needs to be struck between the public's attention span and the maintenance cost of the buildings. My view is that people visiting museums remember less than 10 per cent of what they have seen and therefore buildings in the Park need be only sparsely furnished, quite apart from the fact that little information is available on such furnishings anyway. A more difficult question is for how long should we plan to keep people in the Park? Some open air museums provide a full day's viewing, but this requires a large staff, full-scale restaurant and many activities. From a questionnaire (Mooney 1991) and discussions with visitors, it would seem that two to two-and-a-half hours is the maximum time that people wish to spend in the Park. For example, many visitors do not walk the extra 300 metres to the early Norman castle and fortifications because it would add over half-an-hour to their time in the Park.

This then should dictate the number of reconstructions to be erected. It would seem that the Park has just about the correct number and that additional reconstructions would not be justified either from a visitor interest or a financial point of view. Also, apart from the initial costs of construction, maintenance and even replacement of some buildings would be costly and would be an unnecessary burden on the Park.

CONCLUSION

The National Heritage Park was developed when comparatively few attractions of this kind existed in Ireland. Its purpose was to provide employment and to make Irish people aware of their rich archaeological heritage. A feature of the project was the enthusiasm, not only of government agencies, but also of most archaeologists. This was rewarded by the large number of visitors who flocked to the Park, particularly in the earlier years. Increasing or sustaining these numbers will demand innovative ideas, especially for younger visitors used to seeing space age technology on television. However, from the above discussion, it is obvious that the proper and fruitful development of the National Heritage Park requires sensitivity to its original aims and objectives coupled with the accepted need to provide an enjoyable experience for visitors. Nevertheless, decisions on all matters of an archaeological or environmental nature should be made only by persons whom the Trust is satisfied understand and accept these guiding principles.

People in the Western world are keenly interested in their past. How ideas of that past are transmitted without undue distortion will be a perpetual challenge, not only to archaeologists and historians who must provide the information, but also to those who wish to reconstruct that past as accurately as possible. Adherence to the basic guidelines adopted by the governing Trust for the development of the Heritage Park—preserving its archaeological verisimilitude and environmental integrity—will, I believe, prove the most effective way of ensuring its future.

NOTE

1 No proper method of checking was in place in the early years, and the figures for 1988/89 are probably exaggerated. It is also worth noting that a feasibility study (Coopers and Lybrand 1986) forecast that the number of visitors in 1988 would be around 40,000 and would rise slowly over the following years.

REFERENCES

Anon. 1995. Tourism Facts, 1994. Dublin: Bord Fáilte.

Barry, T.B., E.Culleton and C.A.Empey 1984. Kells motte, County Kilkenny. *Proceedings of the Royal Irish Academy* 84C, 157–70.

Bennett, I. 1984/85. Preliminary excavations at Ferrycarrig ringwork, Newtown, County Wexford. *Journal of Wexford History Society* 10, 25–43.

Coopers and Lybrand 1986. The Irish National Heritage Park feasibility study. Marketing consultants' unpublished report.

Culleton, E. 1983. Proposal for development of Heritage Park at Ferrycarrig Wexford. Unpublished ms.

Culleton, E. 1984. Early Man in County Wexford, 5000 BC-300 BC. Dublin: Mount Salus Press.

Culleton, E. 1990. Guide to the Irish National Park. Wexford: Heritage Trust.

Culleton, E. 1991. Guidelines for future development of the Irish National Heritage Park. Unpublished ms.

Culleton, E. and W.Colfer 1974–75. The Norman motte at Old Ross: method of construction. *Journal of the Old Wexford Society* 5, 22–5.

Culleton, E. and G.F.Mitchell 1976. Soil erosion following deforestation in the Early Christian period in south Wexford. *Journal of the Royal Society of Antiquaries of Ireland* 106, 120-3.

Hurley, J. 1988. A Guide to Nature in the Irish National Heritage Park. Wexford: Heritage Trust.

Kelleher, E. 1989. The reconstruction of corn drying kilns at Ferrycarrig, Wexford and Lisnagun, County Cork. In *Synopsis of Papers Presented at Conference on 'Reconstruction and Archaeology'*, *University College*, Cork, 3–4 February 1989, C.Rynne and G.O'Sullivan (eds), 15. Cork: University College.

Mitchell, G.F. 1976. The Irish Landscape. London: Collins.

Mooney, O. 1991. Irish National Heritage Park, users survey, for Wexford Heritage Trust. Unpublished ms.

O'Dulaing, D. 1992. A Neolithic pottery revisited. Archaeology Ireland 6, 11–12.

Waddell, M., J.McCormack, M.Waddell and F.Hyland 1991. Student Guide and Workbook for Irish National Heritage Park. Wexford: Heritage Trust.

Woodman, P. 1989. Foreword. In Synopsis of Papers Presented at Conference on 'Reconstruction and Archaeology', University College, Cork, 3–4 February 1989, C.Rynne and G.O'Sullivan (eds), 1. Cork: University College.

5 Resurrection and deification at Colonial Williamsburg, USA

IVOR NOËL HUME

HISTORICAL BACKGROUND

Unlike the best known of British America's colonial capitals, Virginia's Williamsburg failed to prosper and expand in the post-revolutionary years. Instead, once the legislature had moved to Richmond in 1780 the town went into slow decline and might have disappeared altogether had it not been for the continuing presence of the College of William and Mary and the state lunatic asylum. Indeed, as recently as the 1950s it was a popular Virginia joke that the place was home only to the lazy looking after the crazy (Rouse 1973:5).

Founded in 1699 to move the legislature inland from the unhealthy and crumbling Jamestown, and laid out on majestic classical lines by Governor Francis Nicholson, Williamsburg was slow to grow, and most of what was built was of wood, albeit on brick foundations. Major exceptions were the capitol building at one end of the mile-long Duke of Gloucester Street and the College at the other, each a handsome brick structure that burned more than once, the Capitol for the last time in 1832 and the College during the Civil War. The governor's mansion (called the Palace) burned in 1781 and in 1885 so did the brick lunatic asylum. Of the major public buildings, only the parish church, the Court House of 1770, the record office, and the gaol escaped.

The town was built on a ridge of high ground on the peninsula flanked on the south by the James River and on the north by the York, and in maritime-shipping reach of neither. Consequently, it was left to the harbour towns of Hampton, Yorktown, and Norfolk to hold their own through the nineteenth century, while Williamsburg with little trade and no major industry slowly surrendered to time and termite. In 1842 a major fire destroyed an entire city block and in 1859 the best of the town's hostelries, the Raleigh Tavern, was reduced to ashes; so, too, was the main college building, reportedly at the hands of drunken Union troops in July 1865 (Goodwin 1940:311). The post-Civil War years accelerated the decline, the town having continued to be occupied by Northern troops who

wrought their own mischief and left the inhabitants poverty-stricken but fiercely proud of their heritage, thereby maintaining their dignity through the humiliation of the Reconstruction period.

Although largely forgotten today, it was this sense of history that kept Williamsburg alive and led eventually to its resurrection. In 1884, Mrs Charles Washington Coleman invited school friends of her recently deceased daughter, Catherine, to her house to create a society in the child's name whose first project would be to repair the fabric of the church and its graveyards. Mrs Coleman's description of the churchyard epitomized the society's patriotic wistful longing to restore both the church and a way of life that would never return: 'Decay threatens to remove in some instances every trace of names and virtues recorded so long ago by loving hearts in memory of those who founded the Commonwealth of Virginia' (Packer 1989:5). Out of the Catherine Memorial Society emerged an association having broader goals, one that survives today as America's oldest preservation society, the Association for the Preservation of Virginia Antiquities (APVA). With statewide support, the APVA made the preservation of the powder magazine on Williamsburg's Market Square its first essay into historical restoration—two of the 'Powder Horn's' walls having collapsed in 1895. The restoration may have been carried out with more zeal than scholarship, but without it the building would have been lost (ibid.: 22).

The archaeologist's trowel (or shovel) had yet to be felt in Williamsburg, but between 1900 and 1906 the ladies of the APVA (with valuable male support) undertook the excavation of the ruined church at Jamestown in time for a new nave and chancel to be erected to mark Virginia's 300th birthday in 1907. Three years earlier, with the first Jamestown digging under its belt, the APVA was given the site of the Williamsburg Capitol whose foundations it proceeded to uncover and cap with concrete. At about the same time the City gave it the ruined colonial gaol, prompting the members to erect historical markers on other Williamsburg sites that they considered important, for example, William Parks' printing office (1736) and the first theatre (1716). In short, a grass-roots preservation movement was abroad in a town which, as early as 1835, had been described 'as little better than a deserted village...without even venerable ruin to rescue its decay from insignificance'—this the opinion of a distinguished foreign visitor, Charles Augustus Murray, grandson of Lord Dunmore, Virginia's last royal governor (Yetter 1988:37).

EARLY INVESTIGATIONS

In February 1903, the Reverend W.A.R.Goodwin arrived to assume the rectorship of Bruton Parish Church, an arrival as significant to the future of the town as had been the day that Governor Nicholson first took pen to paper and drew a line eastward from the College. Goodwin brought with him an educated interest

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in archaeology and the preservation of antiquities; more important, he was a Virginian with a fervent desire to see the Commonwealth restored to the dignity that had been torn from it in the aftermath of the Civil War. In the space of five years he was to see the restoration of his church completed, having had no small hand in the work himself (Goodwin 1940:91).

Goodwin, with his 8-year-old daughter Evelyn as his archaeological assistant, ripped up the church's wooden floor and dug down to expose the remains of partially rotted coffins. Fifty years later, the details of this enterprise were among Evelyn's most graphic memories of life with her father.

I learned more history in those days than I have ever learned since, because each day was an adventure and Father always took time to explain.... I needed no picture to bring back the musty smell of the earth, [she recalled] the strange odour of sanctity, and the feeling of awe that it stirred in me as a little girl. Perhaps my father with his inspired understanding realized that skeletons and coffins might frighten a child, and so he constantly talked of life, of noble deeds of by-gone days, of Jesus and the open tomb.

(Farr 1957:5)

The 1907 Jamestown Exposition, whose approach had inspired all this activity, came and went, and Williamsburg once again turned to talking about its past rather than doing something for its future. Goodwin must have shared the let down, and when an offer came to take over the pastorate of a much larger and wealthier parish in Rochester, New York, he accepted.

America's entry into the First World War had been preceded by the ever-opportunistic Dupont Company building a munitions factory on the outskirts of the genteel and still decaying town. A dormitory community quickly sprang up to house the workers—10,000 of them—all spending their money in Williamsburg's stores and bars (Davis 1926:611–13). The first automobiles had lurched through the town's still-unpaved Street in 1921–22, as part of the hard-surfaced road system linking Richmond with the port of Newport News, the livery stable was quickly giving way to petrol stations. When the Reverend Goodwin returned in 1923 he did not like what he saw.

GOODWIN'S DREAM

Goodwin returned, not as rector but as professor of religion and director of endowment for the College of William and Mary. 'It gave a real hurt to the soul', he wrote, 'to see a beautiful colonial building bought to be torn down to make place for a garage, or to see ancient garden spaces covered over with shoddy tin shops and tin cans' (Davis 1926:8–9). Something had to be done, and remembering a book that had inspired him as a boy, Goodwin decided that

he was the one to do it. The book, which remained in his library throughout his life, is said to have been entitled *Hidden Cities Restored*.¹

In the spring of 1924 Dr Goodwin wrote to John D.Rockefeller, Jr. seeking financial help in restoring William and Mary's three colonial buildings, and shortly afterwards turned his attention to Henry Ford. In a letter to Edsel Ford, he came straight to the point: 'I want your father to buy Williamsburg', and then with a surprising lack of tact he accused the Fords, father and son, with being 'the chief contributors to the destruction of this city'. Added Goodwin, 'most of the cars which stop at the garages and gas tanks are Ford cars' (Fosdick 1956:277). It was an undeniable dramatic approach and scored high marks for audacity, but the Fords were neither contrite nor captivated.

The Ford episode would have no relevance were it not that, in a letter to Henry's brother William, Goodwin provided the first hint that he was thinking not only about preserving surviving buildings, but also of reconstructing others that existed only as buried foundations: 'I should like to have the old Raleigh tavern restored, where Jefferson danced with his sweetheart Belinda, and have the waiters all dressed in Colonial garb' (letter in Colonial Williamsburg archives).

Dr Goodwin's use of the word restored in describing the hoped-for resurrection of the Raleigh marked the beginning of a semantic confusion that exists among many laymen (and some not so lay) to this day. Where does restoration end and reconstruction begin? In 1924, however, this was a question of no concern to Goodwin, any more than were the ethics of restoration. He was free to ride the range of his imagination unencumbered by the philosophical fences that later preservationists would erect to snag and snare themselves at every turn. But for Goodwin, without money to turn his dream into reality, anything was possible.

The series of orchestrated coincidences that brought John D.Rockefeller Jr. and Dr Goodwin together need not be spelled out. However, it is pertinent to recall that in 1903, thanks to the cajoling of epigraphist James Henry Breasted, Rockefeller had begun to support the University of Chicago's archaeology in the Near East and later became the founder of the University's prestigious Oriental Institute. Breasted, like Goodwin, was given to expansive and expensive dreams, one of which involved rebuilding the 1902 Egyptian Museum in Cairo. Rockefeller agreed to provide 10 million dollars for the project, but due to French interference and the Egyptians' propensity for haggling, the project stalled (Fosdick 1956:361ff.). In the summer of 1926, Rockefeller met Goodwin and began his interest in Williamsburg. Later in the year he made his first commitment to it.

Had the new Cairo Museum been funded, it may be argued that Williamsburg would not; instead the 10 million remained untapped and available to be put to the service of a more appreciative nation—his own. The ultimate irony, of course, is that seventy years later Colonial Williamsburg has become one of the world's largest and most visited museums while Egypt's treasures remain in the building Breasted considered inadequate in 1926.

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By the autumn of that year Goodwin had gone into debt to buy several threatened properties and was in the process of restoring the George Wythe House on Palace Green which then served him as his parish house. While doing so Goodwin had met a young Boston architect, William G.Perry, whose car happened to break down on the Green. Consequently, when Rockefeller agreed to underwrite a survey of the town's remaining historic buildings, Goodwin offered Perry the job. Under the cover of night, so that inquisitive town's people should not question who might be backing Goodwin's dream, he and Perry measured from one end of the central Duke of Gloucester Street to the other (Fosdick 1956:284).

When shown the plan, Rockefeller was at first reluctant to commit funds to the whole town, but wanted to limit his financing to the areas immediately around the Palace and Capitol using a back street (Francis Street) as a causeway between them. He later relented, making his intent clear to his administrative associate Colonel Woods. He wrote:

It is my desire to carry out this enterprise completely and entirely ...[and]...to restore Williamsburg, so far as that may be possible, to what it was in the old colonial, days and to make it a great centre for historical study and inspiration.

(ibid.: 284)

He would later add that 'no scholar must ever be able to come to us and say we have made a mistake'.

But how was this to be accomplished, and how were mistakes to be avoided? John D.Rockefeller had been as generous as money could make him. But what could money buy? Acquiring real estate was one thing, knowing what to do with it quite another. Dr Goodwin, for all his business acumen, was a dreamer who knew that 'ghosts of the past haunted the houses and walked the streets at night' (quoted in Hayes n.d.). The chosen architects had no psychic hang ups, but Messrs Perry, Shaw and Hepburn came from Boston with New England architecture in their bones.

In October 1927, at Goodwin's bidding, William Perry held a New York meeting with several consulting architects to review his firm's proposal. Among those present was Fiske Kimball, director of the Philadelphia Museum of Art and the nation's leading preservationist, and A.Lawrence Kocher, then chairman of the Committee on Historic Buildings for the American Institute of Architects. Summarizing the results of the meeting, Goodwin concluded that Kimball was 'on the side of the archaeological architects who believe that everything that was known to have been erected at a certain period, whether beautiful or nor, should be reproduced faithfully'. However, other consultants argued that 'because a certain feature was produced in 1700, which was not artistically or architecturally correct, it should not necessarily be accurately reproduced or restored. It should be improved on and made more pleasing' (Shurcliff 1937:58).

Seventy years later the debate continues, and even in Williamsburg not all the restoration staff has been consistently on the side of the 'archaeological architects'. In truth, although the chairman of the Art Commission of Virginia called both Kimball and Kocher 'archaeologists', neither had ever directed an excavation designed to interpret the material culture of the colonial period (letter to Perry, Shaw, and Hepburn, in Colonial Williamsburg archives). Nevertheless, it did not occur to the architects that archaeology involved anything more than setting crews of local labour to dig for foundations, and in April 1928, the first gangs got to work at the sites of the Capitol and Raleigh Tavern. By March of the next year, it seems that both jobs were completed, for in that month the demolition of a modern building caused it to collapse into the already excavated Raleigh foundation. The apologetic wrecker was of the opinion that 'the walls have sustained considerably greater damage from exposure to the elements for the past three months than they have from debris falling on them' (letter in Colonial Williamsburg archives).

Acting on the advice of Fiske, Kimball, Perry and Co. hired the man whom Kimball considered had the right qualifications for the position of Williamsburg restoration archaeologist. Today one would require someone able to employ excavation techniques capable of extracting whatever information the ground had to offer, and the knowledge to make full use of both artefactual and documentary data to accurately interpret the cultural history of eighteenth-century Williamsburg. The first calls for prior experience in excavating American urban sites, and the second for a catholic knowledge of British and American artefacts from the seventeenth to the twentieth centuries. Kimball's choice had command of none of these.

Prentice Van Walbeck Duell was born in Indiana in 1894 and while still a boy had moved to Tucson, Arizona. There he obtained work in the drafting room of a respected architect who, in turn, sent Duell to the University of Arizona to study archaeology under Professor Byron Cummings, then Dean of Aboriginal Archaeology in that state. Duel later became a specialist in Spanish mission architecture, and later still would be remembered for his skills as a draughtsman working for Breasted in Egypt. In short, when Duell arrived in Williamsburg to take charge of archaeology, first at the College and then at the site of the Governor's Palace, he was already committed to his Egyptian contract, and departed before either project was completed, leaving architectural draughtsman, John A.Zaharov, in charge (pers. comm., John Harraras, Tuscon, Arizona 1979, and ms. in Colonial Williamsburg archives).

In New York, Colonel Woods evidently thought it odd that the senior archaeologist (whom Woods thought was an historian) should so quickly depart, but Perry reassured him that Duell would 'keep in practical touch'. This he did in a series of postcards written from Rome, Thebes, and Sakkara. When asked whether he could devise a better solution to Williamsburg's immediate archaeological needs, Duell answered that all good archaeologists were already working and that 'the employment of any of those available he would deplore' (letter in Colonial Williamsburg archives).

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Handing the archaeological hat to draughtsman Zaharov was a clear portend of things to come. The restoration of Williamsburg would not grind to a gear-stripping halt if a professional archaeologist was not to be found—and it was the architect's own archaeologist who taught them so.

The summer and fall of 1928 were days of intense activity, with no hint of the economic cloud hovering just beyond the horizon. Between July 1927 and January 1929, no fewer than 195 properties had been purchased, thirty-seven of them original colonial buildings. Boston draughtsman A. Edwin Kendrew joined the architectural team at the end of 1929 and remembered it is a 'turbulent time in which a great deal of momentous decision-making was going on'(pers. comm., A.Edwin Kendrew c. 1978). Properties were being traded, churches pulled down and replaced, roads and the railway lines were shifted, the power company was relocated, a train station built, along with a new high school to replace one that stood inconveniently on Palace Green. It is small wonder, therefore, that nobody had time to worry that the architectural archaeology was being left to the absent archaeologist's assistant.

Into the midst of the hurly-burly of the spring of 1929 stepped a new quasi-archaeological figure, Arthur A.Shurtleff, President of the American Society of Landscape Architects and Williamsburg's first landscape architect. Before long he had set up his own and seemingly independent archaeological unit with a self-issued licence to hunt for gardens. Absent much of the time Shurtleff found moments to give his on-site assistant sound advice: 'Be sure to have your findings photographed by a local photographer. Do not rely on your own snapshots.' Eight days later he sent in reinforcements. A telegram to the building contractors read: My assistant Mayall arriving Williamsburg Sunday stop Will need six or eight laborers Monday morning to dig trenches to find old foundations stop (telegram in Colonial Williamsburg archives).

To Goodwin, the amateur archaeologist, the horse was out of the stable with neither halter nor saddle. Everywhere he looked, buildings were either going up or coming down. Projects like the excavation of the Governor's Palace that today might take a year and more, were completed in two months without the supervision of a suitably trained archaeologist or backed up by a conservation laboratory.

On 4 June 1930, Goodwin visited the excavation of the first theatre site and found labourers at work without a supervisor in sight. 'No real care was being taken to look out for bits of china, glass, and other remains of former habitation,' he complained. 'In less than five minutes,' he went on, 'I picked up over a dozen pieces of china and glass, any one of which, under expert examination, might have helped to determine the nature and date of the building or buildings which stood on this foundation' (memo to Kenneth Chorley, 5 June 1930).

That statement is the most profound to survive from the first years of Williamsburg's archaeology, recognizing as it did the historical and cultural potential of excavated domestic artefacts. It is true that Goodwin assumed that 'under expert examination' the fragments could speak for themselves, and did

not understand that it was their relationship to one another in the stratigraphy of the ground that could transform them from mere nouns into historically revealing sentences. Nevertheless, his was a landmark statement, written in the no-nonsense style for which Goodwin was renowned. 'This archaeological work is either not worth doing at all,' he snapped, 'or it is worth doing well' (memo to Kenneth Chorley, 5 June 1930).

Post-mortems were held, memos circulated, and good intentions sprouted, but lacking an understanding of the rules of stratigraphy, Williamsburg's archaeology continued to limit itself to shovellers digging for foundations and to the retention of such artefacts that looked interesting or related to the architectural studies. Ironically, the basic rules of stratigraphic interpretation had been laid down by Williamsburg's own Thomas Jefferson in his 1785

Notes on The State of Virginia.

The first excavations at the Capitol, the Raleigh, and the Palace had been full-scale area clearances that involved shifting and moving out huge quantities of dirt. By 1931, however, a new method had been devised and came to be known as cross-trenching. Laid out at a 45° angle to the street lines, the trenches were a shovel's blade wide and a shovel's length apart (five to six feet). The excavated dirt was thrown up onto the balks between the trenches and then shovelled back again when no structures were encountered. It was a clever means of locating foundations with minimal digging, but it played havoc with the stratigraphic inter-relationships of the sites' cultural development.

Having learned through the Prentice Duell fiasco that an architectural draughtsman could more intelligently provide the needed architecturally related information from the ground than could a novice Egyptologist, the architects were content for one of their own to be Williamsburg's official archaeologist—a situation that persisted until 1957.

In 1933 the Great Depression had finally caught up with Rockefeller's hitherto financially cushioned Williamsburg project. Never a man to give indiscriminately, every expenditure had been budgeted and overruns (which were common) carefully scrutinized. In a letter to Duell, research director Harold Shurtleff wrote that

Things are tailing off here, and the program has been more or less held up indefinitely.... All the excavations have been of the simplest sort and have been finished up—I suppose for good—so the archaeological chapter is finished except for the possible publication...which now seems a matter that will have to be postponed indefinitely.

(memo in Colonial Williamsburg archives)

And it was.

At the end of March 1933, the foundations of forty-five 'main buildings' had been uncovered, as had the remains of 107 outbuildings; thirty-six wells had been discovered and partially explored, and eleven garden walls had been located.

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The foundations of nineteen still-standing colonial buildings had been studied along with another twenty-three outbuildings and eleven wells. No one but a modern archaeologist could fail to be impressed by such figures—253 archaeological features fully investigated in five years. Today twenty-five or thirty would be considered a precipitous rate of progress.

In an address to the Daughters of the American Revolution delivered in April 1934, Dr Goodwin declared that 'up to the present time we have either moved or destroyed 345 buildings, restored sixty-three, reconstructed seventy-two, and built two business blocks containing stores and offices of Colonial design' (Goodwin 1934:11–12). By this time the work of creating Colonial Williamsburg was at a virtual standstill. The archaeological draughtsmen had been let go, transferring their non-too-relevant experience first to the Yorktown battlefield and then to seventeenth-century Jamestown. Although one of the draughtsmen, James M.Knight, was rehired at the end of 1936, progress was distinctly low key until halted again at the outbreak of war. In spite of the halcyon days of renewed patriotism that followed at its end, the number of buildings and sites worked on in the immediate post-war years were few, the most important being reconstructions of Christiana Campbell's Tavern and Printing Office.

With the arrival in 1957 of two British archaeologists from London's Guildhall Museum, the role of archaeology abruptly changed—to the dismay of the old guard architects who were more comfortable with the sight of shovels delving than trowels scraping. Excavations that had hitherto taken six weeks would henceforth take months, and sites that had previously yielded several hundred retained artefacts, when re-excavated using the Wheeler—Kenyon grid system, augmented the collections with hundreds of thousands. Through the next thirty years only one major building was reconstructed, namely the Public Hospital that was destined to become the entrance to the DeWitt Wallace Decorative Arts Gallery.

Williamsburg's first archaeological museum had been installed in the Court House of 1770 in 1933, the artefacts largely architecture related: tools, locks, hinges, and the like tastefully arranged in patterns reminiscent of haberdashers' samples. Nevertheless, these exhibits were much praised and hailed as the proof of the authenticity that lay behind every building.

THE ARCHITECTS' LEGACY

It may have been the sheer scope of the Rockefeller achievement at Williamsburg that made it the yardstick against which to measure superiority in historic preservation and at the same time made the name synonymous with gracious living. Its buildings, its paint colours, its fabrics, and its gardens were copied nationwide. 'Doing a Williamsburg' became the dream of uncomprehending entrepreneurs from Canada to Jamaica. It is true that nothing as vast had been attempted before or since. Yet, like most idols, there was clay in its feet.

The Williamsburg that the 1930s' architects recreated was a child of its time. Just as the ladies of the Catherine Memorial Society had longed to retrieve their pre-Civil War dignity and deference, so in the harsh years of the Depression whose legacy lingered through the 1930s, the restoration of Williamsburg also reflected a need for a kinder, more gracious world. Those of the houses that were opened to the public as exhibition buildings were furnished with the best of English antiques. Hostesses in ball gowns received visitors to the taverns with the same grace as they greeted them at the Governor's Palace. Every house, every privy, every fence, glowed with fresh paint, and the gardens could be relied upon to bloom on cue, creating, as Goodwin put it in the National Geographic, 'an environment of charm and quiet loveliness' (Goodwin 1937). Even a turn in the pillory was more fun than frightening. The fact that the eighteenth-century town's permanent population of about 1,600 was half white and half slave was barely mentioned. The architects, too, had been suborned by Dr Goodwin's romanticism, and instead of reconstructing a town that reflected a slow development from its seventeenth-century Jamestown roots, they had created a community that was instantly Georgian. Regardless, for example, of evidence both documentary and archaeological, that leaded casement windows were common throughout the town during much of the eighteenth century, Georgian implied, and got, sash frames—even for the smallest dormer.

Almost from the outset, it became apparent that Williamsburg could not be restored to a given moment in time. Instead, each lot had to be developed on the basis of the strongest surviving evidence no matter what its date. Thus the Capitol's most substantial foundations dated prior to a fire of 1742, and so it was this building that has been reconstructed regardless of the fact that the soul-searching debates that led to the American Revolution took place in the later building. Total authenticity was not possible in the 1930s, nor is it today. Indeed, were it not for the naivety of Dr Goodwin and his fellow pioneers who believed that they could achieve the impossible, Williamsburg would still languish on the drawing board, its life restricted to endless academic argument and debate.

WILLIAMSBURG TODAY

Until the 1960s Colonial Williamsburg remained strictly an architectural endeavour, the ruling architects content to believe that visitors came to admire the buildings. But with the arrival of the English archaeologists [the present author and his wife] who voiced the heresy that the buildings were but frames for the life of the past, and that it was that life that visitors really hoped to see, interpretive attitudes began to change. Educators became dominant as the influence of the ageing and retiring architects declined, until in the mid-1970s a new heresy emerged. A freshly appointed director of research declared

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that he saw the nationally revered buildings and gardens of Williamsburg as 'a theatrical backdrop against which we can teach anything we choose' (Figure 5.1). In keeping with that philosophy the interpretive goals of Williamsburg have become much more collegiate and focus on the basic premise that Williamsburg exists to teach under the mantra of 'Becoming Americans'. As the focus shifted, the dwindling corps of retired staff members shook their heads in disbelief and muttered that this would never have done for Mr Rockefeller. But would it not?

After all, it was he who in 1927 had laid down the ground rules saying: 'It is my desire to restore Williamsburg, so far as that may be possible, to what it was in the old colonial days and to make it a great centre for historical study and inspiration' (Fosdick 1957:290). More than seventy years later The Colonial Williamsburg Foundation attracts approximately a million tourists each year who visit such restored or reconstructed exhibition buildings as the Governor's Palace (Figure 5.2), the Capitol (Figure 5.3), Public Gaol, and Bruton Parish Church, eat in any of four reconstructed taverns (Figure 5.4), and watch craft demonstrations that include coopering, printing, and boot and peruke making. Along with these and many another on-site activities, the Foundation sponsors such annual events as the Antiques Forum and Garden Symposium as well as individual lectures of seventeenth-and eighteenth-century history and the decorative arts.



Figure 5.1 Beribboned eighteenth-century 'fops' and 'dandies' banter with twentieth-century visitors along Duke of Gloucester Street



Figure 5.2 The reconstructed Governor's Palace



Figure 5.3 The reconstructed Capitol building

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Figure 5.4 In the small retail craft shops and public taverns that line Duke of Gloucester Street, visitors can dine on regional cuisine or purchase reproduction artefacts

While Colonial Williamsburg remains the US premier architectural and interpretive site for the colonial eighteenth century, the proliferation of neighbouring attractions competing for the average visitor's disposable income has forced the Foundation into a more aggressive promotional marketing posture that is perhaps most graphically demonstrated by its decision to no longer define its clientele as 'visitors' or 'guests', but as 'customers'.

The customers, nevertheless, provide part of the income needed to keep viable Colonial Williamsburg's educational and research activities. That these are still the foundation upon which all else stands has been demonstrated in 1997 by the opening of a \$35,000,000 library, laboratory, and collections storage complex. For the general public, however, the town with its restored and reconstructed buildings and their authentic period furnishings, coupled with an internationally renowned decorative arts museum, remain the attractions that bring both tourists and students to learn from and to enjoy the product of Dr Goodwin's and John D.Rockefeller's vision.

NOTE

1 It is more likely that the cited book was Dehass (1882) which went into several editions (the 5th in 1884) and was among the most popular American books on biblical archaeology.

REFERENCES

Davis, A.K. (ed.) 1926. Virginia communities in war time, Richmond, Va. In *Publications of the Virginia War History Commission*, Source Volume VI: 611–13.

Dehass, F. 1882. Buried Cities Recovered or Explorations in Bible Lands. Richmond, VA: B.F.Johnson & Co.

Farr, E.G. 1957. What Williamsburg Means To Me. Orange, NJ: The Marion Press.

Fosdick, J.D. 1957. John D.Rockefeller Jr.: a portrait. New York: Harper & Bros.

Goodwin, W.A.R 1934. Transcript copy of Dr Goodwin's speech: The restoration of Williamsburg, Virginia. *Colonial Williamsburg Archives*.

Goodwin, W.A.R. 1937. The restoration of Colonial Williamsburg. *National Geographic Magazine* 71, 403–43.

Goodwin, W.A.R. 1940. A brief and true report concerning Williamsburg in Virginia. *Colonial Williamsburg Archives*.

Hayes, E. n.d. The background and beginnings of the restoration of Colonial Williamsburg. Unpublished ms., Colonial Williamsburg Archives.

Packer, N.E. 1989. White gloves and red bricks. Association For The Preservation of Virginia Antiquities.

Rouse, P. Jr. 1973. Cows on the Campus. Richmond, VA: Dietz Press.

Shurcliff, A.A. 1937. The gardens of the Governor's Palace, Williamsburg, Virginia, Landscape Architecture 27.

Yetter, G.H. 1988. Williamsburg before and after: the rebirth of Virginia's colonial capital. *Colonial Williamsburg Foundation*.

6 Shakespeare's Globe: 'As faithful a copy as scholarship...could get'1; 'A bit of a bastard'2

TIM SCHADLA-HALL

INTRODUCTION

The Globe Theatre, or more properly the International Shakespeare Globe Centre (ISGC), is far more than an attempt to reconstruct a late Elizabethan playhouse. Unlike many reconstructions, it has a continuing experimental role in the context of both acting and today's society. It was developed with a range of aims and motivations which, over a period of at least thirty years, changed and which have also been documented in detail. Recently described as 'a leviathan, a laboratory, a constant conversation' (Patrick Spottiswoode, pers. comm.), as a reconstruction the theatre building itself attracts continuing praise and attack, but given the wide range of aspirations behind the project, the long gestation period and the increasing quantity of published material about the project this is hardly surprising. Turner (1998:3) recently summarized many of the criticisms but nevertheless managed to conclude that 'the many caveats notwithstanding, an enormous debt of gratitude is owed to the prime movers in the reconstruction of the Globe on Bankside.'

One of the criticisms offered recently was the failure to reconstruct the exterior decoration in what was probably decorative plasterwork and painting (Wilson 1997:742), and yet discussion on the exterior appearance of the building is still taking place (Spottiswoode, pers. comm.). Discussion of exterior and interior finishes is undoubtedly important—but might not be as important as ensuring that the *spaces* created in the process of reconstruction represent those available in 1603; the 'decoration debate' allows consideration of a scale of 'needs' for reconstruction which can only be considered against the aims of a reconstruction. Likewise, the debate about the correct position of the stage and its appearance is still contested although the Trust responsible has already agreed that, provided sufficient funding can be found, if the case for changing any aspect of the stage can be made, then it is willing to make any alterations required. The reconstruction of the Globe should be seen as a changing rather than a completed process, at least in the view of many of those involved in its development.

Many archaeologists discuss reconstruction, and in this contribution I do not intend to elaborate on the debate about simulation vs. recreation vs. reconstruction etc. (see Stone and Planel, Introduction; many other chapters in this book; Ucko pers. comm.) in terms of attempting to see if archaeological evidence can be turned into a structure 'which will work'—even if the finished product represents only one of a range of possibilities—a form of experiment (Peter Reynolds pers. comm.; and see Reynolds, Chapter 7). In such circumstances the reconstructions do not tend to rely on documentary evidence but on plans of holes in the ground or evidence of footings. There is still considerable debate about the in situ reconstruction of archaeological remains (see, for example, Blockley, Chapter 1; Jameson and Hunt, Chapter 2; Okamura and Condon, Chapter 3). In situ reconstruction can provide a powerful and single image which it is hard for the viewer to challenge with alternatives; for example, the reconstructed Arbeia Roman fort gateway at South Shields is not the only possible reconstruction of the remains of the Roman gateway—but the fact that it stands at the entrance of what was a Roman fort, and directly on top of the original foundations, does give it additional legitimacy and power (and see Blockley, Chapter 1).

The reconstruction of the Globe is somewhat different from many recent archaeologically based reconstructions: first, all the initial work was based on documentary (visual and written) evidence, rather than excavation results. Second, archaeological evidence did come to light during the course of the design of the reconstruction which did have a significant impact and third, while the physical reconstruction of the Globe playhouse was one aim of the project, it was not an end in itself. The project was an attempt to learn about theatre and performance.

The completion of Shakespeare's Globe at Bankside, Southwark, London in 1996 (Figure 6.1), or at least the initial completion for the first performance (Wilson 1997:739), represented the first full scale reconstruction of the Globe theatre in the UK, but at least the tenth in the world (Gurr 1997:27-49). The world importance of Shakespeare's plays, as well as a fascination with the shape of what is often referred to as the 'Wooden O' (e.g. Day 1996), have meant that since Ludwig Tiek first proposed a reconstruction in the 1830s (see below), a number of 'Globes' have been built, many of which have been described and evaluated (Gurr 1997:27; Day 1996:18-20). However, they have relied on variable information, and attempt varying degrees of accuracy; in some cases they convey an impression only—as in the case of the Tokyo Globe which is entirely in modern materials—in others there is more of an attempt at 'authenticity'. Shakespeare's Globe at Bankside was completed more than 150 years after Tieck's first proposals for a reconstruction of an Elizabethan playhouse and after thirty years of painstaking work in terms of research, investigation and 'best guessing' (Gurr 1997:35) on the part of a large and changing team of experts drawn from a wide range of interests; from theatre historians through to architects, actors and builders. The motives behind the reconstruction have

been discussed and published at length; certainly there exists more published and broadcast material dealing with the motivations behind and purposes of this reconstruction than any other known to the author. What distinguishes Shakespeare's Globe on Bankside from any of the other 'reconstructed' Globes is that it is close to the site of the first Globe theatre and that it claims to be as 'authentic' as possible, given the constraints that were imposed upon its building by present-day planning, safety and semi-commercial requirements.

The claim to authenticity is open to interpretation; the case for an academic and scholarly authenticity in terms of the physical structure has recently been reinforced by the publication of *Shakespeare's Globe Rebuilt* (Mulryne and Shewring 1997) which deals in detail with the processes involved in arriving at the present structure. It is also supported by a considerable volume of published work analysing all aspects of Shakespearean theatre. As Gurr (1997:33) explains: 'The new Globe had to be as faithful a copy as scholarship and theatre historians could get it of Shakespeare's original theatre', and yet it is obvious that the nature of authenticity will not extend either to the audiences who will watch the plays or the physical landscape in which the Globe now stands. There appears to be a general view that the chance to perform Shakespeare's plays on a reconstructed stage and in a reconstructed theatre space for which they were written will provide a valuable insight into the way in which the plays were originally performed and enrich actors and the acting profession. The project is viewed as an ongoing experiment in reconstructing a theatre, and in this aspect differs from many other



Figure 6.1 The exterior of the Globe (Photo: Richard Kalina.)

reconstructions, at least in terms of its function. Most, if not all archaeological reconstructions attempt to a greater or lesser extent to reproduce a physical entity, but few are able to reassemble with any degree of accuracy what took place within them. In the case of the Globe there is no need to extemporize, at least part of the activity—what was performed on the stage—is well known. The plays exist; they were performed, and the space was taken up by actors and an audience. We can also be sure what was said on stage; the plays known to have been performed at the Globe can be identified. Actors may not know exactly *how* the lines were delivered, but they claim to be able to experiment in this area (Figure 6.2).

ORIGINS

The Globe playhouse, or more correctly the first Globe playhouse, was erected in 1599 using at least the main timbers from the Theatre in Shoreditch which was constructed as a purpose-built playhouse in 1576. This re-erection involved moving the timbers of the Theatre across the Thames to Bankside and subsequently a great deal of litigation. The reasons for this move were connected with the failure of James Burbage to establish his son's company of players, the Chamberlain's Men, at his newly constructed playhouse at Blackfriars as a result of opposition from the residents, and a dispute with the landlord of the Theatre (see, for example, Gurr with Orrell 1989:94–6).



Figure 6.2 The interior of the Globe in the first season, showing the relationship between audience and stage. (Photo: John Tramper.)

This first Globe playhouse was thus based on the re-use of a building over twenty years old, and was apparently not a preferred solution as a home for the players. The Globe playhouse was an amphitheatre, and was one of several of this type built during the period around 1575-1615 in London. It is important to note that not all Elizabethan playhouses were of this form; not only were plays performed in city inns, but also in indoor playhouses of which Burbage's Blackfriars is an example, and which was eventually occupied by the Chamberlain's (later the King's) Men in 1609 (Gurr with Orrell 1989:46-8). There is a danger of assuming that the polygonal amphitheatre-type of playhouse was the only form of playhouse in Elizabethan England when it is clear that this was far from the case. It may be that the reconstructed Globe will reinforce this misapprehension. The contract for the Fortune play-house, a key document for the reconstruction of the Globe, refers to a square open playhouse rather than a polygonal one (Mulryne and Shewring 1997:180-2), which further emphasizes the wide range of performing spaces available in late sixteenth-century/early seventeenth-century London. The first Globe was burned down on 30 June 1613, in the middle of a performance of Shakespeare's Henry VIII (Gurr with Orrell 1989:93), and subsequently rebuilt with a tiled roof, among other added features, in 1614. This second Globe was pulled down in 1644, suffering the fate of all theatres in Puritan England (Day 1996:16).

THE FIRST ATTEMPTS TO RECONSTRUCT THE GLOBE

Gurr's most recent account of the history of reconstructing the Globe (1997) points to the complex history of both research into Shakespearean theatre, and the epistemology of theatre reconstruction. Ludwig Tieck, a German Shakespeare scholar, proposed a reconstructed theatre, based on the Fortune contract, at Dresden in the 1830s; as Gurr observes, 'Like most subsequent visions of this kind, Tieck's scheme did not secure much financial backing, and never went beyond the drawing-board.' However, it established one of the main areas of continuing support for the reconstruction of an Elizabethan playhouse—the close association with William Shakespeare, recognized as 'a truly global Phenomenon' (Wanamaker 1989:9), and the world's greatest and most widely known playwright.

The main impetus for a reconstruction in the UK came as a result of the efforts of William Poel and the foundation of the 'Elizabethan Stage Society' at the end of the last century, whose rigorous approach to the performance of Shakespeare was supported by George Bernard Shaw. Poel's efforts were publicized by Shaw and led to further calls for a reconstructed Globe as the new national theatre. Nothing came of these proposals nor did anything happen to other pre-war propositions (Gurr 1997:30–2). In retrospect, the failure to reconstruct the Globe was fortunate, partly because it prevented the excesses of

uninformed reconstruction, and partly because it ensured continuing painstaking research into what was extremely scanty material.

In all, there were four attempts to proceed with a reconstruction of the Globe in London between 1900 and 1951, and all of them failed (see Gurr with Orrell 1989:30–9). The last, connected with the Festival of Britain, failed at least partly because of the work of I.A.Shapiro (1948:25–37; and see Gurr with Orrell 1989; Orrell 1997:52), who was able to demonstrate the likelihood that many of the apparently contemporary pictorial sources which had been used to provide a basis for most of these reconstruction proposals were not based on observation, or post-dated the buildings they showed.

SAM WANAMAKER AND THE GLOBE

If Shakespeare is the first and major figure behind the reconstruction of the Globe, the second most influential was Sam Wanamaker, who died in 1993, before ISGC opened. Without Wanamaker there would have been no Globe, and no 'authentic' reconstruction to discuss. It is the drive, possible irascibility, and certainly vision and character of Wanamaker which lie behind the final product.

In 1933/4 a young Sam Wanamaker saw a model of the Globe theatre at the Chicago Worlds Fair in the British Pavilion, and subsequently saw 'cut-down versions' of a number of Shakespeare's plays performed by a small theatre company which he subsequently joined. Wanamaker went on to become a successful actor and director of considerable distinction. He was also an Anglophile and a life-long admirer of Shakespeare. The story of his post-war visit to London when he visited the site of the Globe and found only a rather uninspiring bronze plaque marking the spot where Shakespeare's Globe had once stood is well known (Day 1996:24–7). He subsequently resided in Southwark and determined to rebuild Shakespeare's Globe in, or near to, its original site. The foundation of the ISGC was based on

the idea of reconstructing Shakespeare's own original playhouse ...Rebuilding it in London has been the dream of many people over the years. It became my dream when I first arrived in Southwark and found that the only record of Shakespeare's amazing twenty-five years of work in London was a bronze wall tablet. He needs, and we need, something more substantial than that.

(Wanamaker in Gurr with Orrell 1989:9)

There does seem to be some evidence that Wanamaker told the story of his commitment to the Globe in slightly different ways at different times, and certainly he changed the emphasis to suit the audiences; he was, after all, attempting to raise money and support for his dream. He also saw the Globe not only as a vehicle for the public to appreciate Shakespeare, but also as an

experiment in theatre which had uses far beyond some mechanical reproduction of what scholars thought was the most likely appearance of Shakespeare in performance c.1600 (see for example, Gurr 1997). However, Wanamaker's great contribution to what was to be thirty years of getting the Globe reconstructed, apart from his dedication and leadership, was his commitment to authenticity.

His insistence on 'authenticity' kept the design work on a strict and narrow path. Without his untiring constancy to drive it the project would certainly have run into the sands, or become a commercial theme park decades ago, instead of the educational charity that he always insisted it should be.

(Gurr 1997:35)

No one who attempts to understand the ISGC can avoid the personality, vision and drive of Wanamaker. His own belief in the need to make the theatre in general and Shakespeare's plays in particular inclusive, to make the theatre a community space, are as much a part of the reconstruction as his determination through all kinds of opposition (see for example Day 1996:169–81) to see the venture through. There is a legion of stories about him which illustrate his attitude; my favourite is about the occasion when a potential wealthy donor came to see him in full Elizabethan costume; Wanamaker is said to have taken one look at him, and suggested he return to his hotel and change, adding 'this is a serious project'! (Spottiswoode, pers. comm.).

RECONSTRUCTING SHAKESPEARE'S GLOBE

The full scale of the project of what today is known as the International Shakespeare Globe Centre is impressive in terms of both the timescale and the projected size of the final scheme (see Figures 6.1, 6.2 and 6.5) Currently, as well as the Globe reconstruction itself there is a series of supporting buildings and the shell of the Inigo Jones theatre. The Inigo Jones theatre is based on the designs by Inigo Jones of 1615 (Gurr with Orrell 1989:125-48) and is intended to allow for the presentation of Elizabethan/Jacobean plays in an indoor environment of the type which it is known existed in the late sixteenth/early seventeenth centuries. The Inigo Jones theatre plan is one of the earliest surviving architect-designed theatre plans in existence. However, unlike the Globe building there has been no attempt to use traditional building methods and materials to the same extent. The Inigo Jones theatre, when it comes into use, will provide a space which is authentic in terms of the dimensions of the Inigo Jones designs as well as a second home for the players much as the Blackfriars was to provide a second venue (and suggested winter home—although this is disputed) for the Globe players after 1609 (see Gurr with Orrell 1989).

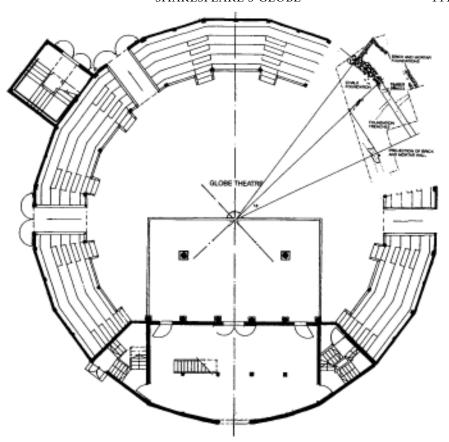


Figure 6.3 Plan of the Globe based on a twenty-sided figure, 100 ft in diameter, together with the segment of the first theatre exposed as a result of the archaeological excavation in 1989, superimposed. Pentagram Design Ltd

The Inigo Jones theatre represents the reconstruction of a space and is currently used as a temporary home for the Globe exhibition (which aims to allow visitors to 'discover what an Elizabethan audience would have been like', and 'find out about the rivalry between the Bankside theatres, the bear baiting and the stews' as well as providing a chance to 'hear about the penny stinkards and find out what a bodger is'). The exhibition will eventually be sited in the Undercroft in permanent surroundings when the next capital development phase is completed. This development will depend upon a National Lottery Grant. The Globe itself is connected to, but not surrounded by a foyer, sales area, restaurant, toilets and other administrative facilities, all of which are of modern construction but which do not impinge on the river-side view of the theatre as a reconstruction (Figures 6.1 and 6.3).

The timescale

Although Wanamaker busily canvassed his vision of a reconstructed Globe on Bankside for a number of years, it was not until 1970 that he began to take positive steps to develop the whole idea. By 1970 he had begun to realize his vision for a reconstructed Globe by setting up a Trust and forming a charity, as well as seeking a site; the problems of site acquisition stretched over a period of twelve years—yet another element in realizing the reconstruction (Day 1996). By 1989 a site had been secured, but not without a series of legal and political interludes. The final site was close to, but not on, the original Globe site as subsequent field investigation showed in 1989 (see Wilson 1996). The story of these difficulties is covered by Day (1996) and underline Wanamaker's importance in seeing the project through. By 1992 two bays of the theatre had been erected, and in 1997 the theatre opened for its first performance.

Designing and building

Initially the process of bringing together the appropriate academic and architectural expertise proved to be a struggle. Wanamaker had been able to enthuse and gather round him a number of academics for advice and ideas from early in the development stage, but the appearance of the Globe was a matter of debate, and in the final analysis academic politics and conflicting views were to be a theme of the first few years of the project as it unfolded and developed (Day 1996:24-181). There were disagreements about intentions, and aims, as well as the nature of the theatre to be rebuilt. For example, C. Walter Hodges, who later created the reconstruction drawing of the Rose theatre for *The Times*, questioned the decision to build Shakespeare's (i.e. the first) Globe, as opposed to the second (i.e. 1614) Globe on the grounds that there was much more evidence for the second Globe than there was for the first. Needless to say, Wanamaker would not accept this because he wanted to reconstruct the playhouse in which Shakespeare had a direct interest, and the theatre for which Shakespeare wrote. Hodges, an eminent theatre historian, removed himself from the project as did other collaborators over time.

By 1982 a number of models and designs existed based on the combined work of past reconstructions and new research; the Globe project was now the Globe Centre Trust, and the ISGC was set up as the commercial arm. At the same time Professor Andrew Gurr, another eminent theatre historian, had become principal academic advisor with John Orrell working closely with him. Also by the 1980s Theo Crosby had emerged as the architect of the Globe. There had been a clear recognition of the need for architectural input from the outset of the project, but until it became clear that an architect rather than an historian was needed to lead a project the size of the ISGC, there had been a series of highly unsatisfactory interim arrangements (these are described in Day 1996; particularly 76–88). Putting aside the paucity of written/pictorial material (it is worth noting that at the time—the early 1980s—there was still no archaeological

evidence), while it may have been possible for a group of actors and craftsmen/builders in the seventeenth century to build and design a theatre, the same could not be achieved in the twentieth century. Not only had building and planning regulations developed out of all recognition, but in addition the number of interested parties and professions had grown considerably. No longer could the whole process be managed by a handful of shareholders and the main contractor. In one sense at least the process of reconstruction was flawed from the outset: the possibility of using a late seventeenth-century planning environment was not available!

Theo Crosby, one of the founders of Pentagram Design, working with Gurr and Orrell, was to push the project towards completion, through numerous redesigns, compromises and pitfalls; sadly he died in 1994 before the project was completed, but by then John Greenfield, who had joined Crosby in 1987, was able to see the project through to a conclusion (Pentagram 1997; Greenfield 1997a).

As Orrell (1997) makes clear, the process of designing the Globe took place over a long period of time (Figure 6.4); Crosby started his designs by converting from imperial scale to metric, but eventually converted to traditional measurement with the production of 'a delightful *ad quadratum* setting-out diagram for the Globe, based on the three rod radius'. The project saw the analysis of all the surviving documentary evidence—a detective story in its own right—which produced, even before any archaeological evidence came to light a 24-sided, 3-storey Globe. At the same time careful re-analysis of the evidence came remarkably close to the dimensions of the Globe which were subsequently to be supported by excavation results. The subsequent decision to create a 20-sided Globe resulted from archaeological evidence, re-analysis of the documentary evidence and a dialogue with the craftsmen involved with the project (Figure 6.3).

Crosby had been determined to create a theatre which would not only 'look like the original Globe theatre, but would feel like it too' (Day 1996:135). The decision was made that not only should natural materials be used but also that traditional craftsmanship would be adopted; the road to authenticity was begun, and embraced enthusiastically by Wanamaker. This approach was the result of thirty years of dialogue—admittedly not always focused—between theatre historians, architects and eventually archaeologists. The trials and tribulations of the 'authentic' path are summarized by Greenfield's (1997a) chapter title; 'Design as Reconstruction; Reconstruction as Design'. As Greenfield points out; the original Globe was a craft building and specialist knowledge of that craft had died out by the 1830s—as a result it became necessary, subsequently, to specify in great detail all the processes involved in the reconstruction, not only therefore developing a greater understanding of craft 'design' but also of building processes. The problem of being allowed to build the structure and allowing it to function while using traditional building methods and materials had to be squared with the relevant regulations:

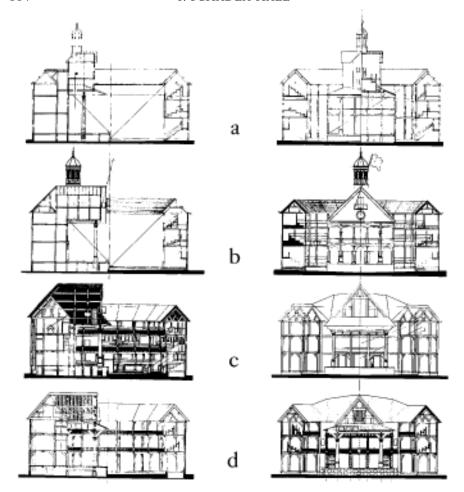


Figure 6.4 The Globe: stages of design

While the building regulations demanded a structure conforming to modern safety requirements, the design brief was for a reconstruction made in every detail as close to the original as possible, modified only as much as was necessary to make the auditorium safe so that a paying audience could be admitted.

(Greenfield 1997a)

This in turn led to a number of compromises and ingenious solutions—the oak structure proved a problem relatively easily overcome because of the self-extinguishing properties of oak; but the walls using traditional materials of oak staves, laths and lime plaster had to include special fireboard. Thatch proved more difficult, but after special treatment and a modern sprinkler system had

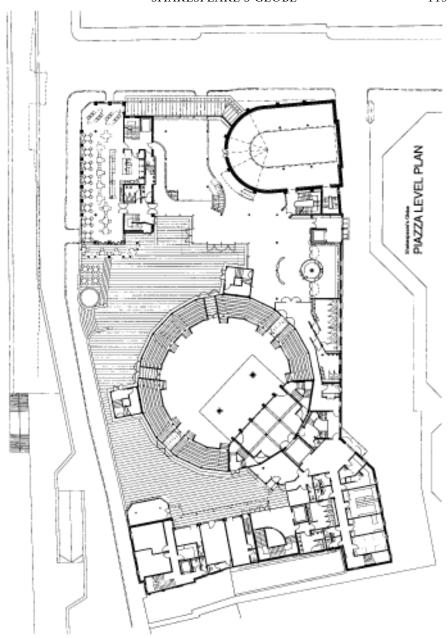


Figure 6.5 A plan of the International Shakespeare Globe Centre showing the Globe in relation to the support buildings and services and the Inigo Jones Theatre. Pentagram Design Ltd

been approved, it was possible to proceed. It took fourteen years to solve the problems of using traditional building materials (Greenfield 1997a). The rationale behind the details of the Globe reconstruction together with some of the key obstacles making the process of reconstruction more difficult are summarized by Pentagram (1997).

ALTERING THE RECONSTRUCTION: THE ROSE AND THE GLOBE

In 1989 the discovery of the Rose playhouse, paradoxically as the Globe project was really getting under way, provided a major focus for theatre historians, as well as the general public, archaeologists, and actors. The Rose was built in 1587 by Phillip Henslowe just over Southwark Bridge. The Rose was another polygonal amphitheatre, and was known to have presented plays by Marlowe, Jonson, Decker and Webster, as well as having as its most famous actor Edward Alleyn. Much was also made of the possibility that Shakespeare had possibly trodden its stage (Rose Theatre Campaign 1989). The Rose was the first Elizabethan/Jacobean playhouse to be excavated (Bowsher 1998), and as such was of considerable importance to theatre historians in general, but particularly to the team working on the Globe project. Although it was already known that there was a strong likelihood that redevelopment of the site on Rose Lane would reveal the remains of the Rose, the pressure from actors, historians, and the press to do more work on the site which was funded by Imry Merchant plc, the developer, resulted in more time being given to the excavation as the full significance of the discovery became obvious. There was an immediate groundswell of opinion calling for the Rose's remains to be preserved in situ (Eccles [1990] gives a very full and comprehensive account).

The Rose Theatre excavation demonstrated that it was possible that other amphitheatre-type Elizabethan and early seventeenth-century theatres might be recovered through archaeological excavation, including, of course, the Globe. The excavation did add significantly to the understanding of the construction and form of amphitheatre-type playhouses (Bowsher 1998:58-65). The 'Save the Rose Campaign' got off to a slow start, but it was powerful and influential once it started, and raised a number of important issues about archaeological protection in the UK. The appearance of a late Elizabethan amphitheatre-type playhouse had been revealed and immediately increased interest in the sort of building in which Shakespeare's plays had been performed. It was seen as almost hallowed ground by the acting profession, who carried considerable media interest—and vet it appeared that there was nothing which could be done to save its remains (see Eccles 1990:154-87). The discovery and excavation of the Rose, and the debate over its preservation, were the last straw in a series of events, including the failure of government agencies to preserve the remains of Roman baths at Huggin Hill, which led to a change in policy by government in relation to archaeology and preservation. By the end of 1989 *Planning Policy Guidance note* 16 (PPG16) had been issued by the government, which made it clear that development permission for a site would not be granted unless it could be demonstrated that there were no significant archaeological remains present. Hitherto, as at Huggin Hill and the Rose, there was no clear guidance as to what should happen if remains of 'national' or 'international' importance were discovered as a result of archaeological activity. In the case of the Rose, the government did not wish to pick up the financial costs of stopping any development after planning permission had been granted. PPG16 was an attempt to stop such situations arising in the future. The appearance of PPG16 has certainly changed the nature of British archaeology.

The Rose campaign also demonstrated the power of the Shakespeare factor—the 'iconic status' of the bard—which figured considerably in the Campaign to save the remains. There is no evidence to prove that Shakespeare ever performed at the Rose but claims by the campaigners that this was the case added to the pressure for some form of action. From the outset of the excavations it became clear that the remains uncovered were more substantial than had been expected (Museum of London Information 1989). The results modified, and added significantly to, the existing understanding of the nature of the Shakespearean theatre, not least in terms of the size and shape of the stage (Bowsher 1998:44). At the end of a lengthy campaign for its preservation the remains were covered over with a thin layer of concrete for exhibition at a future date. In retrospect, and at the time, it seemed strange that society and government, as represented by English Heritage, were prepared to allow the first-ever excavated Elizabethan theatre to be covered up on the grounds of cost (Eccles 1990:231–7).

A new exhibition will open on the site of the Rose in November 1998. The Rose 'lies beneath a subterranean lake, like some urban Atlantis, with water keeping its ancient beams alive until the day when they can be properly examined again and permanently displayed' (Tait 1999). The new exhibition, thanks to generous donations, will be produced at a cost of £230,000 and include a video by Sir Peter Hall. The aim of the exhibition is to raise £8 million for the Rose Trust to reopen the excavation. It is worth pointing out that in order to preserve the Rose, Imry Merchant, the original developers, had to spend over £3 million in 1989/90.

Sir Peter Hall, the internationally distinguished Shakespearean director, recently stated that 'the discovery of the Rose meant a complete re-evaluation for the acting profession' (Tait 1999), and this point adds the justification for reconstructing the space of an amphitheatre-type playhouse from the point of view of discovering more about Shakespearean acting. In the aftermath of the discovery of the Rose and its comparatively well-preserved remains, Hanson plc, the owners of the site of the Globe, commissioned excavations in October 1989 which resulted in both the firm location of the Globe, and also provided some insight into the nature of the Globe construction itself (Blatherwick 1997;

Blatherwick and Gurr 1992). The segment of the Globe excavated by the Museum of London Archaeology Service was superimposed on the reconstructed Globe plan (see Figure 6.3), to examine the fit of the proposed reconstruction. Blatherwick (1992) and Gurr and Orrell (1997) suggested that the Globe excavation results left a number of unanswered questions, not least being the confusion over the first (Shakespeare's) and second (1614) Globe remains, and the question of the nature and existence of stair turrets on the outside of the playhouse. In addition, the small segment of the Globe excavated, combined with the known asymmetrical nature of the Rose (Bowsher 1998) was too limited to predict with certainty the number of sides the Globe should be given in reconstruction—although 20 sides was agreed on (Figure 6.3). Finally, the excavations did not cover the area of the stage and the tiring housewhich still remain key areas for ensuring the 'correctness' of the present reconstruction. As Blatherwick and Gurr (1992:333) concluded: 'No building from Britain's past has been more studied and guessed about, and less understood. The 1989 dig seemed to open a new door. But we have not got far inside yet.'

The appearance of both the Rose remains and subsequently those of the Globe did create some difficulties for the Globe project, first, because the discovery of the Rose as 'the real thing' paradoxically deflected interest away from the Globe project, and second, because the information came to light (1989) relatively late in the project design stages, and did not clarify matters as was originally hoped.

The debate about the future fate of the remains of the Rose and the so far only partly excavated Globe proceeds apace: the campaign to uncover the original Globe regularly finds media space. Mark Rylance, the artistic director of the ISGC, recently stated:

To us [the buried Globe] is a unique source of information. For us it is like oil or gold down there. I find it a little strange that last year we were given £12.4 million from the Lottery to complete the replica as accurately as possible and then they deny us the one opportunity there is to discover what the original was like.

(Reynolds 1997)

Zoe Wanamaker (Sam Wanamaker's daughter) pressed for the excavation as well. Any further excavation is likely to raise questions about the reconstructed Globe—but the real question is, will it be possible, if new information does come to light, to change what has now been built?

The completion of the two theatre excavations did add, for the first time, an archaeological dimension to the process of reconstruction, and added physical evidence (not always helpfully) to the debate about the nature of the theatres' appearance. Wilson, who has been a consistent critic of the Globe reconstruction, recently wrote that:

both the Rose and the Globe excavations expose the problems faced by an increasingly fragmented scholarly community...the excavations, which should have been a joint exercise—the archaeologists profiting from the substantial researches of the historians of the theatre, and the theatre historians themselves learning from the archaeologists—suffered from both sides' ignorance of the other's discipline.

(Wilson 1996:166)

While it may be that there was a lack of communication, the subsequent publications (e.g. Blatherwick and Gurr 1992 or Hodges 1998) make it clear that a learning and communication process *is* taking place, and that archaeologists are working with theatre historians and *vice versa*.

THE AFTERMATH AND COMPLETION

The initial main impact of archaeological evidence on the Globe reconstruction was in the area of the shape of the buildings; the Rose was a 14-sided asymmetrical polygonal structure, the Globe a 20-sided structure (at least as far as could be deduced). The depth of the galleries was confirmed, as was the likely construction methods used. It was now possible to use archaeological evidence to inform reconstruction. Throughout the Globe reconstruction Orrell had used the Fortune Theatre contract to aid the calculation of the proportions of the building, and in turn this work possibly suggests that the Fortune with its square shape was to hold as many people in the galleries as the Globe had, but considerably less groundlings; thus the process of reconstructing the Globe gave insight into the elements of seventeenth-century theatre design and construction (Gurr with Orrell 1989:93–123; Orrell 1997:51–65). The archaeological evidence was not conclusive in relation to the Globe:

archaeologists don't like speculating about the whole ground plan of the Globe when all they have is the small patch of foundations they have managed to reveal. Those of us charged with the job of suggesting how the theatre was built can't afford the luxury of such scientific restraint.

(Orrell 1997:64)

It is therefore inevitable that there is still a 'best guess' element involved in the final work.

The designs were debated in seminars in 1983, 1986 and 1992; it was at the last of these that the archaeological evidence could be fully assimilated with the changing reconstruction proposals and when the 20-sided Globe finally emerged. Problems of accommodating the 'tiring house' and the stage had

emerged and an experimental mock-up stage was produced in 1995 so that actors, as opposed to scholars, could comment on the designs. At this stage, therefore, those who were to use the theatre were able to comment; they were not, apparently, happy. In fact ten options for stage roofing were looked at, and the position of columns on the stage is still being debated (Tait pers. comm.). Greenfield (1997a: 96) commented that the 'success or otherwise of [the present] solution, and the persuasiveness of the design as a whole will be tested by actors, audiences and scholars as the years go by'. There have already been a number of comments by actors and producers about the appearance of the stage, and the location of the columns. The informed guesswork of historians and architects, combined with the archaeological evidence from the Rose excavations—where traces of two stages were recovered—have failed to satisfy the actors and users of the likely veracity of the current stage (Tait pers. comm.).

To complete the timber framework of the Globe, Pete McCurdy, the master carpenter, with the architect, after prolonged research in building methods (see Greenfield 1997b), constructed two bays of the theatre on site. This design process took nearly ten years to complete, and was accompanied by detailed research, and was again re-evaluated during construction. In 1993 the bays were moved to their final location and the remaining frames constructed by 1995. The process of setting out the theatre in plan was a complex process which relied on the *ad quadratum* principle of design. No one has yet been able to conclusively prove how Tudor and later theatres were designed, and no doubt discussion will continue; the reconstruction of the Globe used this approach, and has helped to stimulate debate and research into Tudor design principles (Blatherwick and Gurr 1992; Greenfield 1997a). Clear evidence about the superstructure of the Globe is also lacking and was based both on conjecture and an understanding of Tudor carpenters' methods (ibid.).

One of the most contentious areas of reconstruction is the finish of the Globe both from the point of interior decorative design (see Ronayne 1997) and exterior finish, which still awaits final resolution. The exterior is still undecorated (Figure 6.1); while it was undoubtedly not plain but decorated, the decision on its final appearance still awaits better information. The interior appearance is still debated. Many of the issues have been raised by Wilson (1996, 1997) who feels that what she continues to call 'Sam Wanamaker's "Globe" is 'based on just as much guess-work as any other attempt at reconstruction' (Wilson 1996:182). This is palpably untrue. The same author argues that 'almost none of the findings of the Rose excavation has modified the design' (ibid.: 168) which also seems unfair. Wilson concluded in 1996 that 'to visit the "Globe" will be fascinating, but it will not be authentic' (ibid.: 182). Just how far it will be possible to produce an 'authentic' reconstruction seems unanswerable; none of those involved seem to claim 'authenticity' but they do claim to have worked towards authenticity and have documented the stages through which they have worked (Mulryne and Shewring 1997).

CONCLUSIONS

The reconstruction of the Globe is probably the most detailed attempt (at least in terms of published documentation) so far in the field of recreating past structures. The main reason for reconstructing the Globe was not to recreate in exact detail a perfect reconstruction of the Elizabethan theatre. It is clear that the existing sources are not going to provide anything like enough information to allow anything more than a best guess. It is unlikely, even with further information and excavation, that much more is to be learnt in detail although fuller excavation of the Globe site might solve the stage and 'tiring house' questions. The examination of the scant documentary sources over the last fifty years has eliminated rather than added to the available material (see for example Gurr 1997). It is, however, an attempt to create a 'best fit' for the theatre in which many of Shakespeare's plays were performed, and for which some of Shakespeare's plays were written. It is about 'the central requirement...for this building to become a perfect *instrument* for acting' (Greenfield, 1997a: 82).

The International Globe Play House Centre should be, and in many cases already has been, evaluated and judged against a range of criteria and a long list of aspirations. These should include its use as:

- 1 a centre for carrying out research into the nature and form of Shakespearean drama;
- 2 a theatre space (with potential for any form of acting);
- 3 an educational study centre for understanding the plays of Shakespeare and his contemporaries;
- 4 a physical recreation of the spaces in which plays were performed and watched from;
- 5 a reconstruction of what the Globe might have looked like in 1600;
- 6 a working monument to the work of William Shakespeare and the period;
- 7 a continuing educational charity which will be able to maintain its existing objectives.

This list may not encapsulate all of the aims behind the Globe, but it does provide clear areas for evaluation.

In relation to the first two aims, it is important to bear in mind that the Globe cannot be viewed in isolation. The reconstructed Globe is a part of a much larger complex, physically and conceptually, which aims to perform and examine the performance of Elizabethan and early Stuart plays in order to illuminate the plays themselves. It will also serve as a conventional theatre space for plays from all periods; in a sense it is therefore a continuing experiment presenting change, rather than a static tableau producing no change at all, preserved in aspic. There appears to be a strong desire to ensure that the 'theme park' element so feared by Wanamaker himself is resisted; at one modern-dress performance of *Two Gentlemen of Verona*, apparently, members of the audience who arrived in Elizabethan costume were turned away! Discussions on the validity and

usefulness of the Globe in terms of advancing an understanding of Shakespeare's plays and other plays of the period will no doubt continue and there is no doubt that there will be debate (see Wilson 1997:738). It is clear that, given the limited amount of information on the way in which Shakespeare's plays were performed, we shall be left with a series of best guesses.

Education, the third area for judging the reconstruction, has, in terms of the facilities offered, been an outstanding success, both in terms of the displays in the Inigo Jones theatre and also the accompanying workshops and plays. The fact that in the last year (1997) the visitor numbers have exceeded 1,400 per day, which is as many as the site can comfortably hold, also underlines the success of the project as an income generator. There is no doubt that the Globe can only survive if it can attract visitors, and it does. Wilson's (1997:743) suggestion that the commercial success and the need to make a 'contribution to the economic revival of the South Bank of the Thames' leads 'inevitably, to some "Disneyfication", a blurring of the line between the known and the conjectured' seems unfair and unnecessarily elitist. Her final words seem much fairer (Wilson 1997:744), for in the finalanalysisit will be the consumers who will judge the Globe as reconstructed.

If one goes to the Globe and comes away feeling 'this is what it might have been like,' then Wanamaker has done good; if one is led to believe 'this is what it *was* like', then its effects will have been wholly pernicious.

The experiments and discussions on the exact position and nature of the stage and its columns continue, as does commentary from the actors, and as long as the Trust is prepared to consider changes—to make this reconstruction a living and changing event—a 'constant conversation'—with actors, architects, archaeologists and theatre historians, it may well achieve what few other reconstructions do, and in a much more complex environment: the ability to offer constant reevaluation and reconstruction while contributing to a whole range of understandings of the past.

ACKNOWLEDGEMENTS

I should like to thank Patrick Spottiswoode and Simon Tait for their help in discussion and Jo Dullaghan for her work on the various drafts. All mistakes are mine.

NOTES

- 1 Gurr (1997:33).
- 2 Wilson (1997:742).

REFERENCES

- Blatherwick, S. 1997. The archaeological evaluation of the Globe Playhouse. In *Shakespeare's Globe Rebuilt*. J.R.Mulryne and M.R.Shewring (eds), 67–80. Cambridge: Cambridge University Press.
- Blatherwick, S. and A.Gurr 1992. Shakespeare's factory: archaeological evaluations on the site of the Globe Theatre at 1/15 Anchor Terrace, Southwark Bridge Road, Southwark. *Antiquity* 66: 315–33.
- Bowsher, J. 1998. *The Rose Theatre: an archaeological discovery.* London: Museum of London.
- Day, B. 1996. This Wooden 'O'—Shakespeare's Globe reborn. London: Oberon Books. Eccles, C. 1990. The Rose Theatre. London: Nick Hern Books.
- Greenfield, J. 1997a. Design as reconstruction: reconstruction as design. In *Shakespeare's Globe Rebuilt*. J.R.Mulryne and M.R.Shewring (eds), 81–96. Cambridge: Cambridge University Press.
- Greenfield, J. 1997b. Timber framing, the two bays and after. In *Shakespeare's Globe Rebuilt*. J.R.Mulryne and M.R.Shewring (eds), 97–119. Cambridge: Cambridge University Press.
- Gurr, A. 1997. Shakespeare's Globe. A history of reconstructions and some reasons for trying. In *Shakespeare's Globe Rebuilt*, J.R.Mulryne and M.R.Shewring (eds), 27–47. Cambridge: Cambridge University Press.
- Gurr, A. with J.Orrell 1989. Rebuilding Shakespeare's Globe. London: Weidenfeld and Nicolson.
- Hodges, C.W. 1998. Postscript. In *The Rose Theatre: an archaeological discovery*. J.Bowsher, 70–83. London: Museum of London.
- Mulryne, J.R. and M.R.Shewring, (eds). 1997. *Shakespeare's Globe Rebuilt*, Cambridge: Cambridge University Press.
- Museum of London Information, 1989. Rose Theatre. London: Museum of London (Department of Greater London Archaeology).
- Orrell, J. 1997. Designing the Globe. In *Shakespeare's Globe Rebuilt*. J.R.Mulryne and M.R.Shewring (eds), 51–65. Cambridge: Cambridge University Press.
- Pentagram, 1997. Rebuilding Shakespeare's Globe. London: Pentagram Design Ltd.
- Reynolds, N. 1997. Secrets of Shakespeare's stage to be lost beneath the builder's bulldozer. *The Daily Telegraph*, 13 March.
- Ronayne, J. 1997. Totus Mundus Agit Historionem: the interior decoration scheme of the Bankside Globe. In *Shakespeare's Globe Rebuilt*. J.R. Mulryne and M.R. Shewring (eds), 121–46. Cambridge: Cambridge University Press.
- Rose Theatre Campaign, 1989. Save Shakespeare's Rose. London: Rose Theatre Campaign.
- Shapiro, I.A. 1948. The Bankside Theatres: early engravings. *Shakespeare Survey I* 25–37.
- Tait, S. 1999. The bard trod these boards. *The Times*, 28 January.
- Turner, D. 1998. The reconstructed Globe, Surrey Archaeol Soc Bull 316:2-3.
- Ucko, P.J. Forthcoming.
- Wanamaker. S. 1989. Foreword. In *Rebuilding Shakespeare's Globe*. A.Gurr A with J.Orrell. London: Weidenfeld and Nicolson.
- Wilson, J., 1996. The Archaeology of Shakespeare. Stroud: Sutton Publishing.
- Wilson, J. 1997. The Great Globe Itself: Sam Wanamaker's 'Shakespeare's Globe'. Antiquity 71:738-44.

7 Butser Ancient Farm, Hampshire, UK PETER REYNOLDS

DEVELOPMENT HISTORY

Butser Ancient Farm (Reynolds 1979) was set up in 1972 as a centre for research and education. Its original remit to study the agricultural and domestic economy of the period c.400 BC to AD 400 (i.e. the late Iron Age and early Roman periods in the UK) has remained largely unaltered. The Farm's overall objective was, and is, to create research programmes based upon the archaeological evidence from excavations.

Over the last twenty years the Ancient Farm has occupied three locations. The first, at Little Butser—from which the farm draws its name, was a northerly spur of Butser Hill in Hampshire, southern England. The base geology of the site was middle chalk overlaid with a shallow friable rendzina soil just 100 mm deep. Given its geology and aspect it offered a 'worst option' scenario for the proposed research programme although it had once supported a Bronze Age/ Iron Age farmstead, whose occupants had cultivated the valley to the north and east. The principal advantage of a 'worst option' is that the results of the experiments, especially those which depend upon a combination of soil and climate, have not been enhanced by pre-selecting optimum conditions. This site was in continuous operation from 1972 to 1989.

In 1976 a second site was developed in the valley bottom on Hillhampton Down on the southern slopes of Butser Hill. This shared the same geology but with a deeper (300 mm) soil cover of friable rendzina, clay with flints and chalk granules. It was operated as a research site in conjunction with Little Butser but its primary purpose was as an open air museum open to the public and available as an educational resource for schoolchildren. Given the independence of the Ancient Farm from any statutory funding, either national or local, the public aspects of this second site were necessary to develop a sustaining source of income.

On both these sites the infrastructure comprised research fields and stock areas, animal paddocks, and an enclosure within which were built 'constructs' based upon specific archaeological data. Livestock kept at the farm included five breeds of sheep, Old English Goats, Dexter cattle and Old English Game

Fowl. Occasionally Tamworth/European Wild Boar cross pigs were also kept. The differing natures of both sites allowed direct comparisons to be drawn between the different bio-climatic zones.

The major advantage of the second site was a redefinition of the binary purpose of the Ancient Farm as being a research *and* an educational establishment. This second site was called the Butser Ancient Farm Demonstration Area (BAFDA) and by most was regarded as a separate entity from the first site on Little Butser. It was at this second site that the methodology developed and the results obtained were to be shown to a visiting, paying, public and a full educational service offered to schools. Thus the first site could be relieved of visitor pressure except by academic groups, a pressure that had gradually increased once buildings had appeared there. It was interesting to observe that between 1973 and 1975, on Sundays in August, when Open Days were organized for the public, over a thousand people regularly trekked to the hill to the site to see the research at first hand.

Inevitably, given the fact that the site of Little Butser was given over to the Ancient Farm at a minimal rent by Hampshire County Council, there was a hidden agenda. Subsequently the County Council, in association with the Forestry Commission, created one of the first Country Parks in England. A visitor centre with interpretation facilities, cafe and car park was built in 1975 and scheduled to be opened in 1976. BAFDA was located just 300 metres away from the visitor centre. In effect, given the uniqueness of the Ancient Farm, it was intended as a major attraction within the Country Park itself. Considerable pressure was exerted by Council Officers to reach 'a state of completion' of BAFDA by June 1976 when both the Country Park and BAFDA were to be visited by the Queen. In a sense it was the urgency to achieve 'a state of completion' which marked the fundamental difference in perception between the scientific organizing committee, on the one hand, and the County Council staff, on the other, concerning what the Ancient Farm was actually intended to achieve. It was quite beyond the latter that an open air laboratory where experiments were in process, which examined not only creation but also degradation through time, could, by definition, never achieve 'a state of completion'! Even the natural changing of colour of a thatched roof from a golden yellow to weathered brown caused a heated discussion with suggestions of neglect.

My intention had been to create a second, parallel, open air laboratory in a different bio-climatic zone where research was the primary aim and the research data would, in effect, be doubled. The real challenge lay in the design of this second site to allow for visitor flow with distinct 'interest focuses'. In its mature state five such distinct focuses were created: two experimental areas, one for clay, the other for metallurgy experiments; an experimental Roman structure—ostensibly a grain drier—which ultimately proved to be a remarkably efficient malting floor (see below, p. 134); a central enclosure; and a terraced herb garden where herbs from prehistory and the Roman period were grown. The central

enclosure was the obvious main focus, surrounded by an experimental ditch and bank and containing a great roundhouse with ancillary buildings.

Another challenge was to persuade people that they were actually visiting an open-air laboratory and not a reconstructed Iron Age Village. The ribald and regular remark that 'they didn't have one of those in the Iron Age' provides a wonderful opportunity to explain exactly what was going on. Visitors have found it stimulating when they have realized the contribution their own positive observations could make. The elegant paradox of a laptop computer within the construct of a large prehistoric roundhouse, a modern weather station nestling within the plots of emmer wheat, a video-camera recording the firing of a Romano-British kiln, all serve to jerk the visitor into an appreciation of the real purpose of the Ancient Farm.

However, it was this real purpose which deepened the rift between the Ancient Farm and County Council staff. The latter seem to have perceived the site as a Celtic 'Disneyland' able to generate considerable revenue. On a number of occasions local management wished to know who might be interested in 'all this scientific stuff'. The only acceptable strategies seemed to be those geared to increasing visitor numbers and inevitably relationships worsened through time, not least because I insisted on maintaining the original remit and aim of the Ancient Farm.

In 1990 the Ancient Farm was requested to leave the land areas it had occupied since 1972 and 1976. Subsequently the land occupied by BAFDA has been turned into a successful picnic and barbecue area. In retrospect, it was lucky that both



Figure 7.1 Butser Ancient Farm in 1995

sites had been in operation for sufficient time for long-term patterns to yield valid statistical information. Perhaps, too, it was time to relocate to a third bioclimatic zone. As a learning experience the knowledge gained includes a clear recommendation that any intention to run a long-term experimental site on publicly owned land should be subject to legally binding conditions.

At the beginning of 1991 a new site was developed a few miles away at Bascomb Copse near Chalton (Figure 7.1). The underlying geology is upper chalk with a loamy soil averaging 350 mm deep. This new location offers the typical option of the chalk downlands of southern Britain as exploited in all periods of the past. This site provides the same resources as the previous sites but with the added bonus of potential further development. Indeed, research activity now extends into the Roman period with the building of a construct (see below) of a Roman villa including a major research programme based on a working hypocaust. The site continues to combine the twin focus of research and education in one location. As with the previous sites the objective is to carry out 1:1 scale empirical trials to elucidate archaeological data.

METHODOLOGY

From the inception of the Ancient Farm in 1972 it was realized that in order to attempt full-scale empiricism, an appropriate methodology was critical. This methodology had to embrace all aspects of the work, producing compatible results which could, ultimately, be integrated. Even in the early 1970s it was envisaged that, given a large enough data base, rigorously acquired over a long enough period, computer simulation could be employed to extend the use of the data beyond the research design as originally conceived and respond to questions not formulated at the beginning of the programme.

The methodology developed is essentially cyclical. The archaeological data, along with whatever documentary sources are available and reliable, form the primary data on which we base an hypothesis. This is then tested in the form of a physical experiment which, by definition, requires the potential for—and actual—replication. The conduct of such experiments must be consistent from start to finish. An experiment which is changed or modified during its course immediately invalidates itself. Given adequate replication, usually a minimum of five 'replicates', the data from the experiment are compared to the original data upon which the hypothesis was raised. If there is agreement between the sets of data, the hypothesis can be tentatively accepted as valid but with the caveat that several different hypotheses raised on the same data might also be validated. If there is no agreement, the hypothesis is not merely invalidated but actually proved to be wrong. The value of this methodology lies especially in the seemingly worst case situation. By building an experiment, the primary data

are subjected to extremely close scrutiny in order to execute the experiment, a process which emphasizes aspects previously unconsidered or even unrecognized.

NATURE OF EXPERIMENT

Experiments vary in nature in direct response to the type of hypothesis. Our experiments fall into five categories. The first is that of *structure*, the creation of *constructs* based upon patterns of post-holes and stakeholes. The word *reconstruction* is to be eschewed since for prehistoric buildings where virtually nothing material survives it is totally inaccurate. The vast majority of buildings from prehistory and protohistory survive only in the form of negative evidence, the position where posts and stakes once stood. Consequently, the term *construct* has been chosen to underline the nature of the process and avoid semantic confusion. Reconstruction properly refers to putting together and restoring buildings of which adequate remains survive.

The second category of experiment involves *process and function*. Trials are mounted to examine the effects of use on archaeological features—pits or objects such as ploughs—or, alternatively, the effect on tools of their presumed use. This category embraces technological resources such as pottery kilns and furnaces where, for example, experiment can determine the limits of their performance as well as their efficiency.

The third category concerns *simulations*. In this kind of experiment one seeks to discover how an archaeological feature reached its state as recovered by excavation. Perhaps the best example is the experimental earthwork or ditch and bank. Countless excavations have exposed buried ditches which reveal deposition layers within them caused by natural erosion processes. The layers are normally irregular and asymmetrically deposited. In order to gain an understanding of both the irregularity and asymmetry, the only course of action likely to yield a valuable result is to construct a 'new' version which can be studied against climate and time. The Ancient Farm is currently conducting a research programme of simulation trials involving octagonal earthworks on different rock and soil types.

The fourth category of experiment, described as *probability trials*, is a logical extension of the first three categories. In such a trial one seeks to establish, within closely defined parameters, probable outcomes or results. Inevitably such results have to be viewed as probability statements, very much defined by the constants built into the experimental procedure. The best example of a probability trial is the growing of prehistoric-type cereals to establish potential yields, taking into account the technology available at the time. Within such trials the variables of weather and soil type can be regarded as semi-constants provided they are recorded in detail. More significant, in terms of probability, are the presumed constants of treatments, sowing rates and management. Deductive hypotheses and their testing also fall within this category of experiment. The use of this

type of trial relies upon validated hypotheses preceded by a prior, and unsubstantiated, process or activity. For example, in Britain there is no evidence of threshing or threshing locations yet cereals had to be threshed before they could be processed into food or prepared for storage.

The fifth category is *technological innovation*. This includes the use of machines or instruments which seek to improve or enhance archaeological practice. Good examples are prospection machines like fluxgate gradiometers and soil magnetic susceptibility metres, ground radar and even X-rays, borrowed from other disciplines. These devices are tested to assess their potential. Similarly, monitored field trials can be used to facilitate the understanding of archaeological data. For example, a series of trials have been conducted to determine artefact movement within the modern and the prehistoric plough zone to assess the value of the soil as an archaeological layer, deserving the same detailed analysis as layers believed to be undisturbed by subsequent activity.

These five categories are not mutually exclusive. Often an individual experiment can embrace several categories simultaneously and a probability trial is entirely dependent upon the three previous types of experiment. In reality, separating the experimental process into these categories is for convenience of explanation rather than any purpose of definition.

All the above categories of experiment have been pioneered and extensively practised at the Ancient Farm. The one important factor which has been deliberately excluded from the nature of experiment is the human. As far as possible, the experiments are scientific trials with variables being measured against constants with emphasis placed on replication and predictability of subsequent trials. Data are expressed numerically whenever possible. No importance has been attached to 'time taken to achieve' since the variables of human motivation and skill are impossible to evaluate or calculate. Similarly, 'living in the past' forms no part of the scientific work of the Ancient Farm. Such activities are singularly instructive to the participants and may or may not be character-forming. There is undoubted value and profit to gain from some forms of re-enactment in the field of education and interpretation. However, the objective from the beginning of the Ancient Farm has been to work within the constraints of the above methodology concentrating upon the problematic archaeological or prime data. Each of the three sites has been managed in such a way as to seek to integrate all the different experiments so that not only can the individual experiments be studies *per se* but also suspected relationships between the experiments can be evaluated and unforeseen relationships identified. Results of all types of experiments are published in a series of Year Books, published privately by the Ancient Farm and available to anyone wishing to develop their own research or to compare results.

CORE RESEARCH PROGRAMMES

Cereals

The primary focus of the research has been upon the agricultural economy of the later Iron Age. From 1972 growing trials have been carried out with the typical cereals of the period, Emmer (*Triticum dicoccum*) and Spelt (*T.spelta*) on a range of soil types in different bio-climatic zones. Other cereals have been incorporated into the trials including Club Wheat (*T.aestivo-compactum*), Old Bread Wheat (*T.aestivum*), Einkorn (*T.monococcum*), and Barley (*Hordeum vulgare*). For treatment variabilities the legumes Celtic bean (*Vicia faba*), Peas (*Pisum*), and Vetch (*V. sativa*) have also been cultivated. Field aspect, soil type, manuring and non-manuring, crop rotation and fallow rotation are all incorporated as variable treatments. An important element of these cropping trials has been the study of arable weeds, in terms of their presence and absence and their value as irritants or benefits.

Cultivation experiments using different types of cattle-drawn ard have been conducted, examining both the efficiency of the ard as a tool and wear patterns on the ard itself. Associated observations within the cultivation programme include the monitoring of lynchet formation on field boundaries. Trials with a magnetic susceptibility metre across manured and non-manured zones within field areas and lipid analysis of treated soils suggest a positive method of determining manuring activity. Cropping trials have also afforded opportunities to carry out pollen rain catchment along with the development of a new pollen rain trap.

Grain storage

The second aspect to the cropping programme has been a programme of grain storage in underground silos. A range of variables have been examined over a period of twenty years, yielding significant results. Grain can be stored very successfully in simple pits in chalk, limestone and sand both in the short and long term. After short-term storage of about six months the grain has a germination rate in excess of 90 per cent. Germination rate, though not necessarily edibility, deteriorates the longer the storage period. Critically, a pit has an indeterminate life span. No sign of souring was observed during fifteen years of trials. The implications of these storage experiments suggest a re-evaluation of the currently accepted economy and use of grain storage pits is required.

Constructs

A parallel research focus has been upon the houses and structures of the late Iron Age. A number of different round houses have been built on each of the three sites, each house being a specific construct based upon the best available excavated data. Two significant constructs have yielded the greatest reward to date. The Pimperne house construct allowed a real distinction to be drawn between constructional and structural evidence and, on its dismantlement in

1990, it was found that a building of 13 m (42 ft) diameter could survive beyond the life of its structural post-holes, implying that dates arrived at from evidence found within the post pipe did not necessarily coincide with those of its destruction. An even larger construct based upon an excavation at Longbridge Deverel Cowdown, Wiltshire, 15.4 m (50 ft) in diameter, built in 1992–93, has demonstrated that a free span of some 13 m is relatively simple to achieve.

Earthworks

Since the early 1980s a research programme into experimental earthworks has been carried out involving the construction of simple V section ditches 20 m long, 1.50 m deep and 1.50 m across with dump banks and built in variables of berms and no berms, turf-retaining walls and turf cores based. The research entails the study of erosion and revegetation through time against recorded climate. The programme at present has four major earthworks on upper, middle and lower chalk and aeolian drift. The proto-experimental earthwork built at the Hillhampton Down site in 1976 and subsequent excavation in 1981 revealed startling rapidity of vegetable colonization and stabilization as well as a totally unexpected skew of the deposition layers.

In addition to these research programmes, subsidiary programmes have investigated metallurgy and kiln technology. Further programmes are run in conjunction with other institutions both from the UK and overseas.

EDUCATION

Given the nature of the Ancient Farm as an open air laboratory with the research programme providing physical results in the form of domestic buildings and working structures, earthworks and fences creating enclosures and trackways, plantstock and livestock contributing vitality and seasonal change and demanding functional and processual attention, the end product presents not only an integrated research milieu but also a marvellous teaching tool. Seasonal change, creation, deterioration and renewal were foreseen at the inception of the programme to be of critically important research and educational value. Because experimentation uses as its primary data the archaeological evidence and thereafter involves the individual sciences required by each experiment, the range of disciplines involved is extremely wide. For example, a building construct involves architectural and engineering skills while the storage of foodstuffs involves a working knowledge of mycology. To this scientific basis can be added the arts of communication through word and image. Thus the integrated research programmes of the Ancient Farm encompass many aspects (literacy, numeracy and communication) of educational curricula. This, with variations in presentation, applies to all age levels, from primary pupil to postgraduate researcher.

Schools

Recently education in the UK has become more regularized with the introduction of a National Curriculum which prescribes knowledge and skill attaintment targets by age stages. Commonly such targets cannot be achieved solely within the classroom and educational philosophy and practice requires more contact with the world beyond the confines of school buildings. The cross-curricular nature of the Ancient Farm encourages an appreciation of the complexity of the real world. It is possible to range from the simplest of activities such as spinning and weaving (Figure 7.2) to the complexities of the climatic impact on plant growth; from the basic technique of applying daub to a wickerwork wall to the mathematical determination of the forces exerted by a cone upon a cylinder.

A typical school programme begins with preparatory work. The teacher is always invited to come to the Farm prior to the actual school visit in order to



Figure 7.2 Instruction in spinning and weaving

see the resources on offer. Alternatively, a visit is offered by a member of our staff to the school. There is full discussion of what the teacher wants to achieve through the visit and how the schoolchildren's learning experience will fit the requirements of the National Curriculum. Given the multi-disciplinary nature of the Ancient Farm it is possible to cover a wide range of National Curriculum requirements from history (the Romans) through subjects including geography, design and technology, science, environmental studies, mathematics, drama and art.

During the visit the children are given an introduction to our work inside the great roundhouse. Emphasis is always placed upon 'how do we find out' and 'what the evidence is'. After the introduction each child participates in two or three hands-on activities such as building a fence, daubing a wall, making a pot from raw clay, spinning with a drop spindle, weaving on an upright loom and grinding wheat into flour with a rotary quern. For the Roman period, activities extend to making tiles, handling mosaics, using Roman equipment such as the groma and the aqua libra, measuring using the Roman dimensions of the uncia (inch) and the pes (foot). Often a visit is concluded by a short 'story-telling' session around the hearth in the great roundhouse. Occasionally, if requested, a special demonstration of a 'dangerous technology' is made for the schoolchildren. The most spectacular of these is the pouring of molten bronze into an open mould. For a child to see this is an experience which has enormous implications, from the simply dramatic to the scientific appreciation of the nature of materials. Teachers are always encouraged to continue with follow-up work and we offer followup services from the Ancient Farm, including visits by Farm staff to schools to give specific talks.

Schools are charged a small fee per child, the proceeds from which are used to employ an Education Officer whose job is to control, administer and enhance the service. The education service provides information sheets on specific aspects of the programme. Teachers can either use these as a source of information for themselves or photocopy them for each child. Similarly, there are educational zones around the Ancient Farm itself which are dedicated to specific activities. The decision to spread rather than concentrate these zones is quite deliberate so that children are moved about the Farm and not hidden away. In the holidays the facilities are extremely popular with younger visitors.

Universities

The Ancient Farm has been conducting research programmes for students and postgraduates since 1972. A data base is available for study and is open to previously unasked questions arising from modern excavation techniques. In addition, the Farm is available as an open air laboratory where new experiments, both short and long term, can be carried out in a scientifically controlled environment. It has always been a fundamental philosophy that the research of the Ancient Farm should be open to inspection and prime data be available for

reworking. This is particularly relevant given the new applications of computer technology.

THE PUBLIC

From the beginning there has been surprisingly little conflict between the constraints of scientific research and the utilization of that research as an educational resource. Nor has there been any major difficulty in allowing public access to the Ancient Farm. Indeed, the latter, together with the educational visits, has been an important source of finance.

The initial proposition that the Ancient Farm would be an open air research laboratory has been maintained from its inception to the present day. The visiting public witness research programmes in progress. The paradox of modern technology in the form of computers and scientific measuring instruments in association with ostensible prehistoric material serves only to enhance the laboratory aspect and underlines the fact that research is an important method of finding out about the remote past, and that the latest technology plays a significant role. The setting of the Ancient Farm is occasionally used for special events. The ancient festival of Beltain to welcome the spring is one such event; a huge wicker man stuffed with straw is 'ritually' fired before an audience, but always with appropriate explanation to defuse any ideas about neo-paganism or Druidic cults. Similarly, the great roundhouse is occasionally used as a theatre—concerts of Celtic music and poetry are particularly successful. The sound of the Celtic harp within the house is especially haunting and emotive.

The general public are usually very happy to accept the underlying remit and aim of the Ancient Farm—although there have always been some exceptions who expect to find total re-enactment and are initially disappointed in not finding a tribe of hairy Celts in evidence, but the majority of these can be 'converted' with a little explanation. Further, since the research concerns a complex prehistoric society at work, using the full range of skills from farming to house building and from metallurgy to cooking, the modern visiting public are quite capable of providing further insights from their own knowledge, skill and experience. A visiting brewer, in the late 1970s, challenged the interpretation of a structure as a Romano-British corn drying oven, suggesting that it was far better as a malting floor. Further research proved his hypothesis to be far more probable! Thus it is a mark of respect for the public at large that the research element is stressed; the explanation that hypotheses are being explored to assess validity is not obfuscated by spurious re-enactment. Such emotional journeying into the past is an illusion sustained by a suspension of judgement and alloyed by prejudice.

In conclusion, the Ancient Farm is not driven by specific educational requirements. It has its own research agenda specifically designed to explore the primary archaeological data by direct experiment. However, this agenda is infinitely

exploitable as a teaching resource. The active research base means that the Farm is always in a state of change. It is definitely not a museum nor is it a school. Rather, it is a resource where hypotheses can be explored and where a negative answer is viewed as valuable as a positive answer. It is therefore a place of learning.

REFERENCE

Reynolds, P. 1979. Iron Age Farm: the Butser experiment. London: British Museum.

8 The Historical—Archaeological Experimental Centre at Lejre, Denmark: 30 years of experimenting with the past

MARIANNE RASMUSSEN AND BJARNE GRØNNOW

INTRODUCTION

A reconstruction of an Iron Age house engulfed in flames and smoke marked the dramatic culmination of a carefully planned archaeological experiment. A group of scientists headed by the ethnologist Hans-Ole Hansen observed the burning down of the house and recorded the whole process in detail. The place: the Historical—Archaeological Experimental Centre in Lejre. The year: 1967.

The aim of the experiment was to recreate the burning down of a prehistoric house in order to give archaeologists a better basis on which to interpret the evidence from original Iron Age sites that contain remains of houses destroyed by fire. This first experiment in Lejre helped to establish the international reputation of the Centre and the foundation was laid for this experimental and educational institution, which is still flourishing thirty years later (Figure 8.1). Now, as then, the Centre's work is based on three, inter-woven themes: experimental archaeology, education, and public information about the past.

EXPERIMENTAL ARCHAEOLOGY AT LEJRE

History and organization

Denmark has a long and internationally recognized tradition of experimental archaeology, for example, in the middle of the previous century Chancellor Sehested from Broholm on Funen carried out experiments concerning the manufacture and use of stone axes (Sehested 1884). During the 1940s and 1950s a team of scientists headed by geologist J.Troels-Smith and ethnologist Axel Steensberg carried out a series of experiments with forest clearing, burning and crop growing in the Draved Forest in southern Jutland (e.g. Jørgensen 1985; Steensberg 1979). The latter was among the group of researchers who, in the early 1960s, supported the ideas of two students, Hans-Ole Hansen and Svend



Figure 8.1 The Historical—Archaeological Experimental Centre is situated in beautiful undulating countryside near the village of Gammel Lejre, southwest of Roskilde. On the 50 hectare site experiments are carried out with among other things, the reconstruction of Iron Age houses

Nielsen, of creating a permanent site for experimental archaeology. In spite of some reluctance from the archaeological establishment, the initiative was successful due to a financial grant from the Carlsberg Foundation and 50 hectares of beautiful land generously donated by Count Knud Holstein-Ledreborg. The Historical—Archaeological Experimental Centre opened in May 1964.

During the first three years the reconstruction of an Iron Age village was completed and a number of experimental workshops were established. The aim was to build up the necessary facilities and physical environment to enable more widely ranging archaeological experiments to be carried out. General public interest in the activities at the Centre grew quickly and in 1966 there were 55,000 visitors to the Centre. This public interest was crucial as lack of stable public funding meant that the Centre's survival was reliant upon entrance fees and interpretation services.

During its first decade the Centre also developed a new pedagogical approach to the teaching of schoolchildren. Concepts such as 'historical workshop teaching' and 'hands-on activities' were developed and tested with great success. In contrast to the usual awe-inspiring distance between objects and viewers, the new approach invited children (and other visitors) to touch and to use the reconstructed objects. Lejre's new ways of presenting the past to the public meant that it soon became one of the best-known 'museums' in Denmark. The



Figure 8.2 Every year the Centre's facilities are used by guest researchers; here, Peter Vemming records experiments with different flint arrow heads

Centre is now regarded as the 'mother' of a number of interpretation centres and, in particular, educational institutions, which have been established in Denmark during the last decade.

Today, covering an area about 50 hectares, the Centre has developed in several ways. The Iron Age village still forms the main activity area, but more reconstruction areas have been added through the years: a field for reconstruction of prehistoric graves, an Ertebølle site (late Mesolithic), an activity area with fire and Iron Age food as a theme, and historic peasant cottages. Three historic workshops run by professional craftsmen dealing with reconstructions and experiments in pottery, textiles and metal have been established. In the past few years a 'field school'—including a permanent village and a market place—has focused on the Viking period. The staff of the Centre now consists of a core of 10 permanently employed academics, secretaries, area managers, craftsmen and teachers and about 50 seasonal staff employed during the main season. It is an independent institution supported to some extent by grants from the Ministry of Education and the regional council. However, the survival of the Centre is still dependent on the income from about 70,000 visitors every season, from courses and from private and public project funding.

Categories of experiments at Lejre

The Centre's objectives clearly state that its main purpose is to carry out research into the past through experimental archaeology. Experimental archaeology is

seen not only as a 'tool' but also as a *partner* in the interpretation process. During any experiment new ways of looking at the prehistoric material emerge and the researcher returns to the primary sources with new questions. This process encourages new experiments and consequently a fruitful, hermeneutic, circle is established.

Experimental archaeology is often involved in solving specific technological questions regarding the making and use of prehistoric tools. Such controlled experiments, during which individual variables are isolated and tested in turn, is a rational way of dealing with technology and this method is frequently used in Lejre (e.g. Jensen 1991; Juel Jensen 1994, 1996; Madsen 1984). However, the interplay between experiment and study of the original finds is seen as essential and has led to substantial new understandings (e.g. Aschenbrenner 1995; Bloch Jørgensen 1991; Fischer *et al.* 1984; Lyngstrøm 1997; Rønne 1991).

Another important category of experiments carried out in Lejre deal with prehistoric subsistence strategies or complex working processes. For example, the environmental impact of a particular agricultural strategy can be documented through a long-term experiment, which produces patterns in forest vegetation, wild and domesticated fauna and flora, or in food or waste products (e.g. Christensen and Rasmussen 1991; Hatting 1993; Henriksen 1996; Rasmussen 1989; Robinson and Boldsen 1991). These patterns created by long-term agricultural experiments can then be compared with archaeological evidence from prehistory.

In the same way, the testing of theories concerning the construction and use of complex structures such as houses or megaliths have been based on reconstructions made at Lejre. Traces in the soil, tool marks on construction materials or wear marks on the tools are all aspects of the reconstruction process which allow comparisons to be made with real archaeological data. Qualitative information on techniques and working sequences as well as quantitative information on, for example, the amount of human effort required to carry out any given task can be collected for comparison and for stimulating fresh hypotheses (e.g. Draiby 1991; Jønsson and Kaul 1996).

Other experiments deal directly with the formation of the archaeological record. Twenty years ago Lejre pioneered this approach with experiments concerning distribution patterns, in particular lithic waste, on Stone Age sites (Fischer *et al.* 1979) and similar experimental research continues today (Johansen 1996; Mikkelsen 1997). In a similar way, the construction of an Iron Age fortification and the subsequent recording of its decay represent a long-term taphonomic experiment (Jønsson and Kaul 1996). The most famous example of this type of research must be the house burning experiment, mentioned above (Boye 1996; and see cover). Currently the processes behind the unique preservation conditions in early Bronze Age mounds in Denmark are being investigated through experiments (Breuning-Madsen *et al.* 1996).

Finally, in addition to the above categories of experiments, which are all based on a high degree of structure and documentation, we carry out 'holistic



Figure 8.3 Prehistory can be experienced in many ways and at many levels; here, a group live in one of the Iron Age houses as part of an 'holistic experiment'

experiments', for example, wintering in the reconstructed Iron Age houses (Figure 8.3). We consider this informal simulation of prehistoric 'daily life' (as far as this can be reconstructed) a valuable source of inspiration—both for the general public and education groups who visit the Centre and also for professional archaeologists.

Current research at Lejre

The Centre has recently published a research strategy for the next five years. (Rasmussen 1997) Based on relevant and actual archaeological problems a selection of projects and research areas have been defined. Five of these projects are outlined below. First, informative new archaeological evidence, together with the results of a number of recent pollen analyses, point to major and fundamental changes in agricultural strategy in the Nordic Bronze Age. The environmental impact of these changes appears to have been dramatic and, in effect, began the process that created the historically well-documented and characteristic open landscape of the region. However, the technology behind the new cultivation system and its development is almost unknown. Thus a series of experiments related to the central problem of farming technology and its tools (the ard and bronze- and flint-sickles) has been developed which will contribute significantly to the discussion and interpretation of these changes.

A second important research area is that of prehistoric and historic food production and storage. This project is concerned with three inter-related aspects of food production and storage. First, the processes behind household production

and storage during the Iron Age; second, the later development in some processes from household ('cottage') production to specialist worker, for example milling; and, third, analysis of the nutritional value of the different historically documented food processing and conservation methods.

Not all of our projects necessarily originate in archaeological problems related to subsistence and economy. A deeper insight into the ritual and ideological aspects of society can also be obtained by experimental observations. Thus a third research project at Lejre considers problems related to the technology, resources and effort involved in the construction of ritual monuments. At present this project is studying Bronze Age turf-built barrows and different neolithic megalithic structures. The final goal of the project is to introduce new evidence into the debate on the social significance and role of monument-building.

A full-scale reconstruction of the so-called 'King's Hall' from Lejre is the Centre's major reconstruction project for the next few years (Larsen 1994; and see Figure 8.4). The hall is one of the most spectacular recent archaeological discoveries in—and the largest prehistoric building known from—Scandinavia. While the reconstruction as such is an *interpretation* rather than a proper experimental project in the sense of the methodological categories mentioned above, the interpretation rests on a thorough and critical analysis of all available

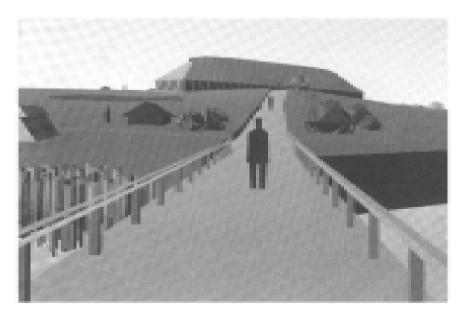


Figure 8.4 The Centre plans to build a reconstruction of the Viking 'King's Hall' from Gammel Lejre. One of the results of research so far has been the creation of a 3-dimensional computer model of the Centre's landscape in which the King's Hall is placed

archaeological sources of Nordic Viking period halls including, for example, their construction, internal layout and 'social space'.

Obviously, it is necessary to prioritize the Centre's research strategies. However, in order to develop the methodology of experimental archaeology it is also essential to stimulate new ideas and alternative viewpoints. As a fifth project the Lejre Research Grant scheme has been instigated whereby researchers are able to apply for financial support to carry out experiments at Lejre. Between 10 and 15 projects are supported annually. These guest researchers and their work add an extra dimension to the Centre for visitors and staff alike and are a very important aspect of every new season at Lejre (and see Figure 8.2).

EDUCATION AND INTERPRETATION

Higher education

How new approaches to experimental archaeology are conceived—and even more how such new approaches are applied—is very varied. The main objective when developing a new approach, as far as the Centre is concerned, is that any new approach should contribute to the development and the maintenance of the scientific standard set by the Centre's past work. Experiments are reinforced and strengthened through links with university colleagues.

As part of this dialogue a programme for archaeology students has been established over the last few years. It consists of two main parts. First, an undergraduate course in experimental archaeology which covers the history and scientific nature of the subject; a number of selected case studies; and some limited, real, 'hands-on' experimental archaeology. Second, international two-week intensive 'Lejre Seminars' for graduate students are held every other year. These include lectures on theory, participation in predesigned professional experiments conducted by experienced researchers, and individual experiments conducted by the students. Students have to complete a report at the end of the seminar (HAF 1996).

Public interpretation

It is the philosophy of the Centre that all interpretation and education must be closely linked to its research. It is important to pass on to the public the sense that archaeological interpretation is a continuous, ongoing process and that reconstructions do not represent a definite and certain 'truth' but rather 'physical ideas' about the past. These ideas—and consequently our reconstructions—change through time spurred by new directions in the discipline of archaeology and new finds. This is clearly demonstrated in the Iron Age village, where long houses from the 1970s are seen and used at the same time as, quite different, new, reconstructions.

Visitors are encouraged to enter into dialogue with researchers and staff. They are encouraged to watch, and sometimes also take part themselves, in the archaeological experiments being carried out at the Centre. The latest

example of an experiment in which visitors took part was the reconstruction, or rather re-building, of the stone cist from Gravlev Hede. Over the past two summers an international student team headed by archaeologist Lars Holten re-erected this large cist of the single-grave culture, which the Centre 'inherited' from the National Museum of Denmark some years ago. The idea of the experiment was to test new theories on the transportation and building techniques concerning megaliths—new ideas, which have crystallized during a long-term campaign on the restoration of Danish megaliths. An exhibition, demonstrations and simple illustrative experiments introduced visitors to the archaeological problem. When the huge stones were pulled into position, visitors were encouraged to help the student team and actually took part in the experimental process.

Schools

During the last few years new themes and teaching methods have been tested in the Centre's school programmes. 'Hands-on' based teaching previously focused on natural materials and traditional crafts. While this style of teaching continues, other approaches have been developed where children deal with topics such as travel, trade, cultural contact, religion and the social structure of Viking society. Also, the fascinating historical landscape around Old Lejre—containing a famous early royal settlement and the actual scene of Beowulf's heroic deeds—is introduced to school children through drama and saga telling.

CONCLUSION

The links between original archaeological evidence, scientific experiment, and interpretation and education are essential to the Experimental Centre at Lejre. This emphasis of Lejre as an *experimental centre* is especially crucial at a time when interpretation centres in Western Europe and Scandinavia present a fixed picture of the past that put as much weight on 'entertainment' as historical accuracy. This explains why research carried out by the Centre's own staff and by guest researchers funded by the Lejre research grants is encouraged. This explains the emphasis on close contact with universities and museums through courses and international seminars held at the Centre. And this explains why the Centre focuses on unsolved questions about prehistoric life (and death) and the working processes leading to a reconstruction, rather than on 'final answers'. The Centre's approach is very much in contrast to the current trends concerning exhibitions and 'modern' interpretation centres. However, this philosophy is the way to maintain integrity and keep Lejre vigorous for the next thirty years.

REFERENCES

- Aschenbrenner, T.G. 1995. Should we believe in experiments? In *Glass Beads: cultural history, technology, experiment and analogy.* Studier i Teknologi og Kultur 2. M.Rasmussen, U.Lund Hansen and U.Näsman (eds), 123–7. Lejre: Historical—Archaeological Experimental Centre.
- Bloch Jørgensen, A. 1991. Jernalder drejekværne: form og funktion. (Iron Age rotary querns: form and function) In *Eksperimentel Arkæologi*. Studier i Teknologi og Kultur, 1, B.Madsen (ed.), 91–102. Lejre: Historical—Archaeological Experimental Centre.
- Boye, L. 1996. Jernalderhus I flammer—et brandeksperiment med store perspektiver. (The burning of an Iron Age house—an experiment holding wide perspectives.) In *Arkæologiske eksperimenter i Lejre*. M.Meldgaard and M. Rasmussen (eds), 57–64. Lejre: Historical-Archaeological Experimental Centre.
- Breuning-Madsen, H., M.K.Holst and M.Rasmussen. 1996. Jernkapper i bronzealderens gravhøje—forsøg med en minimodel af Egtved-pigens gravhøj. (The formation of iron sediments in Bronze Age mounds—experiments with a small-scale model of the egtved girl.) In *Arkæologiske eksperimenter i Lejre*. M. Meldgaard and M.Rasmussen (eds), 113–20. Lejre: Historical-Archaeological Experimental Centre.
- Christensen, K. and P.Rasmussen 1991. Styning af træer. (Pollarding of trees). In *Eksperimentel Arkæologi*. Studier i Teknologi og Kultur, 1, B.Madsen (ed.), 23–30. Lejre: Historical—Archaeological Experimental Centre.
- Draiby, B. 1991. Studier i jernalderens husbygning. Rekonstruktion af et langhus fra ældre romersk jernalder. (Studies in Iron Age house construction. The reconstruction of a longhouse from the early Roman Iron Age). In *Eksperimentel Arkæologi*. Studier i Teknologi og Kultur, 1, B.Madsen (ed.), 103–34. Lejre: Historical—Archaeological Experimental Centre.
- Fischer, A., B.Grønnow, J.H.Jønsson, F.O.Nielsen and C.Petersen 1979. Stenaldereksperimenter i Lejre. Bopladsernes indretning. (Stone Age experiments in Lejre: internal organization of the settlements). Working Papers 8. Copenhagen: National Museum of Denmark.
- Fischer, A., P.Vemming Hansen and P.Rasmussen 1984. Macro and micro wear traces on lithic projectile points. *Journal of Danish Archaeology* 3:19–46.
- HAF (Historical—Archaeological Experimental Centre) 1996. Experiments in Archaeology. Lejre Seminar 1995. Technical Report, 2. Lejre: Historical—Archaeological Experimental Centre.
- Hatting, T. 1993. Fåret i oldtid og nutid. (The sheep in past and present.) Forsøg med fortiden 4. Lejre: Historical-Archaeological Experimental Centre.
- Henriksen, P.S. 1996. Oldtidens landbrug—forsøg med jernalderens agerbrug. (Prehistoric farming—experiments with Iron Age agriculture.) In *Arkæologiske eksperimenter i Lejre*. M.Meldgaard and M.Rasmussen (eds), 65–72. Lejre: Historical—Archaeological Experimental Centre.
- Jensen, G. 1991. Ubrugelige økser? Forsøg med Kongemose- og Ertebøllekulturens økser af hjortetak (Unusable axes? An experiment with antler axes of the Kongemose and Ertebølle cultures.) In *Eksperimentel Arkæologi*. Studier i Teknologi og Kultur, 1, Madsen, B. (ed), 9–22. Lejre: Historical-Archaeological Experimental Centre.
- Johansen, L. 1996. Flinthuggerens værksted?—forsøg med flinthugning. (The flintknapper's workshop?—experimental flint knapping.) In *Arkæologiske eksperimenter i Lejre*. M.Meldgaard and M.Rasmussen (eds), 18–23. Lejre: Historical Archaeological Experimental Centre.
- Jønsson, J.H. and F.Kaul 1996. Voldgrav og palisade—rekonstruktion af en forhistorisk fæstning. (Ditch and palisade—the reconstruction of a prehistoric fortification.) In *Arhæologiske eksperimenter i Lejre*. M.Meldgaard and M.Rasmussen (eds), 31–9. Lejre: Historical-Archaeological Experimental Centre.

- Jørgensen, S. 1985. Tree-Felling in Draved. Copenhagen: National Museum of Denmark.
 Juel Jensen, H. 1994. Flint Tools and Plant Working: hidden traces of Stone Age technology. Århus: University Press.
- Juel Jensen, H. 1996. En genvej til Danmarks ældste agerbrug. (A shortcut to the earliest agriculture in Denmark.) In *Arkæologiske eksperimenter i Lejre*. M.Meldgaard and M.Rasmussen (eds), 89–96. Lejre: Historical-Archaeological Experimental Centre.
- Larsen, A.C. (ed.) 1994. Kongehallen fra Lejre—et rekonstruktionsprojekt. (The hall of the Lejre King—a reconstruction project.) Technical Report 1. Lejre: Historical-Archaeological Experimental Centre.
- Lyngstrøm, H.S. 1997. In the borderland of archaeology: experimental forging. In *Early Iron Production: archaeology, technology and experiments*. Technical Report 3, L.Nørbach (ed.), 27–35. Lejre: Historical—Archaeological Experimental Centre.
- Madsen, B. 1984. Flint axe manufacture in the Neolithic: experiments with grinding and polishing of thin-butted axes. *Journal of Danish Archaeology* 3:47–62.
- Mikkelsen, P. 1997. Straw in slag-pit furnaces. In *Early Iron Production: archaeology, technology and experiments*. Technical Report 3, L.Nørbach (ed), 63–6. Lejre: Historical—Archaeological Experimental Centre.
- Rasmussen, M. 1997. Historisk Arkæologisk Forsøgscenters Forskningsstrategi 1998–2002. (Historical—Archaeological Experimental Centre. Research Strategy 1998–2002). Lejre: Historical—Archaeological Experimental Centre.
- Rasmussen, M., U.Lund Hansen and U.Näsman (eds) 1995. *Glass Beads: cultural history, technology, experiment and analogy.* Studier i Teknologi og Kultur, 2. Lejre: Historical—Archaeological Experimental Centre.
- Rasmussen, P. 1989. Leaf foddering in the earliest neolithic agriculture. *Acta Archaeologica* 60: 71–86.
- Robinson, D. and I.Boldsen 1991. Et eksperiment til belysning af jernalderens korndyrkning. (The cultivation, harvesting and processing of corn in the Iron Age—practical experiments). In *Eksperimentel Arkæologi*. Studier i Teknologi og Kultur, 1, B.Madsen (ed), 83–90. Lejre: Historical-Archaeological Experimental Centre.
- Rønne, P. 1991. Forsøgsarkaeologi og broncealderens ornamentik (Experimental archaeology and Bronze Age ornamentation). *Eksperimentel Arkæologi*. Studier i Teknologi og Kultur, 1, B.Madsen (ed), 31–49. Lejre: Historical—Archaeological Experimental Centre.
- Sehested, N.F.B. 1884. Archaeologiske undersøgelser 1878–1881. (Archaeological investigations 1878–1881.) Copenhagen: C.A.Reitzel.
- Steensberg, A. 1979. Draved: An experiment in Stone Age agriculture. burning, sowing and harvesting. Copenhagen: National Museum of Denmark.

9 Reconstruction as ideology: the open air museum at Oerlinghausen, Germany

MARTIN SCHMIDT

INTRODUCTION

A popular dictionary of philosophy defines ideology as:

Misinterpretation of reality, that is theoretically deficient but useful and starts out from the belief that ideological systems of thought contain appraisals and normative statements presented as facts (as if they were universal truths). The pseudo-scientific ideological interpretation of reality is pursued so as to lend support to legitimate a particular world view or political objective, which will then in turn appear more legitimate.

(Austeda 1978:114)

This is, Without doubt, a bourgeois definition and Marxists would argue that it is an ideological definition as well. Despite these difficulties with the definition, this chapter attempts to tackle the problem of reconstruction as ideology.

As a German, when talking about ideological reconstructions one tends to think exclusively about the reconstructions of the Third Reich. I prefer to talk about 'models' because we are rarely concerned with any remains that can be reconstructed (see e.g. Schmidt 1995). Therefore, I will use the term 'model' myself and reconstruction if I cite somebody else. Ahrens (1988:22) divides the history of archaeological models in Central Europe into four partially overlapping phases.

- 1 The era of pile dwellings (*Pfahlbauten*), 1888–1940.
- 2 The presentation of the cultural and technical superiority of the Nordic/German race (*germanische Kulturhöhe*), 1936–1940.
- 3 Scientific—educational reconstructions since 1936.
- 4 Commercial educational reconstructions since 1984.

According to Ahrens, only the open air museums of Nazi Germany were preponderantly ideological. In phases 3 and 4 he sees a striving for objectivity.

During the era of pile dwellings the people of the past were presented as happy, if simple, savages. But the fact that pile dwellings were, along with Wilhelm Tell, a symbol of integration and common identity for the multicultural and multilingual society of Switzerland should not be overlooked. This was not only true of prehistoric pile dwellings. In Imperial Germany, the medieval past was used to advance a feeling of national unity. Fake medieval castles and additions to big Gothic cathedrals took the place of archaeological reconstructions.

Griepentrog (1991) has comprehensively described the general state and development of German museums up to 1945. According to him, a tendency towards ideological representations in museology began to develop at the end of the nineteenth century. Ideologies emphasizing continuity and the idea of racial identity became increasingly popular. Material culture was no longer a testimony of the past but a symbol of timeless immutable laws and norms (ibid.: 167). These tendencies abounded not only in archaeology, but in all parts of the historical sciences (advanced to the state of a paradigm, for example, in German language studies by the influential work of the Grimm Brothers—Seidenspinner 1994).

THE NAZI MUSEUM

The open air museum in Oerlinghausen offers a good example of Nazi museums and the ideology presented therein (for a general summary of Nazi archaeology see Hassmann in press; Arnold 1990). As one of the *Freilichtmuseen der deutsche Vorzeit* (open air museums of the German past), the opening was celebrated with a big turnout of locals and Nazi VIPs, including Reichminster Rust (Figure 9.1 and Figure 9.2).

Hans Reinerth, the scientific supervisor of the new museum, was the Professor of Prehistory at the Reichsuniversität Berlin and Head of the Reichsbund für Vorgeschichte at the Amt Rosenberg. Oerlinghausen is situated in the region of Germany where the *saltus teutoburgiensibus* is found, the supposed site of the battle where a confederacy of Germanic tribes under their leader Arminius defeated and annihilated the Roman legions under Varus in AD 9. This victory heralded the end of Roman expansion into transrhenan Germany (*Germania Libera*). Today the battlefield is thought to be located 100 km to the northwest, near Osnabrück (where a huge museum is planned to coincide with EXPO 2000).

The local population was already aware of nationalistic ideas. The famous *Hermansdenkmal*, a huge statue constructed between 1838 and 1875, is only a few kilometres from the museum. Hermann (Arminius), as the liberator of 'Germany', lifts his sword, a gift from the Krupp factories, then and now an important arms producer, against the French arch enemy. The Externsteine, a picturesque sandstone formation, is nearby and has traditionally been interpreted as an important Germanic shrine although there have never been any



Figure 9.1 Grand opening of the 'Germanic farmstead' in Oerlinghausen in 1936. 'Reichserziehungsminister' B. Rust is visiting the houses, guided by Prof. Dr. H. Reinerth, the head of the 'Reichsbund für deutsche Vorgeschichte' within the 'Amt Rosenberg'. Both are in SS-uniforms.

archaeological finds to prove this. It is interesting to observe that today the summer solstice is celebrated there by both leftist neo-pagans and neo-Nazi activists.

The building of the museum in 1936 took place in the context of a quarrel between Reichsbund für Archäologie and Amt Rosenberg, on the one hand, and the SS-Ahnenerbe (Ancestral Inheritance) under the leadership of Himmler, on the other. The local promoter of the museum was Harmann Diekmann, a very keen amateur archaeologist, who had an impressive career—moving from ordinary teacher to school director—during the Third Reich. When, together with the Mayor of Oerlinghausen, Diekmann asked for permission to build a full-scale open air museum, it was refused several times by Amt Rosenberg and personally by Hans Reinerth.

However, the Ahnenerbe then took over the nearby Externsteine to carry out huge excavations to prove it was an important archaeological site. The Ahnenerbe even planned to re-erect a huge modern National Socialist/pagan shrine. In a purely political move to retain influence in this important region Reinerth and Amt Rosenberg (1930) totally changed their opinion within a few days, and the construction of the museum began immediately.

The buildings in the Oerlinghausen museum presented a compelling illustration of the image of German racial superiority (*Herrenmenschentum*). There was



Figure 9.2 The opening of the museum was part of the celebrations of the 900th anniversary of the town of Oerlinghausen. Here, amateur actors take part in an overtly nationalistic Germanic play performed during the celebrations

the house of the leader (Führer), with a high quality interior (Figure 9.3). The furniture was crafted from massive beech or oak timber, bearskins adorned the walls and weapons hung within easy reach over the leader's bedstead. The furnishing was a crude mix, combining everything from second-century BC Celtic cauldron fittings to seventh-century furniture from the Alemannic cemetery of Oberflacht. In addition there were chests, of a form developed in the medieval period, decorated with swastikas.

The other buildings were extremely tidy and were also well built, but there were subtle differences. The guesthouse or the home of the retired farmer (the existence of which is based on strict analogy to recent folk tradition) was even built a little askew. When the first article to feature the reconstruction appeared in the popular archaeology magazine *Germanenerbe* in 1936, it was entitled 'A Germanic farmstead from the first century'. However, in the same magazine the first full-page photograph showed a 'Germanic warrior from the time of the battle of Varus'. Some pages later, in the article about Oerlinghausen, there is an illustration of the same 'warrior' sitting in the museum, talking to a Germanic maiden. In this way the 'Germanic farmstead from the first century' was changed into the 'Germanic-Cheruscan farmstead of the time of the battle of Varus'. This demonstrates the fully intentional manipulation of prehistory by Nazi



Figure 9.3 The interior of the 'house of the leader' at Oerlinghausen in 1936. The furniture consisted of replicas and imitations from the early Medieval cemetery at Oberflacht. The cauldron hook is a replica of an artefact from the Celtic oppidum 'Altenburg bei Niedenstein'

ideologists: strong Germans fighting for their land and freedom just as the soldiers of the nationalist state were ready to do. This picture was used to provide historical legitimization for contemporary politics.

In Oerlinghausen and elsewhere a fake past was reconstructed that served as an eternal and immutable ideal for the present. The aim of the reconstruction was not to show historical reality, but to underline Germanic cultural superiority and the continuity of Germanic settlement and the German race. Later on, the attempted conquests in the East were also legitimized with archaeological 'facts'. Kossina had argued for a continuity of 'Germanic' settlement since the Mesolithic. Kilian (1988) argued for Germanic continuity from at least the late Neolithic.

At the end of the war the museum was closed by the local council. Diekmann was not allowed on the site. In February 1946 the museum was sold to a carpenter who pulled it down to re-use the timber. This simple, practical act was, in itself, a kind of de-Nazification.

THE SECOND AND THIRD MUSEUMS

In 1961, the revived local 'Society for Germanic Prehistory', who had run the first museum, rebuilt the whole complex. Once again Reinerth was the scientific director and once again Diekmann was the curator. The second museum at Oerlinghausen, now called a 'Germanic fair', was a 100 per cent copy of the original one. Some swastikas were removed, but the message was the same as in 1936. In 1974 the museum was accidentally set on fire by children playing nearby. Shortly afterwards Diekmann died—people said of a broken heart because of the destruction of 'his' museum.

The next stage in the history of the Oerlinghausen museum began very curiously. Hermann Gräfe, a businessman, took the initiative to rebuild the museum. He was a fan of open air museums, but had no fixed ideas about ideological implications (pers. comm., H.Gräfe). At first Gräfe, who at that time did not know any better, cooperated with Reinerth, but he quickly ended the collaboration. It was only when cooperation with Reinerth had come to an end that other archaeologists were consulted. However, by then the Germanic farmstead had already been rebuilt (Figure 9.4). Nevertheless, since this time the museum has been fully accepted by the scientific community. The new houses remain unfurnished, because there is no archaeological evidence for furniture and interior partitions (the houses are used for topical exhibitions about nutrition, pottery making and clothing). It is not, however, clear whether non-specialist visitors understand that this was a conscious choice of the reconstructor, or whether they thought that it had been a prehistoric reality. Other houses, based on Bronze Age, early medieval and neolithic plans and built under the supervision of the architect/prehistorian Helmut Luley, are very different from 'Germanic' houses. They are decidedly and intentionally bare, conscientiously based on archaeological features and facts (Figure 9.5)

At the same time, all these houses show a very characteristic style. Ahrens (1990:2) described them as typical examples of the 'rustic style' of reconstruction. Models always tell us more about the period in which they were built, and the people who built them, than about the past. This is, however, not a negative feature in itself. For example, in 1986, when increasing attention was paid to ecological matters, at the height of the 'green movement', work began on reconstructing the natural environment of the different periods and growing typical cultivated plants, cereals, and so on.

As outlined above, the 'Germanic farmstead' of 1961 was an exact copy of the Nazi buildings, down to the tiniest details. This presentation of the Germanic farmstead, which proved to be very successful, is still present in the public mind. This is certainly due to the comprehensive, lifelike and popular presentation. Even today the locals call the museum the 'Germanic farmstead', although the name was changed to 'Oerlinghausen Open Air Museum' when it was reopened in 1980. Even on a map of the town of Oerlinghausen, published in 1994, there is a reference to the 'open air



Figure 9.4 Actual view of the neolithic house (c. 4400 BC) in the Oerlinghausen museum. The Bronze Age and the neolithic house are two of the most striking examples of what Claus Ahrens has termed 'the rustic phase of reconstruction'.

Germanic farmstead'. The more recent archaeological feature-based phase of the reconstruction is obviously not as popular as the previous ones. To put it bluntly: the Nazi presentation of their racist *Herrenmenschenideologie* was felt to be perfect and accepted completely by the local community. The ingenious propaganda methods of the Nazis were applied to the teaching of prehistory as well. Prehistory became an important means of legitimizing fascist political and social aims (Hassmann in press). The memory of the perfect pictures from the Nazi era cannot easily be erased. Older visitors will still subsume the whole of prehistory under the heading of 'Caves, Neanderthals and old Germans', whether it be the neolithic or medieval period. After the war, the politically motivated misuse of archaeology that manifested itself predominantly in open air museums led to a retrenchment into 'ideologically free and objective research' (Narr 1990:304).

The results, in the classical guise of catalogues, county inventories and corpora, could not easily be popularized. So no new images were created, no democratic pluralist interpretation of the past was offered. The prolonged after-effects of Nazi archaeology should be a source of embarrassment to contemporary archaeologists. Our inability to create our own adequate image and gripping picture helps to preserve Nazi archaeology and the pictures it created. Visitors and amateurs crave pictures and comprehensible interpretations and are not

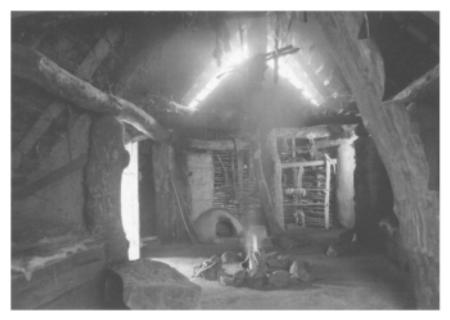


Figure 9.5 The domestic part of the Bronze age house (c. 1500 BC) in the Oerlinghausen museum today

satisfied with purely scientific or aesthetic statements. If the archaeologist cannot deliver satisfying pictures that inspire the imagination, the public takes them from wherever else they can get them, whether they be old Nazi presentations, modern esoteric eccentrics, new age prophets or clever salesmen like von Däniken (for a general consideration of public attitudes to and interest in archaeology see Schmidt 1995).

However, it must be stressed that today's models, despite their careful and detailed scientific background and painstaking attention to detail, are certainly not ideology-free. During the Third Reich (Ahrens phase 2) the national folk tradition was emphasized, especially concerning moral values. Today, in German archaeology, only technical progress is stressed, as everything else is considered suspect: ideology might lurk in some dark corner, and the objective scientist would be forced to consider the socio-political relevance of his/her work—not a popular option (Schmidt and Wolfram 1993, and see Härke and Wolfram 1993). Most German archaeologists believe themselves to be completely objective and unprejudiced in every respect. They argue that their research is immune to all political, economic and ideological (in *sensu latu*) influence (see, for example, Biel 1993).

Therefore archaeological 'reconstructions' are confined to the presentation of the unavoidable and desirable march of technical progress. Examined more

closely, this ostensibly objective presentation of the results of pure academic research conveys a message very similar to the fascist one: this is what the party tells you, therefore you have to believe it—this what the scientists tell you, therefore you have to believe it.

Indeed, there has been very little change in attitude: we still talk about 'our forebears'—still the implicit idea of continuity. To call the past 'a foreign country' would occur to very few German archaeologists. The questions of continuity and/or discontinuity are rarely, if ever, discussed. Archaeologists see themselves as belonging to the humanities, but when they have to justify their existence they fall back on scientific methods (Schmidt and Wolfram 1993). Most German archaeologists are unwilling to express any kind of theoretical views, or even consider these relevant to their own work.

Of course scientific integrity seems to be vouchsafed if 'hard facts' are exclusively relied on in the creation of reconstructions. However, this begs the question of whether modern reconstructions are scientific (and see Schmidt 1995). For example, the neolithic 'rustic house' in the Oerlinghausen Open Air Museum could also be built to resemble a Polynesian house, colourfully decorated all over, with filigree woodworking. It is just a question of interpretation. Dull models are not necessarily more 'scientific', for this seemingly scientific approach must also be seen to be ideological as well:

So it becomes obvious who benefits from the reduction of archaeology to typology. By presenting scientists as being able to objectively classify and administer reality, a world where material objects gradually evolve, the existing political system is stabilised. The past no longer belongs to everybody. The past has been taken over, not only by the fascist ideologists, but by the technocrats of the 80s as well.

(Sommer 1989: np)

To pretend not to follow an ideology is ideological as well, the more dangerous for not being openly expressed.

Normally the results of academic research are not presented in such a way as to give the 'man in the street' the opportunity to understand and criticize them. In spite of this there is considerable interest in how archaeologists arrive at their conclusions and models, on what facts the images are based. Visitors should be constantly confronted with this question. I have changed my way of giving guided tours since I started working at Oerlinghausen; I now spend most of the time explaining how archaeology and open air museums work. Visitors are surprised to hear about the problems connected with the models, because they are not used to criticizing the results of research or talking to a scientist who is critical of his own profession and frequently quite animated discussions follow. Most visitors agree that it is more satisfying to learn about methods and problems than to be simply fed the so-called 'facts' about how 'our forebears' used to live. A few others are disappointed to see their illusions shattered. But we cannot

please everyone, nor should we aim to. The message deriving from open air museums should be that not only the results but research itself can be thrilling.

It is not important which facts are presented, but how these facts are presented and explained. An 'objective' fact that remains unexplained is as shabby and intellectually dishonest as a Nazi lie. 'The way is the goal', as a common German saying puts it. History is made today, and that is why I prefer to call our houses 'models' and not 'reconstructions'. We do not produce prehistoric reality. As Walter Benjamin puts it, 'History is the subject of a construction located not in a homogeneous and empty time, but in the present happening now' (quoted in Tiedemann-Barel 1991:701).

Kristiansen (1993:3) succinctly sets the agenda: 'We can no longer hide behind source criticism and the study of formation processes to neutralise the past, but need to set the political agenda of our work; otherwise others will do it for us.' So 'reconstruction as ideology' is perhaps not the correct title for this chapter. Reconstruction *is* ideology, there is no doubt about it. We have a choice of ideology, but it should be a conscious choice, one that we can justify (Schmidt and Wolfram 1993; Sommer 1989). We construct history, based on our contemporary beliefs and opinions. Scientists are formed by their way of life, political views and opinions, and so on. No one can liberate themselves from these influences. How to represent models/reconstructions and the ideology they contain in a way that allows criticism, discussion and different opinions remains a moot question.

REFERENCES

Ahrens, C. 1988. Archälogische Rekonstructionen. By og bygd, Festskrift til Arne Berg. Norsk Folkemuseums Arbok 32, 19–48.

Ahrens, C. 1990. Wiedersaufgebaute Vorzeit. Archäologische Freilichtmuseen in Europa. Neumünster: Wachholtz.

Amt Rosenberg 1930. Mythus des zwanzigsten Jahrhunderts. Munich: Hoeneichen.

Arnold, B. 1990. The past as propaganda: totalitarian archaeology in Nazi Germany. *Antiquity* 64, 464–78.

Austeda, F. 1978. Wörterbuch der Philosophie. Berlin: Gebrueder.

Biel, J. 1993. Kommentar zu M. Schmidt und S. Wolfram 'Westdeutsche Museen objektiv und belanglos'. In *Macht der Vergangenheit—Wer macht Vergangenheit?* Archäologie und Politik. S.Wolfram and U.Sommer (eds), 44. Wilkau Hasslau: Beier & Beran

Griepentrog, M. 1991. 'Frischer Wind' in der musealen 'Leichenkammer'. Geschichte in Wissenschaft und Unterricht 3, 153-73.

Härke, H. and S.Wolfram 1993. The power of the past. Current Anthropology 34, 182-4.

Hassmann, H. In press. Prehistoric archaeology in the Third Reich. In *Archaeology, Ideology and Society: the German Experience*. H.Harke (ed.), Cambridge: Cambridge University Press.

Kilian, L. 1988. Zum Ursprung der Germanen. Bonn: Habelt.

Kristiansen, K. 1993. 'The strength of the past and its great might': an essay on the use of the past. *Journal of European Archaeology* 1, 3–32.

- Narr, K.J. 1990. Nach der nationalen Vorgeschichte. In die sog, Geisteswissenschaften: Innenansichte. W.Prinz and P.Weingart (eds), 179–305. Frankfurt: Suhrcamp.
- Schmidt, M. 1995. Are dull reconstructions more scientific? Unpublished Acts of a Colloquium, Aubechies (Belgium).
- Schmidt, M. and S.Wolfram 1993. Westdeutsche Museen—objektiv und belanglos. In *Macht der Vergangenheit—Wer macht Vergangenheit? Archäologie und Politik.* S.Wolfram and U.Sommer (eds), 36–43. Wilkau Hasslau: Beier & Beran.
- Seidenspinner, W. 1994. Archäologie, Volksüberlieferung, Denkmalideologie. Anmerkungen zum Denkmalverständis, der Öffentlichkeit in Vergangenheit und Gegenwart. Fundberichte Baden-Württemberg 18, 1–15.
- Sommer, U. 1989. Aktuelle Entwicklungen der angloamerikanischen Theoriediskussion. *Grosse Familie, erstes Studententreffen Kiel 1989*. Kiel: Seminar für Vor und Frühgeschichte.
- Tiedemann-Barel, H. (ed.) 1991. Walter Benjamin: Gesammelte Schriften. Frankfurt: Suhrcamp.

10 Slavonic archaeology: Groß Raden, an open air museum in a unified Germany

ULRIKE SOMMER

SLAVONIC ARCHAEOLOGY: A HISTORY OF RESEARCH

Opinions about 'the Slavs' in what is now Germany have always been ambiguous. The philosopher Gottfried Herder in his *Ideas on the Philosophy of Mankind* characterized them as peaceable and industrious. But as they lacked warlike instincts and a constant military organization, they failed to form a nation of their own (Herder 1995:433–5). Today, only the Sorbic minority in the Lausitz (Saxony) speak a form of Slavonic language, but place names ending with -ow, -itz, -in, for example, Güstrow, Chemnitz and Schwerin, still show the extent of Slavonic settlement.

Slavonic antiquities held a romantic fascination in the eighteenth and nineteenth centuries, especially in Mecklenburg which was ruled until 1918 by a dynasty claiming descent from the Slavonic Obotritic kings. This is best illustrated by the search for the fabulous lost Slavonic cities of Rethra and Wolin and in the 'Prillwitzer Idole', a collection of sixty-six Slavonic idols with Runic inscriptions that were first published in 1768. Easily identified today as fakes, they created a heated scholarly discussion that lasted for seventy years after their publication (Maubach 1994).

For Hegel (1961:478), the Slavs were a people who had never been able to act independently as an historical force. Several authorities (e.g. Labuda 1969) have seen the Slavs as historically unimportant; others, emphasizing 'nationhood' as the defining point of historical significance, have stressed that, since 1795, the Russian Empire has been the only 'Slavonic' nation left in existence. Thefore, it has been argued, Slavonic people, with the exception of the Russians, were destined to be slaves (e.g. Wippermanan 1983:69), and thereby it had become part of the historical mission of the Germans to be the taskmasters and teachers of their Eastern neighbours (ibid.: 74).

Such views influenced interpretation of archaeological finds, especially as ethnic ascriptions to archaeological finds had been discussed from the middle of the nineteenth century onwards (Gummel 1938:276). Ethnic ascription even found its way into some fiction, where the ethnic origin of a newly excavated

bronze wagon was heatedly discussed—Germanic or Slavonic? (Smolla 1991:11). However, it was only when Virchow identified Slavonic pottery in 1872 (Virchow 1872; but cf. Lisch 1847) that a secure identification of archaeological finds could occur. However, in contrast to his unprejudiced interpretations of Slavonic finds (e.g. Virchow 1878, 1900), many of his colleagues tended to emphasize the 'primitive' nature of Slavonic remains. The Slaves were seen as a people without any creative impulse, their material culture based on imports and imitations deriving from Franks or Vikings in the north, and/or Awars and Byzantium in the south. The round Slavonic forts were interpreted as imitations of Ottonic (AD 936–1002) castles (e.g. Schuchardt 1939:353), the pottery mainly copies of German types (e.g. Näbe 1918) and so on. Well-made objects were identified as imports without further discussion. Thus, for example: 'Without question, the roots of these objects lie in the south-east [Byzantine Empire]. The Slavs on their own were certainly not capable to craft the refined...technique of jewellery' (Schuchardt 1939:370).

Slavonic material culture was epitomized as extremely simple and paltry, and this was sometimes interpreted as a sign of racial inferiority even before the Third Reich. For example, 'The popularity of wavy-line decorations can be explained by the primitive mental development of the Slavs' is the terse conclusion of one article (Moschkau 1918:215). According to some authors, Early Medieval Slavs still lived in pit houses that had been known to other Indo-Germanic tribes thousands of years earlier (Radig 1936:64).

Under the Nazi regime, the inferiority of the Slavs became official doctrine. The Slavs became those foreigners who, for a time, had occupied 'old Germanic native soil' (Bohm 1937:94). This added a political dimension to the search for the Slavonic 'homeland', especially after the Polish archaeologist Kostrzewski had turned Kossinna's *Siedlungsarchäologische Methode* against the inventor and claimed the Lausitzer and Przeworsk cultures as Slavonic (see Vana 1970:27–48). Other German archaeologists tried to support German territorial claims in Poland, Bohemia and the Soviet Union.

The intention was not that the Slavs were to be completely exterminated, as would the Jews and Gypsies, but that they were destined to be a subservient, subhuman population in the part of Eastern Europe that was to form the new German Lebensraum. Therefore, they could not be true 'Indo-Germans': 'Slavonic tribes, whose bodily characteristics and level of culture indicate that they are not the pure descendants of old Indo-Germanic tribes, but contain a strong admixture of foreign eastern [östlich] and Asiatic elements' (Hahne 1935:89). The supposed mixture of foreign, especially Asiatic (Hunnic or Awaric) 'blood' would, it was claimed, prevent any form of cultural or political independence for Slavonic tribes (e.g. Hahne 1934:37; Franz 1943:9). Any cultural achievements that did not fit into this picture were to be explained by postulating an admixture of 'Nordic Blood' (Vikings), or the beneficent influence of a Germanic 'sub-state'. Slavonic immigration into the West was described either as an infiltration, or the result of roving warlike Awaric hordes that had brought

their Slavonic slaves to the West (Radig 1936:63). All this demonstrated that the Slavs were an inferior people who had always been subservient to stronger races and would return to this state once again, once the conquest of the East was accomplished. In addition to such racist propaganda, some typochronological research on Slavonic remains existed that was comparatively free from value judgements, even if conducted by party members (e.g. Knorr 1937, 1938).

After the war, the main area of Slavonic settlement was in the territory of the former German Democratic Republic (GDR—ast Germany). There was no great interest in this field of research in the former Federal Republic of Germany (FRG—West Germany),² and even in the 1960s articles were published that denied any widespread Slavonic settlement in any part of Germany (see Fritze 1961 for a concise refutation). In the seventh edition of the *Deutsche Urgeschichte* published in 1951, Schwantes (1951:318), in the two pages dedicated to the Slavs, still described their culture as 'rather paltry', the finds in general as 'sparse', the grave goods 'uniform and of scant importance'.

The teachings of Nazi archaeology still lingered on in the public consciousness and, certainly enforced by the propaganda of the Cold War (Figure 10.1), Slavs were seen as belonging to the East, the Warsaw Pact countries and Communism. In school books, the 'German Mission in the East'—that is, the forcible conversion of Slavic and Baltic people and their subjugation under the rule of the Teutonic knights—was still presented in a favourable light. Only in the northeast of the FRG (Schleswig Holstein, Wendland) and in West Berlin were Slavonic remains excavated on a larger scale. The Slavs of Southern Germany (Gross 1991) received attention only in the late 1980s. Still, for the general public and even for most archaeologists 'Slavs in Germany' still meant 'Slavs in the GDR'.

In the GDR, Slavonic archaeology formed a very important part of the discipline. Excavations of Slavonic forts continued a tradition that derived from Schuchardt and work by Ebert and Unverzagt in the 1920s and 1930s (Unverzagt 1958:1). To correct the picture of Slavonic culture, distorted and manipulated as it had been by imperialist and Nazi propaganda was seen to be a task of top priority (Gramsch 1968; Böhme 1973:32). When archaeology became consolidated after the war, a task group working on the 'History and Culture of Slavonic Peoples in Germany' was founded as a part of the Historical Society of the GDR in 1959 (Herrmann 1976:8). The Second International Congress of Slavonic Archaeology in (East) Berlin in 1970 underlined the importance of this branch of archaeological research. Excavations of Slavonic fortresses, trade emporia and especially the compilation of a manual of Slavonic archaeology (Herrmann 1985) and a corpus of Slavonic finds from the territory of the GDR (Herrmann and Donat 1973) were used to increase the knowledge of Slavonic culture in general. The beginnings of feudal structures among the Slavonic tribes and their role in the formation of the German nation were the main issues perceived to require research (e.g. Herrmann 1973:133-4; Donat

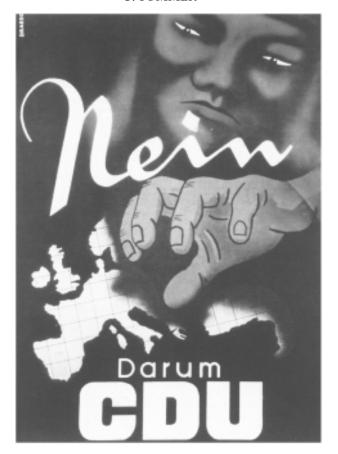


Figure 10.1 'Slavs in Germany' election propaganda from 1949

1981) (and continue to be so seen today, e.g. Schnoor 1993; Sächsisches Staatsministerium für Kultur 1992).

This focus on Slavonic archaeology was politically motivated (a resurgence of pan-Slavic ideas under Stalin, the idea of 'Slavonic brotherhood' in the Warsaw Pact countries) and only partially reflected academic or popular interest.

First we had to fulfil our obligation to set the history of the Western Slavonic tribes into the light they had a claim to according to the sources. The results of this research were published in numerous monographs, in a textbook and in the proceedings of the 2nd Congress of Slavonic Archaeology. Only then could the numerous facts of Germanic archaeology already in existence be extended.

(Krüger 1981:70)

In practice, however, historical overviews on the Slavs are often added as a kind of afterthought. This is the case even in school books, where history progresses from the Germanic tribes of the migration period to the Carolingian and Ottonic emperors of the Holy Roman Empire, and the (only) four pages devoted to Slavonic tribes are to be found under the general heading of the formation of the German nation in the Ottonic period and the exploits of Otto the Great (Bartmus *et al.* 1989). The message to be conveyed was that the Slavonic people of northeastern Germany had in fact possessed an historical impulse but that their way to nationhood had only been shortcut by the Imperial conquest. Thus, seen from the West, the Slavonic past and Slavonic archaeology seemed to play an important part in GDR ideology and historical consciousness. However, in the popular imagination, the idea of 'our Slavonic forebears' never really caught on.

Now, in unified Germany, Reichstein (1991:3), in the editorial of a popular archaeology magazine, claims a new 'ideology-free and politically unburdened research about the Slavs'. In this article, Reichstein refutes the claims of crypto and neo-fascist agitators who totally deny the existence of Slavonic tribes in Germany. In scientific circles, the ideological debate about the cultural development of the Slavs is now discussed under the guise of a chronological debate (e.g. Henning 1991).

THE OPEN AIR MUSEUM IN GROß RADEN

The open air museum in Groß Raden, Mecklenburg-Vorpommern, former GDR, exhibiting the reconstruction of a fortified Slavonic settlement with a sanctuary and timber-framed fort, was opened in 1987. It was not constructed as a government project, but owes its existence to the initiative of the Director of the local Ancient Monuments Commission and the Schwerin Museum of Prehistory, Professor E.Schuldt (Voß 1993:47). Schuldt had been conducting excavations there for twelve years until he retired, and the museum was a kind of monument to this work. Together with the early Medieval Palatium at Tilleda in Thuringia, it was the only archaeological open air museum in the GDR.³

After the unification of the FRG and the GDR, all former GDR institutions had to be assessed by a West German specialist in order to decide their future. As part of this process the Groß Raden Open Air Museum was detached from the Schwerin Museum of Prehistory of which it was a section, as it was judged to be of doubtful scientific value. All personnel were sacked. After great uncertainty about its future, a private association was formed for its administration, which operated with grants from the Ministry of Culture and Unemployment Schemes. Since January 1995, the museum has again been administered by the Government of Mecklenburg-Vorpommern. There have been some changes in the permanent exhibition since the unification and additional buildings in the open air area, but the general layout of the reconstruction remains unchanged.

Today, the Groß Raden Open Air Museum is faced with a number of different expectations. The majority of visitors use the site as a holiday retreat, just as they would an historic castle or a fair. It is difficult to judge how much historical information is really taken in. There is a certain GDR nostalgia, many former GDR citizens do not want anything to change, whereas some visitors from the West look for traces of 'Communist propaganda' (after unification there were claims that the whole museum was nothing more than Communist propaganda and should therefore be abolished (pers. comm., R. Voß 1992), and there are always those who claim that such a sophisticated settlement could never have been constructed by Slavs.

THE RECONSTRUCTION AT GROß RADEN: A CRITICAL APPRAISAL

I have outlined above the uneasy ideological status of Slavonic archaeology and I now discuss the influence this may have on future work with the reconstruction at Groß Raden. Most people in Germany would doubtlessly argue that only painstaking attention to archaeological detail provides a safe-guard against a false or one-sided picture of the past, especially in an area as ideologically sensitive as Slavonic archaeology.

But how 'genuine' can a reconstruction really be? Is a purist reconstruction, employing only features that have been attested archaeologically, really the answer? For example, no traces of plaster were found in the excavations at Groß Raden; therefore the walls of the reconstructed houses were constructed with only a rough coat of daub (Figure 10.2). Yet plaster is known from other Slavonic settlements of the period, sometimes even embellished with incised decoration (Herrmann 1985:279). So it may be that our houses may well be presenting a far too primitive and uncouth picture, of 'mudhuts', and thereby be reinforcing visitors' existing prejudices about Slavonic culture.

The walls of the reconstructed ninth-century temple, the centre of the settlement, are built of bare wooden planks, a number of which have been excavated. Yet the medieval chronicler Herbord describes the temple at Szczeczin, Poland as follows:

wonderfully and artfully embellished, as it had wood carvings on the outside and the inside, pictures of humans and animals that jutted out from the walls. Their peculiarities were portrayed so cleverly that they seemed to breathe and live. What I would call quite singular is that the colours of the outer images could not be erased or darkened by snow or rain.

(Prutz 1869:105)

Of course, we do not know whether the temple at Groß Raden was similarly adorned. But wherever a temple is described, its rich furnishings are mentioned:

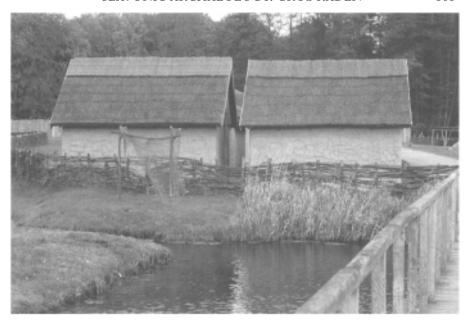


Figure 10.2 Reconstructed ninth-century wattle and daub houses at Groß Raden Open Air Museum

golden horns in the foundations, pictures and carvings on the outside, statues, rich gifts and spoils of war in the interior. So in all probability the temple of Groß Raden as it is now presented gives a picture that is far too sombre and simple. But how should we paint the exterior without a single pattern or picture being preserved? We have chosen to compromise, by painting some posts with patterns adopted from knife handles and miniature images of deities, but do we really have the right to transplant patterns from one context to the other? The temple (Figure 10.3) is a good example of a reconstruction that will be 'incorrect', no matter what approach is adopted.

If there are unavoidable problems with the reconstruction of the buildings, what about general impressions? Ten reconstructed houses—from a total of at least twenty-three original ones—stand in the middle of an extremely well kept lawn, the pride of the caretaker (Schuldt 1978:19). They derive from at least two distinct building phases. There have been no entymological or mollusc studies in Groß Raden or in any comparable Slavonic settlement. Yet, in view of the crowded conditions in conjunction with the swampy ground, the settlement must be presumed to have been very muddy, smelly and generally unpleasant (but see Courbin 1982). It would be possible to approximately reconstruct such conditions. The addition of fish offal, a number of lively pigs and a tannery might do wonders! However, would anyone, other than the sanitary police, visit the museum thereafter? Even at the Yorvik

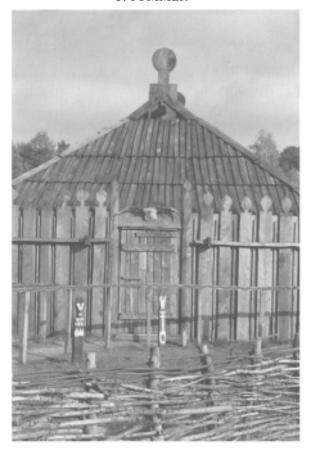


Figure 10.3 Ninth-century Slavonic temple

Viking centre, where artificial smells are used to further the 'authenticity' of the reconstruction, only careful traces are used (see Jones, Chapter 18). Furthermore, this might not be interpreted as typical medieval dirt but as typical Slavonic dirt and strengthen or even create racial prejudices. Today, the Groß Raden Open Air Museum is presented as an idyllic spot, surrounded by old beechwoods, in the middle of a scenic lake abounding with wildlife. For a 'correct' reconstruction, the beechwoods would have to go. As the construction of the timber-laced walls of the fort required approximately 800 metres of timber, let alone for defence reasons, the environs of Groß Raden would have been completely bare, covered with rough grazing (Jeschke and Lange 1987; Labes and Sommer 1995). However, we are not allowed to cut down the woods; nor would we want to, as the pleasant landscape is one of the museum's main attractions.



Figure 10.4 Head of a sacrificial horse over the entrance to the Groß Raden temple

As with most reconstructions, Groß Raden is based on the *pars pro toto* principle: ten houses represent the whole settlement, and so on. But does this really help the visitor to imagine the missing parts? A study of children's pictures of Groß Raden Museum shows that all the children had drawn the reconstructed houses and the concrete markers of the excavated houses. Not one of them had drawn the complete settlement. The reconstructions do not act as a basis for informed fantasies, but rather prevent them, by offering a seemingly complete, finished picture. The strangeness, the autarchy of the past (Veyne 1961) is effectively excluded. No matter how big and complete a reconstruction is, it still looks like a modern museum.

All reconstructions represent the fashions of the present when they were built (Ahrens 1990; Schmidt and Wolfram 1993), some people even claiming that they teach us more about the time of their construction than about the past. What is always lacking is distance, the feeling of difference, a sense of 'otherness', of dirt, the smell, the noise... Some limited attempts to address this issue have been made in Groß Raden, for example, a horse's head has been placed, in accordance with archaeological evidence (Schuldt 1976:28) over the entrance to the temple (Figure 10.4). On hot days it attracts a lot of flies, drips fat most gratifyingly and is a great favourite with the children. Yet imagine the public outcry if we had not defleshed it before placing it over the door (equally

archaeologically possible). And what is the reconstructor of the Slavonic temple of Arkona, Rugen or the fabulous Rethra to do, where human sacrifice is attested?

As they could not induce him to desert the cause of Christ, they hacked off his hands and feet and threw his body on the street. His head was cut off and the heathens set it on a pike as a sign of victory and sacrificed it to their god Redigost.

(von Bremen 1961:51)

THE RECONSTRUCTED PAST AS A FAKE?

In the face of all these problems, should open air museums be abandoned altogether? I have argued elsewhere (Sommer 1993) against all presentation of images of the past; all images are false. They are too easily consumed, uncritically accepted, believed in. Following the argument of a well-known German art critic (Kipphoff 1994): in order to criticize a book, you have to at least read it, but a picture is assessed in a single glance, without further perusal, simply taken in at face value (see also Moser 1992). Reconstructions are treated in the same way.

Now, having been curator of an open air museum, I have presented and invented images myself. Is this justified other than by the desire to retain a well-paid job? To answer this question, one has to consider the alternatives. In a scholarly discussion, it is not only possible, but indeed necessary for the sake of scientific honesty, to try to set aside all private fantasies and implicit assumptions transferred from daily experience that form our notions of what the past was 'really' like. Yet without the use of images, no presentation of the past is possible. There are no value-free means of presentation. Even, for example, a classical museum exhibit, a glass case filled with various pots, with labels saying 'pot, clay, height 12 cm, late second quarter of the third century' and the like, conveys a picture, presents a message. The message is: This is science!' It preserves the hegemony of those who are allowed to select the objects to be put into the glass cases, who put labels on objects and claim that they confer knowledge.

In such a case the choice of the experts cannot be criticized. The picture they create has no connection with the observer's daily experience. Perhaps the visitor can identify an object as a pot, put a name to it, but sometimes not even that. Visitors are not allowed to touch the finds, and both the glass case and the label create additional distance. In such a presentation the past is both commodified and fetishized, while at the same time it precludes any alternative discourse on the meaning of the objects (Shanks and Tilley 1987:68–99).

To make the past accessible, to help visitors to start a discourse of their own, we *have to* create images, albeit that they will always be false. The question we have to solve is how to make this obvious, and thereby empower visitors to

begin to question the images presented, perhaps to form alternative images based on the excavated facts. In this context, I find the possibilities offered, for example, by computer-aided 3D reconstructions very fascinating (see, e.g. Reilly 1992; Wood and Chapman 1992). It is now possible to create reconstructions that can easily be changed by the visitor who can play around with them, add or delete features and observe how changes in seemingly irrelevant details change the whole 'feel' of a building.

It is much more difficult to achieve the same results in a museum. Indeed, museums, especially open air museums may actually not be the best places to create a critical display of archaeology. The very physical presence of the reconstruction alone creates a heavy prejudice in favour of its acceptance as reality. Time does its work as well, by lending even technically deficient buildings an aura of their own, and if the environment seems to fit in as well, people start to talk of empathy and a locus without reflecting whose locus it might be.⁵

But physical presence—or 'materiality'—is one of the basic features of archaeological finds, in contrast to romance and fantasy, and this materiality was created by real, suffering, working people, a result of work, a discourse with the environment, both natural and social. Therefore, it must be part of our image as well. There are no easy solutions here. A lot more thought must be given to this question, and archaeologists should perhaps start to experiment (see Schmidt and Wolfram 1993; Stone 1994 for interesting suggestions).

Baudrillard (1978) describes how an object, people, political acts or daily life suffer a growing loss of reality in modern society. Everything can be replicated, simulated, subsumed into the mechanics of manipulation. Objects are isolated, duplicated, put into a new context or are recreated in a new context—what Baudrillard calls the moebius-spiral of artificiality (ibid.: 29), that is, a spiral closing in on itself. Reality is on the verge of disappearing, mechanical simulations of reality appear more real than their prototypes and are substituting for them. This might appear to be the usual postmodern play of probabilities and associations, but the problem is that the interplay between reality and simulation that were formerly based on a reflection, a creative and interpretative imitation, is lost, as the simulation takes the place of reality (Baudrillard 1978:9). So this moebius-spiral of artificiality cannot be stopped at the whim of the creator of a display, as Voß (1993:542) seems to suppose, but goes on and on.

Working in a museum, archaeologists cannot avoid taking part in this spiral. The better our tactics of visual representation, the more we change finds into simulations of themselves. Hyper-reality (Eco 1987:87; Sturm 1991:81), the complete substitution and takeover of reality by simulation, only works when the observer respects the frontiers set by the exhibits and does not look behind the scenes. We have to train the visitor to do just that. But how do we ourselves find the door to escape from a room full of mirrors?

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NOTES

- 1 They 'seeped' into the areas left empty by emigrating German tribes. This choice of words is, revealingly, still quite common today.
- 2 The first excavations of a Slavonic fort after the Second World War, in Alt-Lübeck, were conducted by a team of Polish archaeologists freed from a concentration camp under the auspices of the British military government to the displeasure of German colleagues (Neugehauer 1965).
- 3 There has recently been a spate of new open air museums, mostly intended as tourist attractions and built as part of unemployment schemes, but it is not expected that many will survive.
- 4 There are a number of archaeological problems with the way that the houses have been reconstructed (see Voß 1993).
- 5' Was ihr den Geist der Zeiten nennt...ist stets der Hefren eigner Geist... ' (Goethe, Faust).

REFERENCES

Ahrens, C. Wiederaufgebaute Vorzeit Archäologische Freilichtmuseen in Europa. Neumünster: Wachholtz.

Bartmus, K. und Autorenkollektiv 1989. Geschichte, Lehrbuch für Klasse 6. Berlin: Volk und Wissen.

Baudrillard, J. 1978. Agonie des Realen. Berlin: Merve.

Bohm, W. 1937. Die Vorgeschichte des Kreises Westprignitz. Leipzig: Kurt Kabisch.

Böhme, H.J. 1973. Grußadresse des Ministèrs für das Hoch und Fachschulwesen der deutschen demokratischen Republik. Preface in *Berichte über den 2. Internationalen Kongreß für Slawische Archäologie, Berlin 1970, Vol. 2.* Berlin: Akademie.

Courbin, A. 1982. Le miasme et la jonquille. L'odorat et l'imaginaire social XVIIIe-XIXe sièdes. Paris: Aubier Montaigne.

Donat, P. 1981. Aktuelle Aufgaben und Zielstellungen der Forschungen zur Geschichte der nordwestslawischen Stämme. In *Das historisch-kulturelle Erbe vorkapitalistischer Gesellschaftsformationen und seine zeitgenössische Bedeutung*, 75–91. Berlin: Akademie.

Eco, U. 1987. Über Gott und die Welt, Essays und Glossen. Munich: Hanser.

Franz, L. 1943. Falsche Slawengötter. Munich: Rudolf F. Rohrer.

Fritze, W. 1961. Slawomanie oder Germanomanie? Bemerkungen zu W Stellers neuer Lehre von der älteren Besiedlungsgeschichte Ostdeutschlands. *Jahrbuch für die Geschichte Ost-und Mitteldeutschlands* 9/10, 1–12.

Gramsch, B. 1968. Vorwort. In Germanen Slawen Deutsche: Forschungen zu ihrer Ethnogenese, B.Gramsch (ed.), 7–8. Berlin: Akademie.

Gross, U. 1991. 'Terra sclavorum' in Süddeutschland. Archäologie in Deutschland 2, 32–7.

Gummel, H. 1938. Forschungsgeschichte in Deutschland. Berlin: Walter de Gruyter & Co.

Hahne, H. 1934. Deutsche Vorzeit. Leipzig: Velhagen & Klasing.

- Hahne, H. 1935. Das vorgeschichtliche Europa: Kulturen, Völker und Rassen. Leipzig: Velhagen & Klasing.
- Hegel, G.W.F. 1961 [1837]. Vorlesungen über die Philososphie der Geschichte. Stuttgart: Reclam.
- Henning, J. 1991. Germanen-Slawen-Deutsche/Neue Untersuchungen zum frühgeschichtlichen Siedlungswesen östlich der Elbe. *Prähistorische Zeitschrift* 66, 119–36.
- Herder, J.G. 1995. [1784–1791] *Ideen zur Philosophie der Geschichte der Menschheit.* Bodenheim: Syndikat.
- Herrmann, J. 1973. Hauptaufgaben, Probleme und Ergebnisse der archäologischen Vorgeschichtsforschung in der DDR in den Jahren 1965–70. Berichte über den 2. Internationalen Kongreß für Slawische Archäologie, Berlin 1970, vol. 1, 135–59. Berlin: Akademie.
- Herrmann, J. 1976. Historisch-kulturelles Erbe vorkapitalistischer Gesellschaftsformationen in unserer Zeit. In Das historisch-kulturelle Erbe vorkapitalistischer Gesellschaftsformationen und seine Zeitgenössische Bedeutung, 7–22. Berlin: Akademie.
- Herrmann, J. 1985. Die Slawen in Deutschland: ein Handbuch. Berlin: Akademie.
- Herrmann, J. and P.Donat 1973. Corpus archäologischer Quellen zur Frühgeschichte auf dem Gebiet der Deutschen Demokratischen Republik (1–12 Jahrhundert). Berlin: Akademie.
- Jeschke, L. and E.Lange 1987. Zur Landschafts und Vegetationsgeschichte im Gebiet der Sternberger Seen im Nordwesten der DDR. *Flora* 179, 317–34.
- Kipphoff, P. 1994. Ein Nachtrag zum 'Bilderstreit': aus dem Rahmen gefallen. Zeit 24, 55.
- Knorr, H.A. 1937. *Die slawische Keramik zwischen Elbe und Oder.* Leipzig: Kabitzsch. Knorr, H.A. 1938. Die slawischen Messerscheidenbeschläge. *Mannus* 30, 479–545.
- Krüger, B. 1981. Methodische und theoretische Probleme germanischer Geschichtsforschung unter besonderer Berücksichtigung der Erberezeption. In Das historisch-kulturelle Erbe vorkapitalistischer Gesellschaftsformationen under seine Zeitgenössische Bedeutung, 61–74. Berlin: Akademie.
- Labes, S. and U.Sommer 1995. Wald und Mensch: Begleitheft zum Waldlehrpfad des Archäologischen Freilichtmuseums Groß Raden. Büzow: Gänsebrunnen.
- Labuda, G. 1969. The Slavs in nineteenth century German historiography. *Polish Western Affairs* 10, 199.
- Lisch, F. 1847. Die Graburnen der Wendenkirchhöfe. *Mecklenburger Jahrbücher* 12, 421–37.
- Maubach, P. 1994. Suche nach den Wurzeln. Prillwitzer Idole eine Geschichtsfalschung des 18. Jahrhunderts. In: *Ein Jahrtausend Mecklenburg und Vorpommern*, W.Karge, P.-J.Rakow and R.Wendt (eds), 191–5. Rostock: Hinstorff.
- Moschkau, R. 1918. Beziehungen zwischen Form und Technik des slawischen Wellenornamentes. *Mannus* 9, 196–215.
- Moser, S. 1992. The visual language of archaeology: a case study of the Neanderthals. *Antiquity* 66, 831–44.
- Näbe, M. 1918. Die Bodenstempel auf wendischen und frühdeutschen Gefäßen des 9.-14. nachchristlichen Jahrhunderts. *Mannus* 10, 71–8.
- Neugebauer, W. 1965. Der Burgwall Alt-Lübeck. Geschichte, Stand und Aufgaben der Forschung. Offa 21/22, 127–257.
- Prutz, H. 1869. Herbord, Leben des Bischofs Otto von Bamberg. Berlin.
- Radig, W. 1936. Sachsens Vorzeit. Eine Einführung in die Vorgeschichte des sächsischböhmischen Grenzraumes. Leipzig: Velhagen & Klasing.
- Reichstein, J. 1991. Slawenforschung ohne Ideologie. Archäologie in Deutschland 2, 3.

- Reilly, P. 1992. Three-dimensional modelling and primary archaeological data. In *Archaeology in the Information Age*. P.Reilly and S.Rahtz (eds), 147–73. London: Routledge.
- Sächsisches Staatsministerium für Kultur. 1992. *Lehrplan Mittelschule*, *Geschichte Klasse* 5–10. Dresden: Sächsisches Druck & Verlagshaus.
- Schmidt, M. and S.Wolfram 1993. Westdeutsche Museen—objektiv und belanglos? In *Macht der Vergangenheit—wer macht Vergangenheit?* S.Wolfram and U.Sommer (eds), 36–43. Wilkau-Haßlau: Beier & Beran.
- Schnoor, S. 1993. Vorläufige Rahmenrichtlinien Geschichte Kassenstufen 11–12. Schwerin: Kultusministerium.
- Schuchardt, C. 1939. Vorgeschichte von Deutschland. Munich and Berlin: R.Oldenbourg. Schuldt, E. 1976. Der altslawische Tempel von Groß Raden. Schwerin: Museum für Urund Frühgeschichte.
- Schuldt, E. 1978. Burg und Tempel von Groß Raden. Schwerin: Museum für Ur- und Frühgeschichte.
- Schwantes, G. 1951. [1907] Deutsche Urgeschichte. Stuttgart: Kosmos.
- Shanks, M. and C.Tilley 1987. Re-constructing Archaeology. Cambridge: Cambridge University Press.
- Smolla, G. 1991. Archäologie und Nationalbewußtsein. In Zwischen Walhall und Paradies. H.Anderlik (ed.), 11–15. Berlin: Deutsches historisches Museum.
- Sommer, U. 1993. Der ruhmreiche Kampf der Geschichte gegen die Zeit. In *Macht der Vergangenheit—wer macht Vergangenheit?* S.Wolfram and U.Sommer (eds), 13–18. Wilkau-Haßlau: Beier & Beran.
- Stone, P.G. 1994. The re-display of the Alexander Keiller Museum, Avebury and the National Curriculum in England. In *The Presented Past: heritage, museums and education*. P.G.Stone and B.L.Molyneaux (eds), 190–205. London: Routledge.
- Sturm, E. 1991. Konservierte Welt, Museum und Musealisierung. Berlin: Reimer.
- Unverzagt, W. 1958. 50 Jahre methodische Ausgrabungen an vor und frühgeschichtlichen Burgen Nordostdeutschlands. *Ausgrabungen und Funde* 3, 1.
- Vana, Z. 1970. Einführung in die Frühgeschichte der Slawen. Neumünster: Wachholtz Verlag.
- Veyne, P. 1961. L'inventaire des differences. Paris: Seuil.
- Virchow, R. 1872. Ein Gräberfeld aus Zaborowo (Prov. Posen). Verhandlungen der Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte 4, 47–55.
- Virchow R. 1878. Slavische Funde in den östlichen Teilen von Deutschland. Correspondenz-Blatt der Gesellschaft für Anthropologie, Ethnologie und Urgeschichte 9, 128-37.
- Virchow, R. 1900. Über das Auftreten der Slawen in Deutschland. CorrespondenzBlatt der Gesellschaft für Anthropologie, Ethnologie und Urgeschichte 31, 109–13.
- Voß, R. 1993. Realitätsverlust in der Darstellung archäologischer Erkenntnisse im Freilichtmuseum (Fallbeispiel Groß Raden, Mecklenburg). In *Macht der Vergangenheit—wer macht Vergangenheit?* S.Wolfram and U.Sommer (eds), 45–52. WilkauHaßlau: Beier & Beran.
- von Bremen, A. 1961. Hamburgische Kirchengeschichte. In Quellen des 9 und 10. Jahrhunderts zur Geschichte der hamburgischen Kirche unter des Reiches. 160–499. Berlin: Akademie.
- Wippermann, W. 1983. Das Slawenbild der Deutschen im 19. und 20. Jahrhundert. In: Slawen und Deutsche zwischen Elbe und Oder. Vor 1000 Jahren: der Slawenaufstand von 983., 69–81. Museum für Vor—und Frühgeschichte Berlin (ed.). Berlin: Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte.
- Wood, J. and G. Chapman 1992. Three dimensional computer visualisation of historic buildings—with particular reference to reconstruction modelling. In *Archaeology in the Information Age*. P.Reilly and S.Rahtz (eds), 123–46. London: Routledge.

11 The reconstruction of sites in the archaeological theme park ARCHEON in The Netherlands¹

GERARD E IJZEREEF

INTRODUCTION

In April 1994 the archaeological theme park ARCHEON opened its gates in the municipality of Alphen aan den Rijn, the Netherlands. As a former employee of the State Service for Archaeological Research in 1981 I had become involved in the plans for building such a park in 1981. Between March 1990 and April 1994 I was the Archaeological Director of this park. At present I am playing an advisory role to the Board of ARCHEON.

ARCHEON employs c. 35 permanent staff, of whom c. 12 are fully trained archaeologists or historians. These permanent staff are joined by a further 200 or more seasonal staff hired from March to November. The main group of c. 100 seasonal staff is employed as so-called 'archaeotolken'—or 'interpreters of the past'. About 50 are employed in the catering division.

BACKGROUND

The Netherlands is one of the most overpopulated countries in the world with a population of over 400 people per km². As a result there has always been great pressure on building sites and consequently many old buildings have been replaced by new buildings and industrial areas. Thus there are hardly any archaeological monuments left for the general public to see or visit. The exceptions to this are a few megalithic tombs and neolithic and Bronze Age barrows. Hardly anything can be seen of the Roman or early medieval periods except in museums. However, excavations in The Netherlands have demonstrated over the last century that there are extensive below-ground archaeological remains of settlements from many periods. It was for these reasons that it was decided to show the archaeology of The Netherlands in a single, large setting.

In 1978 the Foundation for Experimental and Educational Archaeology was founded. Its aim was to build a national open air museum for archaeology through the building of one-to-one reconstructions of mainly pre-historic

settlements. When it was finally decided to locate the park in Alphen aan den Rijn in March 1990 the Foundation of ARCHEON became the leading developer and it was decided to also reconstruct buildings from the Roman and medieval periods. From 1993 onwards, schoolchildren and other groups were given the opportunity to live in a number of the reconstructions and a centre of experimental archaeology was added to the project.

It was decided to build the park in Alphen aan den Rijn for a number of reasons. First, and most important, because of its location in the heart of Holland; within 35 kilometres of the site are the cities of Amsterdam, Rotterdam, The Hague and Utrecht. Some 7 million people live within this area. Second, the area is visited by more than 2 million tourists each year. Third, it was possible to obtain 60 hectares (250 acres) of land on which to build the park. Fourth, and very important, there was a very strong local interest in especially the Roman and medieval history of Alphen (prehistoric remains are very scarce in the area).

The total cost of creating ARCHEON was 70 million Dutch guilders, or 34 million US dollars. It was financed mainly by a large Dutch bank, by grants from the municipality, the province of South Holland, the Ministry of Public Affairs and by sponsoring donations. The government supported the project financially because of the employment and tourism potential of the park and because of a real belief in the unique new concept and theme of this project.

In order to be financially successful 600,000 visitors were needed in the first year. Unfortunately this number was not achieved and although almost 500,000 visitors came during the first year—in itself, in fact, a great success—the target was not met and so steps were taken for the park to run more cheaply. The target figure for the second year (500,000) was again not achieved (350,000 visitors). Again, additional activities have been carried out to reach a financial break-even/profit position. The first two years of operating at a loss emphasized the need for a stronger marketing operation (supported by sufficient finance) to put this new product, built in a new area, securely on the tourist market.

THE ARCHAEOLOGICAL THEME PARK

In addition to the reconstructions, ARCHEON contains a parking area for 1500 cars and seventy buses, an entrance building of 40,000 cubic metres, an educational section with overnight facilities and a centre for experimental archaeology.

The time machine

In order to prepare the twentieth-century visitor for their 'time travel', the Dutch pavilion from Expo in Spain, held in Seville in 1992, was acquired. It is used as the entrance building to the whole site and a spectacular time machine has been installed inside. Visitors can take a journey through time, from the

period of the beginning of the planet Earth to the evolution of the human species. On the fourth floor, 15 m above the park, a special area is reserved for temporary exhibitions, and children can test their knowledge on interactive computers.

Access to the park

Most visitors walk between the reconstructions; however, the park can also be explored in a more limited way by boat or bus. These facilities were included to enable disabled access to the park as many of the smaller paths are unsuitable for wheelchairs and a decision was taken not to lay asphalt roads as they would destroy any feeling of 'authenticity'.

THE ARCHAEOLOGICAL EVIDENCE

Some 60 hectares of land have been transformed into a journey through time starting in a mesolithic setting of hunters and gatherers, through the Roman period and ending in AD 1350 with a monastery of the Franciscan Minor Friars at Dordrecht.

Prehistory

The representation of prehistory in ARCHEON focuses on several settlement sites, with varying landscapes, megalithic monuments and water. Starting in the Mesolithic period, visitors can see a temporary hunting camp on the border of a lake based on the site of Bergumermeer (Figure 11.1) (Newell 1973). Hunter—gatherers build dug-out canoes, their clothes made of deer skins and their houses—based on Dutch excavation plans—resemble those of some modern African settlements. The first farmers in The Netherlands came from the south-eastern areas of Europe around 5400 BC (Bakels 1978). The so-called Bandceramic settlers made very large family houses up to 35 m in length and they imported livestock, domestic grains, pottery, ceramics, and stone axes and adzes into the Low Countries. Their settlements were found in the south of the country located solely on very fertile löss soils. One of these settlements is reconstructed at ARCHEON. The palisade surrounding the settlement was excavated in nearby Darion in Belgium (Cahen *et al* 1987).

Other neolithic sites in ARCHEON concentrate on the Funnel Beaker (Bakker 1979) and Vlaardingen cultures (van Regteren Altena *et al* 1962–63). A few megalithic burial mounds have also been reconstructed. One is open to the public, one is being built and visitors can join in the building process, and a third has been reconstructed as a ruin. A Bronze Age house was built in 1996.



Figure 11.1 The reconstructed mesolithic village of Bergumermeer

The Roman period

The Roman period concentrates on an imaginary town called 'Trajectum ad Rhenum' with the house of the local potter, a taverna, a bathhouse, a temple, a forum, and an amphitheatre. Evidence from two Roman fortresses and a Roman harbour found in the municipality of Alphen aan den Rijn has been used alongside the evidence for a bathhouse from Heerlen, whose foundations can still be seen in the Thermen-museum.

Six Roman ships were excavated in the village of Zwammerdam between 1972 and 1974 (Haalebos 1977; de Weerd 1978, 1988). A local foundation collected over 200,000 Dutch guilders (98,000 US dollars) for the rescue excavation of these ships which are famous in Western Europe but, unfortunately, the rescue excavation did not result in their long-term conservation. At the moment one of the ships is displayed in the ships museum of Ketelhaven and one is visible (partly reconstructed) in the Maritime Museum in Rotterdam. The largest ship measured 35 m, but we chose to reconstruct one measuring 20 m (Figure 11.2).

The medieval period

The medieval period concentrates on a small town called 'Gravendam'. It shows a typical Dutch village from the late medieval period (*c*. AD 1350) in the Low Countries. Houses from Amsterdam, Utrecht, Edam, Delft, Rotterdam, as well as one from Antwerp have been reconstructed. Inside all the houses are fully furnished, and fourteenth-century handicrafts are demonstrated (Figure 11.3).



Figure 11.2 The reconstructed Zwammerdam boat



Figure 11.3 Medieval shoemaker in the town of Gravendam

EDUCATION

In April 1993 the Education Centre started its activities. Schoolchildren have been actively taught in this part of the park, and initial results suggest that this area will be very successful. The Centre operates all year and there are four fully qualified staff in the department. Continuous evaluation with questionnaires for schools and teachers is carried out. It is ARCHEON's philosophy that by learning about the past in an active, 'hands-on' way, young children will begin to value the preservation of the past. It is only because of lack of education in this field in secondary schools that the present generation of adults has limited understanding of archaeology and of the need to preserve the past.

ARCHAEOLOGY AND RECONSTRUCTION

ARCHEON aims to introduce its visitors to evidence of the past and to encourage in them a belief in the necessity for preservation of archaeological evidence. A host of problems had to be dealt with in order to reconstruct the houses, landscapes, tools and clothes of the various cultures that succeeded each other from the Palaeolithic to the medieval period. ARCHEON presents daily life in the past through reconstructions and with the help of craftsmen, builders and actors in authentic costumes and attempts to make its reconstructions of the past as authentic as possible. For example, with respect to prehistoric periods, evidence of animal species hunted, weaving or spinning equipment, as well as the scanty remains of textiles, were used in the reconstruction of clothes worn at the site. For Roman and medieval costumes such evidence has been supplemented by reference to contemporary documentary and two- and three-dimensional art.

The construction of the park started in 1991 and the former low-lying land with meadows and small ditches was transformed into its present shape. In the space of six months more than 400,000 cubic metres of sand and other soils were introduced to enable a reconstructed landscape to be created for the three periods. ARCHEON grows its own crops and a number of different types of animals are kept on site to supplement the reconstructions.

The buildings were reconstructed by a team of archaeologists and building historians. As noted above, the reconstructions have not been based on the remains of a single local excavation, but rather examples from all over the country were used to create ARCHEON. Every reconstruction in the park is based on a specific plan of an excavation. For example, in the plan of a native Roman farmhouse from Rijswijk the specific proportions of Roman measurements have been discovered, which enabled us to infer the proportions and dimensions for the third dimension, as mentioned by the Roman author Vitruvius (Figure 11.4). With this archaeological framework in mind, ideas and hypotheses are tested during the reconstruction of buildings, burial



Figure 11.4 Rijswijk: a reconstructed Roman farm

structures, boats, carts and when imitating former processes, such as the smelting of metals, weaving and the reconstruction of pottery from various archaeological periods.

While the proper materials were used throughout for the construction of the buildings in the prehistoric area, as well as in most of the medieval buildings, the building of the park has not always been done with 100 per cent 'authentic' techniques or materials. For example, the 'Bandceramic' houses were initially built using wood-cutting and wood-working techniques only using stone axes and adzes. However, when data on time management using such techniques had been acquired, heavier modern equipment was also used to reduce construction time. Again, the fully operational Roman bath (reconstructed after the Thermae of Heerlen, in the Province of Limburg) has a hidden, fully modern heating installation. For reasons of safety, modern hygiene standards and so on, the walls consist of modern bricks, but everything that can be seen looks as authentic as possible (plaster, wall-paintings, roof tiles, doors and windows). Visitors to the Thermae can actually take a Roman bath! The Roman inn, based on excavations in Nijmegen, is being used as a Roman restaurant, where 'Roman' food and drink can be obtained, prepared from recipes referred to by the Roman writer Apicius.

We have also tried to place each period reconstruction in a suitable setting, thus, for example, truck-loads of loss were brought to the park to create an 'authentic' Bandceramic environment. It will, however, take several decades to recreate the proper sub-Atlantic forest that should surround the buildings. The

Roman ship from Zwammerdam was built in the park by carpenters who obtained their skills in ship building on the reconstruction of the Dutch East Indian replica of the *Batavia* in Lelystad.

From the beginning it had been agreed to show the public not only static reconstructions but living interpreters in authentic clothing. Thus, on a daily basis over fifty 'archaeotolken' are employed in the park. The 'archaeotolken' do not pretend to be living in the past but rather serve as interpreters for visitors by speaking to them in modern language explaining the archaeological basis for the reconstructed houses, crafts and costumes.

We have chosen not to present authentic archaeological finds or museum showcases and have only used replicas in order for staff and visitors to be able to hold and touch them. We do not have lengthy text signs but present the whole setting as originally as possible relying on the 'archaeotolken' to interpret the park for visitors.

THE FIRST RESULTS

A number of things have been learnt from the short time ARCHEON has been open:

- Visitors to the park vary enormously. They range from people with a scientific or university education to people with very little formal education. In general, visitors like the park very much and tell us that they will come back: the same year (30 per cent), the next year (35 per cent) or within a few years (35 per cent). Word of mouth recommendation is a very important factor for the continuing success of the park.
- Many people do not know the difference between archaeology and geology: many think that archaeologists excavate dinosaurs as well as the remains of the human past. Education in this area will take much more communication, signs and leaflets than we have at the moment.
- In the first year we had more foreign visitors than expected, and we therefore need to increase the number of signs and leaflets in other languages.

Because our presentation of the past is by means of reconstructions and living history, visitors do not tend to experience our park as 'a result of archaeological survey' but more like a theme park or as a fun park. We hope that they have learnt something when they reach home, but we cannot be sure of this.

The park is a private enterprise, with a Foundation as the only share-holder. It is imagined that 10 per cent of the population forms the long-term basis of our visitors. With a population of 15 million, it is estimated that about 1.5 million will attend the park on a regular basis in the future. If they do so on an average every five years, the park needs 100,000 to 200,000 foreign visitors

each year. Besides that, new and spectacular reconstructions or additions will have to be made each year, in order to maintain the same level of attraction. This has to be done from our own cash-flow, as there are no grants from public offices to be expected in the future. This means hard work and significant money for marketing and public relations.

CONCLUSION

Building at ARCHEON will never be finished, because the story of the past will never be finished. Since we base our work on archaeological research, there will always be new material and new ideas. For example, we have recently added two so-called solar circles, which have been excavated in The Netherlands. We hope that the park encourages visitors of all ages to develop an interest in the past and in the preservation of the physical remains of that past.

NOTE

1 When this paper was discussed at WAC-3 the author had recently resigned as general manager at ARCHEON. The theme park struggled to survive over the next two years and was finally declared bankrupt in October 1996. The owner, ABN-AMRO Bank, decided to sell 35 of the original 60 hectares of the theme park for housing development. The rest of the land has been turned into a public park with 6 hectares (the areas originally set aside for the Roman and medieval displays) remaining as land for an archaeological theme park. This land was sold to a new consortium that includes the present author. The new, scaled-down, park opened successfully between May and October 1997. During the winter of 1997/98 the original entrance building was demolished and most of the prehistoric houses were moved from their original locations to a site within the new theme park. ARCHEON opened again in April 1998 for its fifth season.

REFERENCES

- Bakels, C.C. 1978. Four Linearbandkeramik Settlements and their Environment: A palaeo-ecological study of Sittard, Stein, Elsloo and Hienheim. Leiden: Analecta Praehistorica Leidensia.
- Bakker, J.A. 1979. The TRB West Group: Studies in the chronology and geography of the makers of the Hunebeds and Tiefstich pottery. Amsterdam: Cingula V.
- Cahen, D., J.P.Caspar, F.Gosselin and A.Hauzeur 1987. Le village rubané fortifié de Darion, province de Liège, *Archäologisches Korrepondenzblatt* 17, 59–69.
- de Weerd, M.D. 1978. Ships of the Roman period at Zwammerdam/Nigrum Pullum, Germania Inferior. CBA Research Report 24.
- de Weerd, M.D. 1988. Schepen voor Zwammerdam. Amsterdam: University of Amsterdam.
- Haalebos, J.K. 1977. Nigrum Pullum. Ein Auxiliar Kastell am Niedergermanischen Limes. Amsterdam: Cingula III.

- Newell, R.R. 1973. The post-glacial adaptations of the indigenous populations of the Northwest European Plain. In *The Mesolithic in Europe*, S.K.Kozlowski (ed.), 399–440. Warsaw.
- van Regteren Altena, J.F., W.Glasberger and W.Groenman van Waateringe 1962–63. The Vlaardingen Culture (I-V). *Helinium* 2–3.

12 Pembrokeshire's pasts. Natives, invaders and Welsh archaeology: the Castell Henllys experience

HAROLD MYTUM

INTRODUCTION

Pembrokeshire can be seen as a microcosm of the whole of Wales both in terms of its historical development and range of archaeological remains available for display and educational purposes. Many impressive monuments survive throughout Wales, but most relate to periods of external domination by the Romans, Normans and later English lords. Forts, castles and abbeys are thus not always appropriate in an exploration of native culture and its development. It is in this light that the excavations, reconstructions and public displays at the native Iron Age inland promontory fort of Castell Henllys can be seen to play a particularly important role.

Castell Henllys is typical of many sites in the region, and is broadly similar to other Iron Age forts found throughout Wales and indeed Britain. What makes it an unusual site is not its remote, prehistoric past, but rather its recent past and present context. Castell Henllys has become one of the most intensively studied Iron Age forts in Britain (Mytum 1991a), and also is the one where more effort has been put into displaying an Iron Age settlement to the public than any other. At first the site was developed by a private individual, who gave the site and its interpretation his own personal flavour and emphasized the presentational/tourist aspects of site display. Subsequently the site was purchased and is now managed by the Pembrokeshire Coast National Park with a rather different ethos and much greater emphasis on educational aims. Under both regimes, reconstruction of buildings and other features was undertaken and these included elements that were of an experimental nature (Gilchrist and Mytum 1986; Mytum 1986, 1991b).

THE IMMATURE APPROACH: THE FOSTER ERA

Castell Henllys was purchased in 1980 by Hugh Foster, an entrepreneurial accountant from southern England. A founder of the successful tourist attraction, the London Dungeon, he had sold out his share and was looking

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for a new, challenging investment. Having failed to negotiate the rights to an Asterix theme site, he decided that perhaps the real thing could be as exciting as fiction, and so he became obsessed with developing an Iron Age site as a tourist attraction. He had examined sites in various parts of Britain, but had found that they were too expensive, too large, too difficult of access or had rights of way over them, thus removing any chance of charging admission to visitors. Castell Henllys lay in a tourist area close to a main road, was of manageable size, and had land for car parks, picnic sites and other small-scale attractions.

Like most well-preserved prehistoric settlements, Castell Henllys was a scheduled ancient monument, and so protected from unlicensed disturbance of any kind. After consultation with Cadw, the body responsible for giving scheduled monument consent in Wales, I was approached to carry out such excavations as might prove necessary on the site.

The first season of excavations at Castell Henllys was funded by Hugh Foster, and subsequent seasons were partially supported by him. The research aims were simply to evaluate the extent and nature of any Iron Age remains, as the site, when last described in detail (RCAHMW 1925:259), was thought to be unfinished and therefore potentially largely barren. It was quickly apparent from trial trenches that the site had in fact had a long and complex sequence of occupation, and that structural remains survived in the form of post holes, wall trenches and gullies. With open area excavation, complete plans were recovered which in the case of three roundhouse dwellings (e.g. Figure 12.1) and one four-post granary structure, have led to reconstruction on the exact sites of the original buildings.

Archaeological evidence, combined with principles of mechanics and parallels with other timber buildings both from experimental archaeology and ethnography allowed reasoned inferences to be drawn on the form of the original buildings. Foster was happy to use this archaeologically derived information in the reconstruction of the roundhouses, and indeed aspects of the work have produced useful experimental data (Mytum 1986). The roundhouses provided enclosed spaces, the internal details of which could not be confirmed by archaeology. Moreover, other clusters of post holes, which represented some form of less well-defined structures, were also not amenable to reasoned inference. Nevertheless, Foster wished to construct buildings on these sites, and built a rectangular 'smithy' on one and a sub-rectangular 'goat hut' on the other. If archaeology could provide the data that he wanted, Foster was happy to use such information, but if no interpretation could be offered through archaeology, Foster would look to other sources of information and opinion.

The emphasis of site interpretation during the Foster era of site management was to present dramatic facets of prehistoric life. Well aware of the Butser project and its emphasis on agriculture and domestic stability, Foster laid greater stress on the mystical and military. A spring on the north-western slopes of the



Figure 12.1 Interior of roundhouse 1, with central hearth, bread oven and loom in the background. One of Foster's notices can be seen on the bench next to the loom

promontory allowed the 'religious' aspects of water in Celtic religion to be discussed in a small display panel. Other religious elements included a mystic maze of quartz blocks laid out in a spiral on the site, and the placing of a replica human skull in one of the roundhouses. Military life was stressed through display panels on the site's defences, replica weapons on display in the roundhouses, and through the owner's own Iron Age outfit of both clothing and artefacts which he would wear on site for special occasions (Figure 12.2).

While I attempted to maintain some semblance of authenticity based on archaeological and historical material, this met with limited success, though a short booklet was produced which gave background to the period and the site (Mytum 1988), and this was sold through the site shop. Foster saw archaeology as but one way of reaching the past, and a slow and at times frustrating one at

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Figure 12.2 Hugh Foster in costume and visitors outside the roundhouse

that (he only managed to participate in the excavation for about one half hour before his patience ran out). Foster was eclectic in his sources of information, reading a wide range of books from the most academic to esoteric. He also was a great collector of snippets of information, whether from ethnography, folk lore or history.

Several of the people Foster employed to work on collecting reeds, building the roundhouses, maintaining the site and tending the crops were from self-sufficient alternative communities, with interests in mystic religions, traditional agricultural methods and other cultures. Discussions with them provided further information of unknown origin which could be incorporated into his images of the past. Such data influenced, for example, the interior layout of the roundhouses (for example, the position of beds in the houses), and the way in which crops were planted (for example, sown at night at a full moon).

All these stimuli fuelled Foster's imagination and was most valuable in the creation of images that could go beyond what archaeology can in normal circumstances tell us. He, like most of the general public, came to the past with questions concerning everyday life which archaeology cannot answer. Moreover, there was a curiosity and desire to compare then and now, not constrained in the sort of questions to ask by the nature of the archaeological record and the types of deductions that professional archaeologists make from the evidence.

Numerous small, cheaply produced notices were placed along the trails round the site, and these offered snippets of information of all kinds, mainly about Foster's own view of the Iron Age, modified and approved by myself, but also concerning the ecology and recent history of the site; some signs near the shop, away from the site, considered New Age astrology. New notices could be rapidly produced to include some new information, whether derived from the archaeological excavations or from discussion with visitors. The route round the site was circuitous, partly to ensure that the public did not have to walk up particularly steep gradients, but also to incorporate various interesting features, whether archaeological, historical or ecological (e.g. Figure 12.3). The archaeological excavations, too, were a major attraction during the tourist season, and the route passed by as much of the work as possible (Mytum 1985).

The success of the Foster approach in terms of enthusing visitors was the numbers who themselves engaged in discussions with the owner, often as he sat next to the fire in one of the roundhouses, or as he carried out some activity such as puddling clay or cleaning a sheepskin. Reminiscences of life in other parts of the world were often offered by the public, for example, comparing the Iron Age reconstructed houses with those in Africa or North America. This was not in a structured way, but an interactive exploration of the present and past. It was not constrained by academic convention, fuelled at times by half-remembered facts, but a lively discourse which allowed the visitor to participate in the creation of their own visions of the past. Foster



Figure 12.3 View of the fort interior, showing roundhouse 3 under excavation, and roundhouses 1 and 2 reconstructed. (Note the visitors route along the spoil heap to the right; a man is reading a sign describing the excavations)

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was happy to have a vast vista of different images available, from which he or others could pick and choose. Some might be contradictory, others clearly impossible, but that was for the consumer to decide.

While there was much to commend this approach to archaeological interpretation, the problem was that often the pasts that were suggested were not consistent with the evidence available, either specifically from Castell Henllys, or in a wider sense from Iron Age and Celtic societies. Foster was not trained to use archaeological, historical or ethnographic material and so he was unable to develop models which were consistent with the evidence that was available, or which challenged in a coherent way interpretations already made. The fluidity and flexibility that made his expositions and interactions with the public so productive and enjoyable as an experience visiting Castell Henllys were at the same time a major stumbling block to effectively challenging accepted wisdom and providing coherent alternative pasts.

There was one other major obstacle to effective recreation of Foster's images of the past during his management of the site. This was the financial constraints under which the site was run. While in a tourist area, the numbers of visitors were relatively low (up to c. 10,000 per annum), and the season was a short one during the summer. It was therefore not possible to raise enough income from the visitors to carry out the necessary capital works desired. These included provision of better access routes, signs, display areas, and further reconstructions. Foster was determined to maintain the potential for making a profit from the business; for example, one of the goats, Sydney, was a celebrity on site, and tourists could buy souvenirs such as wooden spoons, coasters and key ring fobs with him on. Other similar souvenirs featured Foster in costume, the roundhouses, and the excavations. Foster was simply not prepared to work on a non-profitmaking basis and thus be eligible for various forms of grants for capital work and employment of staff on various training schemes. Some grants might have been available if the site could have been worked all year, but such was the economic state of both the Castell Henllys enterprise and Foster's own finances he had to work from Maidenhead as an accountant for most of the year to provide an income for himself and his family, and to have a subsidy or cash float for the subsequent Castell Henllys season—that this was not possible.

The lack of any presence through the year made some forms of maintenance difficult, and prevented effective exploitation of the educational potential of the site with the use of the resources by schools. Castell Henllys was perceived by Foster, myself, the local population and the visitors as a seasonal tourist attraction, but one of growing significance in the region.

The end of an era

In 1991, Hugh Foster died from a heart attack, and Castell Henllys was put up for sale. It attracted some media attention, even at a national level, but there was no immediate sale. There was some concern within the Welsh archaeological community that the site should not fall into the hands of anyone unsympathetic to the archaeological and cultural value of the site, but Cadw were not themselves willing to take on responsibility for Castell Henllys. The author was still continuing excavations on site and with the local archaeological professionals, and we were also concerned that all the research and reconstruction work achieved so far should not be jeopardized. Moreover, the local population were alarmed that their past could be appropriated by a new owner and the site returned to farmland or turned into an unsympathetic theme park; any visit to a pub or shop at this time led to a concerned discussion of the site's fate. Local interest groups and interested individuals lobbied their local politicians vehemently, and they were persuaded to argue for the purchase of the site by the local authority, to be owned and managed by the Pembrokeshire Coast National Park.

While relatively few of the locals ever visited the site when it was open, they were clearly strongly supportive of the venture, and many went round it when the site was closed and Foster was not in residence. The excavations were revealing *their* past, and the reconstructions and displays portrayed that past to visitors to the area. Of course the site brought in people who also then spent money elsewhere, and so there was an economic element in the concern over possible closure of the site, but the cultural identity was most definitely the dominant motive. The Celtic element of the archaeology was undoubtedly a major factor in the empathy displayed.

The Welsh have long been dominated politically and culturally by their English neighbours, and have suffered considerable discrimination with regard to their language; this can even be seen archaeologically in the use of language on gravestones in the area (Mytum 1994). There is now a new vibrance in Welsh indigenous culture, however, partially brought about by the wider use of Welsh in schools, and by some Welsh mass media being in the native language. In this context of rising cultural identity, a site concerned with a Celtic community owing nothing to foreign stimulus or invasion was particularly attractive.

The Celtic factor was also an important one in the formation of professional archaeological opinion. Within Wales no Iron Age sites have been displayed to visitors, though a significant number lie on public footpaths and rights of way. Cadw has not one Iron Age hillfort or farmstead within its care, though it has several Roman forts and towns, and numerous medieval castles and abbeys, almost all built by the invading Normans. Within the national Welsh context, therefore, Castell Henllys was an opportunity to begin to redress an imbalance in presentational opportunities, and build on the achievements won under the Foster regime.

THE MATURE APPROACH: THE NATIONAL PARK ERA

The National Park acquired Castell Henllys under political pressure from local politicians, and it became a valuable visible commitment to north

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Pembrokeshire, the Welsh-speaking part, which otherwise was quite suspicious of the National Park based in the English-speaking south Pembrokeshire town of Haverfordwest. For the first summer the site continued to run much as it had before. Even during the following year the changes were slight, but during that time some policy formulation began, and financial allocations were built into the annual budgets. By the third year, medium-term planning was well under way, helped by injections of British government funds to compensate the area for the loss of jobs caused by military cutbacks.

While the summer tourist trade was still perceived as an important element and one which helped to stimulate the wider local economy, the year-round use of the site for educational purposes was seen as the major development which the Park could bring. Whereas Foster had lived away from the area for much of the year, the Park was now a continual presence, further emphasized by the employment of a full-time manager who lived above the shop next to the site. The permanence of display is also exemplified through the carefully designed display panels placed around the site, though not in the area of reconstruction, to avoid detracting from the ambience there. Combining bilingual (Welsh and English) text and a range of line drawings, these panels are far more professional in both presentation and background research than the Foster notices. They, and the self-guided trail leaflet, are informative and authoritative. However, by their very nature they tend to dominate: opinionforming rather than encouraging creativity on the part of the visitor. While entertaining, these display panels are more informative and educational than challenging and demanding a response. Likewise, those guides employed by the National Park to work in the shop and to be present on the Iron Age fort itself act as foci for questions, rather than catalysts for debate. The guides are given a brief training, and read a few basic texts on the Celts and the Iron Age, but do not have great expertise; however, they have certain basic themes which they are expected to espouse. This is perhaps inevitable within an institutional framework, and while spontaneity is lost, there is the advantage of uniformity of approach, consistency of information, and the public leaving with a more coherent view of the Iron Age.

At the same time that the National Park began to consider the possible educational uses of the Castell Henllys site, the National Curriculum for England and Wales was produced. Although this has undergone several significant changes, the most relevant part has remained constant for Wales, and has included within History a part specifically to cater for the Celtic origins of the Welsh people. This was an innovation which reflects the developing sense of national identity within Wales, and which further ensures its development by being expounded to all primary schoolchildren in the Principality. For the Iron Age, three themes were specified for children of between seven and eleven years, within Key Stage 2, Study Unit 2 (Welsh Office 1991, 21):

- tribes, hillforts and chieftains in England and Wales;
- farming and daily life;
- Celtic religion: the Druid, myths and legends.

The environment and archaeological context of Castell Henllys were instantly of great relevance to a large number of schools in the region, not only for these elements of the curriculum but also many others. This has provided a focus for the development of both physical structures and educational materials. A bilingual education pack, with video, teachers' notes and worksheets, has been produced (DCCED 1993). These link closely to History Study Units within the National Curriculum. The pack also emphasizes many links with Geography, with suggestions for using the site for projects within the Science, Mathematics, Language, Design and Technology, Information Technology, Religious Education, Art, Music, and Physical Education curricula.

While it may seem fortuitous that Castell Henllys was saved from falling into possibly unsympathetic private hands by local political pressure and that the National Curriculum syllabus should contain a unit on the Celts, this is not the case. Both are the result of the increasing power of the Welsh lobby, both with regard to culture and language. This can be seen in a range of archaeological initiatives throughout Wales. Almost all sites managed by Cadw, National Parks, local authorities or in private hands have bilingual notices and displays, and either bilingual or separately produced guides in each language, though most relate to external domination. However, Cadw is attempting to redress some of the imbalance in the types of castle open to the public. Dolforwyn, built by the Welsh though later taken by the English, is being excavated and consolidated ready for display (Butler 1990); the same situation can be seen at Dryslwyn (Caple 1990), and another Welsh castle has recently been excavated and displayed by the Clwyd County Council at Caergwle (Manley 1994). The need to define Welsh cultural achievements more broadly has thus led to the identification of archaeological research programmes which have received local and national government aid. These then feed information, images and locales for educational experiences which can reinforce the Welsh identity, often, but not exclusively, through the medium of the Welsh language.

Castell Henllys can thus be seen to be part of a wider trend, but it is still unique in being the only actual Iron Age, Celtic, site available for educational use on this scale. The National Museum of Wales has built a farmstead with three roundhouses and a four-post granary at its St Fagan's Folk Life Museum, but otherwise the period is not represented in Welsh places available for school visits.

North Pembrokeshire, the region within which Castell Henllys is situated, has suffered from recent reductions in military spending, with the closure and downgrading of various installations and consequent loss of employment. In an attempt to ameliorate these changes, funds have been made available under a West Wales Task Force scheme. and the National Park was able to

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obtain some of this funding to improve the facilities at Castell Henllys, and in particular provide an education centre building (Anon 1994). This structure has been designed to fulfil modern educational needs, and has been placed at the foot of the hill on which the fort of Castell Henllys is situated. It is clearly a modern building, but has been designed to harmonize with the environment and echo elements of Iron Age design. Thus, it has a curved side, main structural timbers in the round, and has external and internal walls that are in part unrendered boulders. Within the building there are toilets and cloakrooms, a small laboratory and library and large teaching room. Timber walkways lead to the building, which has a grassed roof. Outside the building a semi-circular area with timbers in the round set upright at various heights acts as a small theatre for dramatic recreation of Iron Age life and mythology. A maze and bridge across the stream act as a route by which children can pass from the modern world on their way to visit the Iron Age fort itself.

A full-time educational assistant has been appointed to develop the use of Castell Henllys for schools, administer the bookings and help teachers in their on-site educational work. Other part-time employees assist in the acting out of Iron Age roles, both at the education centre and on the site itself. This role-playing relates to elements in the National Curriculum which link story telling, myths, and everyday life of the Celts. It is part of the process which links the education centre to the site, as various aspects of Celtic culture are explored as the children progress up the hill to the fort and the reconstructed buildings. Some groups of children also dress in Iron Age costume, while others carry out their projects in modern dress. Teaching can be through the medium of Welsh or English, and currently over 25 per cent is in Welsh.

Subject emphasis is in part dictated by the National Curriculum, and there is stress placed on role-playing and empathy. The mystical and military aspects, beloved by Foster, have not been suppressed, as they appeal to the imagination of children and are within the curriculum. However, more of the domestic aspects of life are also covered. Within the schools' programme imagination and role-playing allow children to explore and recreate pasts, but within a closely structured educational framework supported by National Park staff and teachers briefed, for example, through the education pack.

It is worth noting at this point one other link between the site and the local community. Foster placed a notice about Celtic religion by a spring on the western slopes of the hill near the fort, and the National Park continued this with a display panel and the planting of a few artefacts around the spring itself. It has subsequently become a place of pilgrimage for some followers of alternative religions who place votive offerings by the water or tie them onto the surrounding trees. The simulated display of past behaviour has here been a stimulus for current ritual practice.

CAREW CASTLE: A CONTRASTING EMPHASIS

Carew Castle lies in the south of Pembrokeshire, within the English-speaking area of the county. The site has been managed by the Pembrokeshire National Park since 1984, but with a very different emphasis from that at Castell Henllys. Although there is an Iron Age phase of fortification, and a famous eleventh-century Celtic cross from Carew on display at the site, most emphasis is placed on the later, medieval Anglo-Norman phases of the site. Within the English-speaking area, a link to this time and culture is more appealing and appropriate, with the Celtic aspects being downplayed. The notices are all in English only, rather than bilingual Welsh and English as at Castell Henllys, and the full colour Carew Castle booklet is available only in English (Davis 1987). This includes Tudor and Civil War sections which further link the castle with English history. The tone of the booklet is one supporting the Norman castle builders; the Welsh are seen as 'warlike'.

Everyday life in a castle is also relevant to elements of the National Curriculum, though not ones that are specific to the Welsh version. Most educational activity at Carew is undertaken through the medium of English, and few Welsh-speaking schools (less than 5 per cent) travel to visit the site, though many travel greater distances to visit Castell Henllys. In contrast, over 25 per cent of schoolchildren visiting Carew come from England. Thus it is clear that cultural affinities play their part in the relative attraction of sites and the media through which they are displayed.

CONCLUSIONS

Two monuments in the care of the Pembrokeshire Coast National Park display the way in which different aspects of the past are emphasized depending on the present social and cultural contexts within which they are situated. The Iron Age fort of Castell Henllys can be used in the Welsh-speaking northern Pembrokeshire as a symbol of Celtic identity and achievement. It reflects indigenous ways of life which were effective for centuries, not dependent on or dominated by external groups. In contrast, Carew Castle is seen as a flowering of Norman and Tudor culture, imposing order and cultural dominance over a largely ignored native populace. Linked to English history, Carew offers little to the Welsh themselves, except within the highly Anglicized English-speaking context of south Pembrokeshire. That the literature is not available bilingually is evidence both of the policy emphasis of the National Park, and the lack of demand from Welsh-speakers who presumably do not find such a site an attractive destination.

The contrast at Castell Henllys between the interactive, contradictory, fluid and low-budget display mode of the Foster era, and that of the National Park with its official guides and professionally designed display boards, is equally striking. In both phases the Celtic spirit and achievement are glorified, but the

role of the visitor varies greatly. For Foster the visitor could, or even should, be active and help to produce the past; with the Park the visitor is clearly a consumer of an authoritative product, a professionally presented single view. The individual entrepreneur had to answer to no one, could create his own style; the institution answers to committees, and reaches decisions by the same process. The individuality of the presenter is therefore lost, and the visitor likewise has no creative role. For consumers the Park presentation is aesthetically far superior and coherent, and authorities such as myself remain in control of the information given out. But perhaps the innovation and challenge that the Foster approach offered are something which was well worth having, and alternative pasts will now have to be created in a different context away from Castell Henllys itself.

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REFERENCES

Anon. 1994. A hand-made link to the Iron Age. *The Architects' Journal 6* July, 29–39. Butler, L.A.S. 1990. Excavations at Dolforwyn Castle, Powys, 1986–90. *Archaeology in Wales* 30, 19–20.

Caple, C. 1990. The castle and lifestyle of a 13th century independent Welsh lord; excavations at Dryslwyn castle 1980–88. *Chateau Gaillard* 14, 47–59.

Davis, P.R. 1987. Carew Castle. Haverfordwest: Pembrokeshire Coast National Park Authority.

DCCED. 1993. *Pathways to the Past. The Celts at Castell Henllys*. Haverfordwest: Dyfed County Council Education Department/Pembrokeshire Coast National Park Authority.

Gilchrist, R. and H.C.Mytum 1986. Experimental archaeology and burnt animal bone from archaeological sites. *Circaea* 4, 29–38.

Manley, J. 1994. Caergwle Castle, Clwyd. Medieval Archaeology 38.

Mytum, H.C. 1985. Excavation, reconstruction and display: some issues in the presentation of archaeology to the public. CBA Group 4 Forum 1984–5, 17–24.

Mytum, H.C. 1986. The reconstruction of an Iron Age roundhouse at Castell Henllys, Dyfed. *Bulletin of the Board of Celtic Studies* 33, 283–90.

Mytum, H.C. 1988. Castell Henllys: a visitor's guide. York: Department of Archaeology, University of York.

Mytum, H.C. 1991a. Excavation at the Iron Age fort of Castell Henllys 1981–89. *Archaeology in Wales* 29, 6–10.

Mytum, H.C. 1991b. Castell Henllys: Iron Age fort. Fortress 9, 3-11.

- Mytum, H. 1994. Language as symbol in churchyard monuments: the use of Welsh in nineteenth- and twentieth-century Pembrokeshire. *World Archaeology* 26, 252–67.
- RCAHMW. 1925. An Inventory of the Ancient Monuments in Wales 7. County of Pembroke. London: HMSO.
- Welsh Office. 1991. History in the National Curriculum (Wales). London: HMSO.

13 The Parc Pyrénéen d'Art Préhistorique, France: beyond replica and re-enactment in interpreting the ancient past¹

JEAN CLOTTES AND CHRISTOPHER CHIPPINDALE

INTRODUCTION

The Parc Pyrénéen d'Art Préhistorique, near Tarascon-sur-Ariège in the French Pyrenees, was the 'brainchild' of the President of the Ariège Department Council, Robert Naudi. After a number of years of discussion, during which a scientific committee met on a number of occasions and contributed advice and suggestions, the Park was finally built by the cultural project consultants B. Ayrault and J-L. Pivin. Following a partial opening for several months at the end of summer 1994, the Park opened fully from 8 April to 15 November 1995 and in that year received an encouraging 54,000 visitors. It had cost about 42 million French Francs to construct. In 1997, its third year, it received 55,000 visitors.

Much of the Park is based upon palaeolithic art found in the nearby cave of Niaux. Careful monitoring of the cave's atmosphere, especially in the famous, painted *Salon Noir*, has been used to define the very small number of people who may enter the cave each day without upsetting the atmospheric balance. Hence the Park was created to go some way to satisfying the tourist demand at Niaux in a way that would not damage the caves. The primary aim of the park project was not only to inform the general public about the cave's contents, but also to entertain them. The Park attempts to offer a quality experience, accessible to everyone, while at the same time remaining faithful to the prehistoric archaeological record.

DEMAND AND SUPPLY AT THE PALAEOLITHIC PAINTED CAVES

As the Park marks a new initiative in the presentation of palaeolithic art in the French caves, a brief notice of previous work is in order. Attitudes to public access and conservation have changed a great deal over time, and the requirements of conservation are now decidedly placed before those of access. For example, it

is not expected there will ever be public access to the magnificent new Grotte Chauvet, whose preliminary publication shows it to contain art even more impressive than that at Lascaux.

When the first palaeolithic art was rediscovered there was a period of access in response to demand, controlled only by local circumstances. This was an obvious and natural response to a new phenomenon. With a limited amount of tourism, demand, even given the physical restrictions of the caves, was manageable. Necessary and reasonable provisions (for example, lights, ladders) were—and still frequently are—made, in the light of what seemed/ seems reasonable. However, such access naturally has an inescapable impact. Wherever, for instance, lights are installed in caves that are illuminated for any significant length of time, one can expect the green algae to grow around them which require light. At Rouffignac, where the paintings are quite some distance from the entrance, 'reasonable provision' extended to building a light railway and a battery-powered train to run on it. At other sites external facilities were provided. At Gargas, for example, there is a substantial building containing tourist facilities, and outside Niaux a big steel sculpture by the entrance makes the inconspicuous cave opening into a substantial landmark on the hillside. At the same time, other caves are not open to the public at all, including some of the best and most famous. At some of these, the norm is to allow extremely limited access. Individual attitudes and arrangements largely depend on the proprietor, often a private individual or body, whose policy may be to allow a great deal of access or very little. Attitudes are also decided by precedent, in terms of what existed already or was done at the time when the art was initially rediscovered.

RESPONDING TO DEMAND

The catastrophe of Lascaux brought demand-led access to an end: it proved that it is not safe or sensible to be driven solely by demand for visitor access. Instead what matters is *supply* of visitor access, that is, the maximum human presence that a cave can withstand. This is not always easy to define, but can reasonably be estimated. Those responsible need to keep a good record of the cave's known and stable environment, by way of temperature, humidity, and other measures; restrict the human presence to not too many visitor groups of not too many visitors for not too many minutes per group; watch with care the record of the cave environment to be sure it is not being negatively changed by the visitor numbers; reduce visitor presence if such a change is observed. Applied to Niaux, for example, this approach means a restricted number of groups, and therefore of individuals, on any one day even at the height of the tourist season. Tourists wishing to visit the Niaux cave now have to book on arrival. In mid-summer, the next free spaces will be quite some days ahead, and the visitor who arrives expecting to go in straight away, or at least in a day or two, will be disappointed. The maximum number of visitors accepted on any one day is eleven groups, each of a maximum of twenty people, making 220 altogether; and so large a number is only permitted for a limited number of days at the height of the season. Even without active marketing, the annual number of visitors allowed into Niaux, 26,000 in 1997, is well below demand.

Once the crisis of its microbiological infestation was stabilized, a similar strategy was introduced at Lascaux. At Lascaux, it is thought, the safe 'carrying capacity' of the cave is very small, so access is restricted to those who in some way have special reason to see it. As a result of the restricted access to the real cave, the reconstruction, Lascaux II, was built (Delluc and Delluc 1984; and see Debaye and Duchadeau-Kervazo 1994). Lascaux II aims to provide for the large numbers of the public who wish to visit, and to recognize also the substantial dependence of the immediate region, and especially the neighbouring settlement, on income derived from the painted cave.

The English-language account of Lascaux II (Delluc and Delluc 1984) calls it a 'faithful copy'; and so it is, an exact replica, in that the visitor is intended to see exactly the same images in the same colours on surfaces with the same texture as in Lascaux itself (also see Ucko 1992). The appearance, the placing, the way the visitor is shown the place, even the name of Lascaux II carry through this spirit. Lascaux II is adjacent to the real Lascaux (therefore 'Lascaux I'), in the shoulder of a low wooded hill. To create Lascaux II, a concrete structure was built at the top of the slope, and covered with earth to incorporate it into a natural-seeming profile, as if the hill-top extended a little further; now also under trees and bushes, it has the appearance of just another part of the natural hill. There is a building with postcards and ticket sales, and the procedure is just like that one finds at the other archaeological sites and painted caves of the Dordogne. The visit is guided, so on buying a ticket, you are told the time of your tour, perhaps minutes, perhaps an hour later. At the appointed time, the group gathers around the guide, who sports a thick jacket because of the difference in temperature between inside Lascaux II and outside. You go down a set of steps let into the earth, and there is a locked door. The door is opened for you, and in you go. Immediately inside is not a damp cave, but a dry rectangular room, a clearly artificial chamber, with displays about the place. Then the group moves into the second portion of the replica itself, which is 'as if a cave'. It is not very damp, as a cave usually is, and the floor is black rubber, very conspicuously a most unnatural material, but the place does have the feel of a cave in many other respects. Some theatre with the lighting assists in the 'authenticity' of the experience. One leaves by a different way, squeezing through a narrow passage, and climbs up stairs into the light of the day once more. As Lascaux II is close to a simulacrum of Lascaux, so the procedure by which one visits Lascaux II suggests a simulacrum of a visit to Lascaux.

Although Niaux has not suffered the environmental problems encounted at Lascaux, the experience of Lascaux has been a warning—to all of the cave owners—of the dangers of over-visiting. Writing in 1998, one must

also remember the changes since the 1960s, when Lascaux I was open to the public. Tourists are far more numerous, and the season when they travel is more extended. They are perceived to require more elaborate and higher-quality facilities, to be less inclined to physical effort, and to be less prepared in their clothes and footwear for a cold or wet experience outside a bus, car, building, or artificial landscape. All this increases demand, both in terms of how many visitors a given attraction may hope to attract, and in how much a natural place such as a limestone cave may need to be adapted and interfered with for the visitors' convenience. Increasing formal concern for requirements of health and safety means perceived risks need to be avoided or reduced. With tourism increasingly seen as a key economic activity, all the interests concerned with prosperity in the immediate and broader region will look to a famous place like Niaux as a commercial asset, and not wish it to be closed or scaled down as a venture.

One option was therefore to create a Niaux II, on the Lascaux model, a simulacrum which would divert pressure from the authentic cave on to a 'faithfully copied' artifice engineered to suit the visitors and their needs. Such a development was considered but rejected.

AUTHENTICITY AT THE PAINTED CAVES

The usual—and good—justification for restorations, replicas, and reenactments is that they provide a fuller sense of what a given place was like than do the actual remains—so often fragmentary and worn. Instead of a 'hut circle', a rough ring of small stones among the grassy tufts of an English moor, one can offer a reconstructed hut, a standing building which visitors can actually experience. Seeing how it looks from outside, going in the low door to see how dark the interior is, discovering—should a shower of rain pass—how effective turf or grass thatch is as a waterproof roof. The message is: 'This is what it was like.' This, however, is only partly true as we should be saying 'This is what it was like, as the individual presently experiencing it finds it.' The modern tourist visiting, say, the Biskupin wooden fort in Poland is not an Iron Age person, but makes sense of it in terms of their own cultural experience and background, a quite different set of cultural norms from those of north central Europe twenty-five centuries ago. This truth, which always applies, is the stronger the further the visitor is removed in cultural experience from what is presented. Living in an artificial world of constructed rectilinear spaces and objects, we are less struck by straight lines and right angles than perhaps we should be because they are not rare in our experience but universally mundane. Artificially separated from the lives and deaths of the creatures which we eat, we are more struck by the nature of large living creatures close to, and by the experience of killing them, than, again, perhaps we should be. Accustomed to the vast built structures of our own technology, we find

prehistoric structures less large and grand than they may have seemed in their own times. These considerations apply with special strength to later palaeolithic Europe. One is at least there dealing with our own species, Homo sapiens sapiens, rather than remote creatures like the Homo erectus of the earlier European palaeolithic sites, with whom such fundamentals as speech may not even be held in common. But these are culturally remote Homo sapiens sapiens', and their being hunter—gatherers is only the first of many profound differences. Deep caves, strange places in the earth, prompt strong cultural reactions (as one sees from the varied cultural interpretations and responses in recent recorded experience). One can reasonably think both that the palaeolithic response to them was strong (their use for painting being one proof of that) and that the response is unlikely to have much culturally in common with how we feel today when in a cave.

Therefore a replica such as Lascaux II at Niaux would provide an experience that gave the message 'This is what it was like', but that would be a limited truth, however effective it is at Lascaux. Instead, the public facilities at Niaux take a different approach that suggest 'This can never be what it was like—even if it were to be physically the same.' Such interpretation is not a replica or a reenactment, but a more modest and original kind of ambition: it attempts to evoke aspects of Niaux, and the world the people of Niaux lived in; to point out aspects of that world in terms we in the late twentieth century find striking; and to admit openly that there is a gulf between life as experienced then and the same life as we seek to grasp an essence of now.

With this approach, the fundamentals of a Niaux II change: not necessarily a cave, not necessarily underground, not necessarily exactly like Niaux except in those few aspects we choose so to treat and identify. Without obligation to remake the form of a given underground cave, it can take whatever physical form is suitable.

THE PARK

The Park contains a cave, but not this time a replica intended to re-create real Niaux, 'Niaux l', but something bolder. Besides a shop, with a good number of books on prehistory, and where an excellent restaurant (serving, if one is fortunate, a prehistoric creature for lunch, in the form of a fine and strong-tasting *civet de bison*!) is situated, the park is divided into two main areas: an interior building (the *Grand Atelier*) and an extensive open-air site around it.

The Park is near the edge of the neighbouring town, not far from but not close to or in sight of Niaux. It is situated in a deep bowl of a superb mountainous landscape, on a slope and with a river below. The architects have succeeded well in setting the immense *Grand Atelier* and the adjacent buildings into the

landscape; no attempt has been made to sink this large building into the ground as an artificial cave, or to pretend it does not have bulk.

THE LANDSCAPE

Much of the landscape has been designed for the family to be able to explore in the sun: a waterfall you walk behind, a lake with stepping stones, a fantasy stone landscape with little cliffs and hollows, overhangs, caverns, pools, gravel, running streams. Zooming about there, children will fall across some bits of prehistory—almost by accident: here a hand stencil, there a little painting, here a cluster of antique bones half-embedded in the ground. In the *Torrent des Traces*, visitors follow the stream through a cave-like sequence. On the ground there are human footprints (Figure 13.1) and, further along, bear, wolf and bird prints.

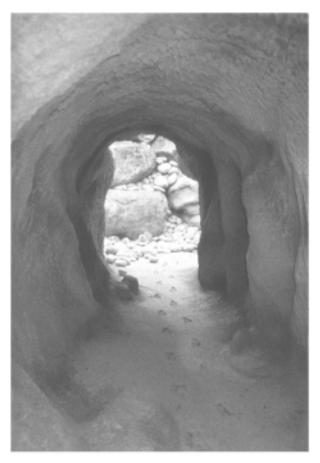


Figure 13.1 A narrow passage as in a cave, with human footprints

Down the hill, through the wood, one suddenly comes across a clearing of more open ground, and in it a herd of bison. They are not live, and they are not model replicas either. This is a herd of massive *concrete* bison with the spirit of the beast transformed into this static material. You can climb on these fine high creatures, and if you are as young 5 or 7, you will need an adult to lift you on. Most of the bison are in a tight group, and when you go up close, you find you can walk inside the massed herd, and find yourself within a circular diorama, the 'Hunting Scene', the work of Gilles Tosello, prehistorian and artist (Figure 13.2). Tosello details a day in the life of the people of the Magdalenian period; from when they leave their camp in the morning, through to their evening camp-fire activities, with a reindeer hunt as a centrepiece.

Along the slope from the *bison béton* is another odd contrivance, a 'Labyrinth of sounds'. Here small trees and bushes create a maze-like series of paths, and the varied and startling sounds of the 'jungle', or of some other equally exotic faraway world, are set off as the visitor passes by.

THE BUILDING

The *Grand Atelier* is a huge space on several different levels. On entering, visitors are provided with earphones. Explanations, in several languages, with a special version for children, are given as visitors pass well-concealed reception stations positioned at strategic points of the display. In this way visitors can move at



Figure 13.2 Diorama by Gilles Tosello showing Magdalenians hunting reindeer

their own pace. Although no attempt is made to replicate a cave as such, and the building is above ground, it is made a big windowless place of lighted areas within an overall darkness, in an overt attempt to recreate the atmosphere of deep Pyrenean caves. A myriad of tiny lights on the floor help visitors to move around safely.

Following a display demonstrating the immensity of prehistoric time, a film presents a detailed explanation of how dating methods work. A huge diorama presents a panoramic view of cave and rock art throughout the world, to make the point about both its universality and its variety. The *Dune des Pas du Réseau Clastres* (20 metres in length), the place deep in the Niaux cave-complex where three children walked side by side leaving over 130 footprints in the sand, has been reconstructed exactly as found. A complex lighting system brings the footprints in and out of shadow in the same way as a torch would. Further on, the full extent of the immense underground cave system, represented in section and to scale, gives some idea of the distances covered underground by people in the Magdalenian period 13,000 or 14,000 years ago.

The main room of the Grand Atelier is a reconstruction by R.Sanson and his team of the Salon Noir, showing a selection of panels with 'signs' and the principal ground engravings, complemented by a video point where a discussion of the various interpretations of the art of Niaux is permanently available (Figure 13.3). There is also a display of replica mobile art of the Pyreneen Magdalenian period together with an explanatory film. It is its monumental scale, the number of features and the play of light and shadow used to bring them into relief which makes the Salon Noir the centrepiece of the park and its cave. The space is of much the same size and proportion as the Salon Noir at Niaux, and the parts of the walls and floor with replica rock art naturally follow its original surface appearance; but no attempt is made to pretend this is a replica cave. The video monitors are neatly presented on small pillars, in no way pretending to be ancient! This facsimile is full-scale and provides an excellent opportunity to appreciate the replicated cave art. Visitors can get as close as they wish to this art to examine it in detail. They can also view the art of the Cul-de-Four, the remotest and most 'secret' part of the sanctuary which cannot be viewed by visitors to the real cave.

The Parc Pyrénéen d'Art Préhistorique was first and foremost intended to promote tourism—to provide an additional attraction to retain tourists in an area where caves, both with and without art, are already visited by the public as a major attraction (e.g. Niaux itself, La Vache, Lombrive, Bédeilhac, Labouiche, Le Mas d'Azil). Despite this primary aim, scientific accuracy has been a major consideration throughout.

ISSUES RELATING TO THE RECONSTRUCTION

Inevitably some choices had to be made during the reconstruction of the cave. It was not possible, for obvious practical reasons, to recreate the physical immensity

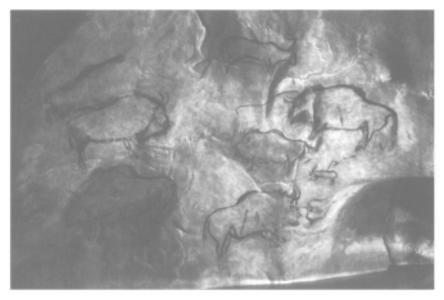


Figure 13.3 Lifesize replica of panel 6 in the Salon Noir of the Niaux cave

of all the actual galleries of Niaux. So, for example, only the *Dune des Pas* area of the *c*. 2 km long *Réseau Clastres* has been reproduced. Inevitably, some prehistoric reality has had to be truncated. Some details of the art are therefore only reproduced partially: the panels of 'signs' on either side of the gallery which leads to the *Salon Noir*; the paintings of the *Réseau Clastres*, facing each other; the majority of the floor engravings. Their actual details are explained in a large model where the whole cave and art systems appear in plan and in section. Even in the *Salon Noir*, however, which features the majority of the paintings, and which is a true facsimile, a decision had to be taken. Visitors find themselves on a lower ground level than was the case in the Magdalenian period; this makes the art easier to see. The level of the original ground surface is marked on the walls to make clear this distortion of reality.

Another major policy decision was adopted whereby the paintings have been represented in their original state. All subsequent accretions on the paintings have been either partially or totally eliminated and visitors are able to see the paintings as the Magdalenian people painted them as the art has been faithfully reconstituted on the basis of evidence provided by photographs of the originals in ultra-violet light, employing a technique used for the first time in the 1970s by Alexander Marshack (e.g. 1975). This technique reveals a great deal of detail which cannot be seen with the naked eye. The detail of the coats of some of the animals reappears, as do other heads or missing extremities. These features, at present impossible to see in

the cave itself, did once exist; they are brought back to life in this park facsimile, making it possible to see the animals much more as they would have appeared originally (Figure 13.4). This was the only work of an experimental nature undertaken during the reconstruction and, to the best of our knowledge, it is the first time in the world that such reconstruction has been attempted. There was no attempt to experiment with ancient materials; the production of the facsimile used modern materials in order to build a prehistoric park of the highest quality.

INTERPRETATION

The visit to the *Grand Atelier* is essentially educational, information being provided through headphones and continuously projected films. In addition, there is an important learning experience from the floor engravings which visitors illuminate with fixed orientable lights; in this way the engravings can be brought into relief, just as in a real cave. As one of us wrote after visiting the Park (Chippindale 1995:227),

some magic is going on here. I did not figure out how the moulded figures in the floor looked without seeing—until some 10-year-olds, smarter than me, figured out how you twiddle the lights. The visitor is directed, and enabled to discover.



Figure 13.4 All the details of the original paintings have been reproduced thanks to ultraviolet photographic coverage

Finally, every afternoon in the summer there are demonstrations in the parkof the use of spear-throwers as supposedly used in the Magdalenian period; on how to make fire by using two sticks or by knocking flint against a pyritenodule; and on how to paint 'in the palaeolithic way' on a reconstructed cave wall. Twice a day there is a short lecture from an archaeologist about other economic and subsistence activities during the Magdalenian period. During school terms, introductory archaeology sessions are also available.

Visitors' questionnaires indicate a 90 per cent satisfaction rate. Yet the Park has addressed some fundamental dilemmas of interpretation—vividly illustrated in the outside park, with its landscape of sounds and its concrete bison, and in the great synthetic space in the building with reproduction cave-paintings. It accepts that what we call reconstructions and re-enactments can only be partially so; they can never be fully authentic, because the people who experience them are not 'authentic'. The Park has questioned how it is possible to convey what it was *like* to live in the European Palaeolithic and accepts that we only make sense of it, we only *can* make sense of it, by relating aspects of its essence to elements of our own experience—the only thing any of us know directly. In doing so, we should, whatever we think of the interpretation, enjoy the *nerve* of the Park's concept.

That given, the Park uses three strategies to express some understanding of—perhaps the essence of—the palaeolithic. First, some things are given in exact replica—the paintings of the Salon Noir, for instance, and the foot-prints (or more fully than in replica, since the paintings have their missing portions restored). Second, some aspects are given in a kind of culturally translated form. Often, to enter a cave, one walks down some kind of an entrance-passage, in full or near darkness, and with dripping water: and so one does in entering the Grand Atelier, but the passage is clearly built of contemporary materials rather than a simulacrum of a cave-wall, and the dripping is into a sculptured line of metal bowls, devised so they make a fully drippy sound! There are bison, but they are not living animals. Third, other aspects simply convey strangeness, cultural distance and the variety of human experience. The watery landscape, with its enclosed spaces and sounds of rushing streams, tells a visitor of the delight in exploring country, and the odd things one may find there: the landscape of sounds does something similar. The synthesis of these three strategies creates a whole which provides a powerful and educational experience not only for those with some background knowledge but, hopefully, for everyone.

NOTE

1 The senior author, Jean Clottes, is one of the team who created the Park. The junior author, Christopher Chippindale, writes as an uninvolved colleague who tries to give an 'outside' impression of the result. Clottes' portion was especially written for this book (and originally translated by Philippe Planel), and Chippindale has drawn on his previous comment on the Park (1995).

REFERENCES

Chippindale, C. 1995. Editorial. Antiquity 69, 224-9.

Debaye, D. and C.Duchadeau-Kervazo. 1994. Lascaux II—Le Thot: Deux structures touristiques a vocation multiple. In The multifaceted aims of reconstruction sites: archaeological evidence, 'reconstruction' of sites, education and public awareness. Unpublished precirculated paper, World Archaeological Congress-3, New Delhi, India. Delluc, B. and G.Delluc 1984. Lascaux II: a faithful copy. *Antiquity* 58, 194–6.

Marshack, A. 1975. Exploring the mind of Ice Age Man. *National Geographic*. 147,

Ucko, P.J. 1992. Subjectivity and the recording of palaeolithic cave art. In *The Limitations of Archaeological Knowledge*. T.Shay and J.Clottes (eds), 141–65. Liège: Etudes et Recherches Archéologiques de 1'Université de Liège.

14 Experimental archaeology and education: ancient technology at the service of modern education at SAMARA, France¹

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TRANSLATED BY PHILIPPE GPLANEL

PRESENTING THE SAMARA CONCEPT

The choice of site

The SAMARA site is situated 10 km west of Amiens (120 km north of Paris) and lies on the northern side of the Somme Valley, at the foot of the fortified late Iron Age oppidum of Chaussée Tirancourt. It contains valley bottom peat marshes, lower alluvial terraces and the chalky slopes which link up with the Picardy plateau (Figure 14.1).

The 25-hectare complex brings together and highlights two elements of French heritage: an exceptional natural environment and an extraordinarily rich archaeological record. The environmental dimension of the site includes a marshland tour, a botanical garden, arboretum and hides for observing wildlife. It also features research projects, for example, using the ecosystem of lagoons to absorb and treat waste water. Finally, there are exhibitions on traditional activities such as bee-keeping and peat cutting. The archaeological part of the site shares the same setting and is divided between a permanent exhibition centre, archaeological reconstructions and experimental archaeology and craft areas.

The Somme Valley is the birthplace of Boucher de Perthes, one of the founders of prehistoric archaeology in the second half of the nineteenth century. It thus seems very appropriate that archaeology should be presented to the public in this valley.

Exemplary financing

SAMARA cost 30 million francs to develop. A third of this sum was contributed by the state (Ministère de la Culture and Region Picardie), a third by the county (Conseil Général de la Somme), and a third by a bank (Credit Agricole). Since the opening of the site on 25 June 1988 only the Conseil Général de la Somme has continued to finance the site, both in terms of running costs (making up shortfall in revenue) and investment. Due recognition must be given to the President of this body, Fernand Demilly, for having convinced his colleagues of

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Figure 14.1 Aerial photograph of the site

the need for such a venture in a neglected region, with above average unemployment figures.

Presenting archaeology, the concepts used

Those responsible for the project decided to focus on three key aspects:

- Scientific: all interpretations, all reconstructions, all on-site activities are drawn from ongoing archaeological research (recent excavations, cooperation with university and regional archaeologists, links with similar centres).
- Cultural: SAMARA's aim is to be a multi-layered popularization of archaeology addressing all social and age categories. All forms of interpretation selected (see below) should contain several levels of potential understanding. Further, like all good popularization, it should be precise and not too abstract, intelligible for those without prior knowledge and under constant review.
- Educational: The French national education system is responsible for the content of teaching programmes and the skills imparted to children. The role of a cultural institution, such as SAMARA, has to be differentiated from this. SAMARA has therefore emerged as a place where educational programmes can be implemented (a tool, a means) and as a place where

children become involved in active learning and embark on a voyage of discovery.

These concepts were present at the inception of the project, although the actual form they were to take had yet to be determined. The decision was, and remains, very clear: to present archaeology and the history of mankind in a sensitive manner.

The three main parts of the archaeological presentation of the site are a response to these demands:

• The exhibition hall (Figure 14.2): In a building designed by Bruno Lebel (Grand Prix de Rome in sculpture), symbolizing a reclining human figure, an exhibition represents, in ten scenes, 600,000 years of prehistory and history (from the Lower Palaeolithic to the Roman).

The exhibition, illustrated by the archaeology of the region, aims to convey the chronology and depth of the time-scale. All the artefacts displayed are faithful copies (authentic as regards both form and materials, and based on artefacts recovered from excavations). This serves an obvious purpose: since the tools, weapons or utensils are not vital treasures of national heritage they may be handled and passed around, making it possible to appreciate form, materials, weight, texture, and so on. The artefacts are displayed in a setting in which the key aspects of the period are present (natural or human-made environment, technology, sociocultural or socio-economic background).

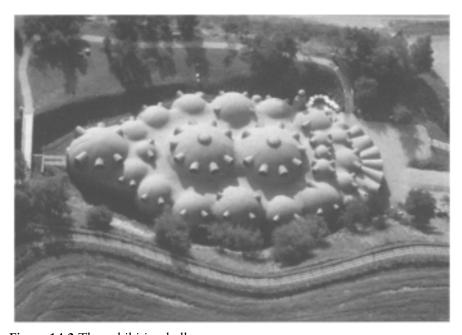


Figure 14.2 The exhibition hall

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- The reconstructed buildings: Three prehistoric dwellings (early neolithic farmhouse inferred from an archaeological site in Picardy; late Bronze Age house (Figure 14.3); late Iron Age house with grain store, cellar and well) and a group of craft workshops (potter's workshop and Gallo-Roman kiln dating to the second century AD) exist on the site. The aim is to convey the scale of the buildings, their form, the materials and techniques employed in their construction and further, to approach everyday life through artefacts and the use of space. Small gardens contain plants no longer cultivated today ('amidonnier', einkorn, vetch) or considered inappropriate to our climate (millet, vines).
- Craft-technology area: The main craft types and the different technologies are presented by craftsmen who work in close collaboration with archaeologists. This makes it possible to give demonstrations which are synchronic (all those craft skills associated with a particular period) or diachronic (the development of a technique over time) and which illustrate the history of technology as part of the human story. The crafts practised include flint-working, stone and bone carving, smithing, bronze-work, jewellery-making, pottery-making, weaving, dyeing, basket-making.

SAMARA is to our knowledge one of the few sites in Europe (and even in the world) to provide such demonstrations full-time and throughout the year.



Figure 14.3 Late Bronze Age houses

ARCHAEOLOGICAL WORK AT SAMARA

On-site popularisation

All those involved in the popularization of science know how difficult such work is. In essence, the results of scientific work and specialist study must be faithfully presented to people of varying ages and cultural backgrounds. In addition, when this popularization takes place in a competitive economic environment, it must be sufficiently attractive to draw in visitors who are willing to pay an entry fee, and must avoid wooing the public with a misplaced folksy, 'fun-packed' or mercenary approach. The main difficulty is, at the lowest level, combating an indifference to 'culture' and, at the highest level, providing demonstrations and interpretations of the highest quality for the most discriminating. Only by maintaining a commitment to research will the quality of what is offered be maintained. Good popularization follows hard on the heels of research, in the fields of both science and education.

Popularization, like all human activities, can be evaluated as to its effectiveness: it should attract a number of people and meet their individual needs. These needs can be defined in terms of behaviour (what I do), values (what I believe, what I think) or identity (what I am). Visitors to SAMARA can be divided into three categories: the general public (as individuals or families), associations (adult groups), school parties (children in school groups). These groups all make different demands of archaeology and, furthermore, these demands differ within each category (see Table 14.1). However, only one interpretation is offered and it must satisfy as many people as possible. The problem is to avoid the pitfalls of, at one end of the spectrum, playing to the gallery and, at the other, of elitism. Neither must we underestimate people: the public are intelligent precisely when they are unburdened by preconceived ideas.

The interpretation of archaeology at SAMARA is intended for visitors described in level 3, Table 14.1. This includes the reconstructions, museum displays and some demonstrations. The public at level 2 will be able to build on this, to talk to guides and other staff and extend their knowledge. The quality of staff is crucial in getting the message across. The approach used with the public in level 1 is more innovatory. It must of course make use of the existing infrastructure and staff resources but the activities are new ones or are adapted to more precise needs (see Table 14.2). Such work is very important in a cultural sense: being innovatory it also demands constant re-evaluation. This is important for the development of SAMARA.

A research establishment

The objectives. of a site such as SAMARA cannot be compared to those of the actual 'Monuments Historiques' or 'Musées de France'. It is not part of our remit to present artefacts recovered from archaeological excavations. Our work is a work of 'creation'.

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Table 14.1 Criteria and motivation of a range of visitors

Visitor type/level	Level 1	Level 2	Level 3
	(2–5 per cent of visits)	(5–15 per cent of visits)	(80–90 per cent of visits)
School parties	 advanced educational project hands-on workshop theme-based visit preparation and follow-up work 	Developing classwork • giving knowledge a practical dimension	End of year trip
General Public	 specialists high educational level high social level	 the curious educated open to new ideas	 chance word of mouth accompanying others
Organized visits	learned societiesseminars, conferences	club or societyheritage trip	 day trip (senior citizens, works or sports club outings)
Appreciation	strong identificationfurther consolidation	values (believing/thinking)knowing and understanding	• behaviour (doing/seeing)

A further difficulty lies in the fact that SAMARA is not a scientific (or educational) research establishment in the institutional sense. Yet, as stated above, the quality and edge of popularization depend on close links with research work. SAMARA has chosen to work in association with archaeological research workers and official institutes. Their role is to set up a research design, ours is to provide the wherewithal, location and certain skills. We are presently involved in four research programmes with bodies which include the Centre Nationale de Recherches Scientifiques (CNRS), the University of Brussels and the regional archaeological service. The research itself, and the results of experiments, are immediately communicated to the public.

The site is constantly enriched with new technical demonstrations and, less frequently, reconstructions (buildings, large artefacts such as boats and structures such as pottery kilns). Our main concern is always to fulfil our objective of popularization and to satisfy all levels of visitors without sacrificing the quality of the experience.

Table 14.2 Forms of interpretation for different visitors

Visitor level	Level 1	Level 2	Level 3
Type of interpretation	specific activities customized programme interdisciplinary work	lecturesguidesdemonstrationsarchaeologists	reconstructionsdemonstrationsmuseum displays

Ongoing research is of interest to specialists, experiments are of interest to an informed public, demonstrations are of interest to all categories. Breaking this interlinking chain would be to rapidly affect scientific, cultural and educational work and we therefore attempt to maintain the links through the popularization of our research (see Table 14.3).

EDUCATION AT SAMARA

Between 42,000 and 48,000 children visit the site each year (60 per cent of total visitors). Some 90 per cent of school parties come to see the archaeological part of the site. The popularity of the site with schools has been recognized by the Ministry of Education and in September 1992 an agreement was signed between the Ministry and SAMARA to reinforce and develop the work of the education department at SAMARA. School visits and workshops are financed by various means. Parental contributions range from 10 to 50 per cent of the total.

The traditional approach: the site visit

Between June 1988 and June 1992, school visits consisted, in the main, in a discovery of the structures and activities presented at SAMARA. This was in essence a consumer product. Teachers and children were given a guide who interpreted the site to them. However, this visit, a fairly straightforward affair, was based on three organizing principles which made it stand out from other visits:

Table 14.3 Research and its popularization

Visitor level	Level 1	Level 2	Level 3
Type of research suitable	 scientific programmes experiments within the parameters of research design testing hypotheses 	repeating experiments new demonstrations	repeating classic demonstrations

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- All copies of artefacts could be handled within three-dimensional displays into which children had access (both in the museum and reconstructions).
- The guides had continually to adapt themselves to the level of the group (age, attention span, level of understanding and preparation). To this end, guides were trained as much in communication and education as in archaeological content. There was no prepared text. (All guides at SAMARA are recruited for their communication skills. They receive three weeks intensive training from archaeologists [university staff, CNRS, regional staff archaeologists] and from educationalists from the school inspectorate).
- School parties had access to the guide for as long as they wanted.

Initially the educational success of SAMARA was due to the quality of the displays, the reconstructions and the activities of the archaeologists, as much as to the method of presentation. Clearly this presentation, interesting though it may have been originally, seemed limited in the long term and could have led to bored visitors, a lack of change or development, and a repetitious approach.

Hands-on workshops

The setting up of an education service in September 1992 made it possible to enrich and extend our teaching activity in at least two areas:

- The creation of resources for teachers and their classes. These resources approach archaeology in three ways: chronologically, technologically, and as an interdisciplinary subject.
- The creation of hands-on workshops. These vary with the programme set up with teachers, but usually feature two parts:
 - a thematic visit lasting a half-day;
 - workshop sessions where pupils transform raw materials into artefacts during the second half of the day.

Hands-on activities also feature during the thematic visit.

Thus, the prehistory workshop presents the theme of chronology and technical evolution from the Palaeolithic to the Neolithic, the reconstruction of a Danubian house and the reconstruction of the local Magdalenien (palaeolithic) Verberie excavation site. The activities for this workshop are flint knapping, bone working and pottery-making. The content of these workshops is to some extent predetermined, but the key ideas and the educational approach are always discussed with the teacher (see below).

This hands-on approach to archaeology and ancient technology has the twin merits of making children aware of technologies and periods of time which contrast with their own experience and also presenting them with an approach to the past through a cognitive process beyond the realms of classroom experience.

SAMARA: A MODERN TEACHING TOOL

Working with children

We want visiting pupils to approach the past in a certain state of mind. We never try to make them identify with the inhabitants of a society which has now disappeared. On the contrary, we try and draw out their 'modernity' by placing them in new situations. In this way we hope they will try to solve problems using modern methods. However, since they do not have modern materials with which to solve problems with which they are confronted they are forced to invent or reinvent in accordance with what is available in their immediate environment. For example, during a workshop which lasted two days and a night in the early neolithic house an 11-year-old girl was particularly struck by the fact that the pottery bowls from which we ate were kept on the ground. At length, and following considerable thought, she began to collect strands of organic matter to plait. She then took a piece of split wood which she hung between two wall posts with the two ropes she had made. She then placed the bowls of the whole group on this reinvented shelf. It is not important to know whether shelves are a neolithic invention or not, but it is important to note that a search for understanding took place. The girl's modern education was challenged and she found a solution which was compatible with the technology of the neolithic. From now onwards the period in question will have a different meaning for her.

Such an approach is not in itself sufficient and it must be accompanied by further work. This can take place at the end of the workshop or later, back in the classroom, with the teacher. The children need to reflect on the successes and failures of their activities but should also put them in context by comparing their solutions with those revealed by the archaeological record. The conditions then exist to explain how archaeology is based on studying physical evidence and upon informed inference. Reflection on successful activities is particularly interesting if the solutions differed from those revealed by the archaeological evidence of a particular period, as this may lead to the possibility of exploring cultural differences.

In materially similar situations, efficient solutions in the present and in the past may well differ. It is our hope, therefore, to convey the idea that two human groups from different cultures living in the same environment can react in different ways.

Working with teachers

No work with pupils can be achieved without the help of their teachers. The children come on-site as a class and they are under the educational guidance of their teachers. However, for two reasons, most teachers are not equipped to maximize the potential of these innovatory activities. First, the approach and methodology of the workshops contrast considerably with main-stream educational practice. Second, archaeology is not included in teacher training

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and teachers are therefore ill-equipped to make full use of our approach. Thus, since September 1992 we have consolidated our work in two ways:

ACTIVE PREPARATION

Every teacher is personally welcomed by the education team to plan his/her visit. After teachers have explained what they wish to achieve, we suggest themes for the visit and relevant activities. Finally, together with the teachers we try and review the objectives and extend them.

Sometimes teachers do not feel they have the ability to prepare their classes for activities outside their own experience. In these cases we may visit the school to help in this task. This link between the teacher, the class and the SAMARA site achieves good results.

INVOLVEMENT IN TEACHER TRAINING

The absence of archaeology in teacher training is of course a considerable obstacle. Archaeology, both in its principles and its methods, is very different from the historical sciences. Fieldwork, multi-disciplinary studies in interpretation, the working understanding of various technologies are all foreign to historical analysis. As a consequence, we have developed links with the education authorities to deal with this problem and have created courses, of several days duration, which are linked to initial and in-service teacher training. We are not trying to make archaeologists out of teachers but rather to provide them with the means of approaching a discipline which is essentially multidisciplinary and practical as well as intellectual. There is indeed a similarity between archaeological and educational approaches (see Table 14.4).

CONCLUSIONS

This chapter has attempted to convey three ideas:

- The popularization of a cultural site involves constant reappraisal. Close contact with archaeological research, both traditional and experimental, is a necessary condition in work where quality and innovation are the hallmarks.
- The conceptual models used in education and archaeology are such that the two disciplines can mutually enrich each other, in parallel and shared enterprises.
- Popularizers and teachers both attempt to extend understanding. We are
 not involved in handing down dry and dusty knowledge but must nourish
 an appetite for learning. A good popularizer, like a good teacher, is not
 someone who has all the right answers but someone who will come up
 with another set of good questions.

Out of the shared experience of children, teachers and archaeologists emerges something which touches the very nature of the human story, both intellectually

Table 14.4 Archaeology and education, defining roles

Pupil acquires knowledge socialization, civic education				
School education: Teacher	$\leftarrow \rightarrow$	Cultural education: Archaeologist		
Transmit knowledge • socialize, taking into account psychology and background of pupils		Popularize archaeology • understand past socio- cultural systems; importance of group as opposed to individual; skills, technology, role specialization and possible hierarchies		

and perceptibly, in time and in space. The potential of this interactive work has not yet been fully tapped. We are confident that the approach encapsulates something of the humanity of tomorrow.

NOTE

1 Since 1 January 1997 SAMARA has been directly managed by the Somme Departmental Council. The park is now open from mid-March until mid-November. The present priority is to develop animations, which are interactive with the past, around ancient techniques and crafts. SAMARA hopes to become a showcase for the archaeology of the local area. For further information please consult the SAMARA web site (http://www.samara.fr.) or the new Director, Bruno Troché. SAMARA. 80310. La Chaussée Tirancourt. France.

15 Lake dwellings: archaeological interpretation and social perception, a case study from France

PIERRE PÉTREQUIN

TRANSLATED BY PHILIPPE G.PLANEL

INTRODUCTION

Following the discovery, in 1854, of the neolithic site of Obermeilen on the shore of Lake Zurich (Switzerland), prehistorians argued for a long time for the existence, after Keller (1854:20-8), of lake dwellings ('cités lacustres') built on platforms out of the water (Vogt 1954:120-4). Using then current dating techniques, the 'cités lacustres' phenomenon reached its greatest extent in the North-Western Alps between the middle of the Neolithic (c. 4500 BC) and the end of the Bronze Age (c. 800 BC). This hypothesis concerning the form of lakeside peat bog villages made its mark on the scientific community and very quickly spread throughout Europe: 'cités lacustres' were identified first in Switzerland, then France, in southwest Germany and as far afield as Ireland and the former Yugoslavia. The charming image (little contested at the time by archaeologists) of stilt villages, amplified by the descriptions of travellers in Melanesia and Oceania, rapidly caught the public imagination and was disseminated as fact in primary education, particularly in Switzerland, Germany and France. Lakeside villages were also associated with nationalist sentiment, particularly in Switzerland (Eder and Trumpy 1979:33–9), epitomizing the golden age of the first farming communities. The full-size replica of pile dwellings at Unteruhldingen, on the northern shores of Lake Constance (Stocker 1976:4) (Figure 15.1), can be attributed to local manifestations of German National Socialist ideology. Built in 1931, the lake dwellings of Lake Constance remain a major summer tourist attraction, attracting 48,000 visitors in 1935 (Schöbel 1993:37), a figure which has not fallen since.

FROM ONE ARCHAEOLOGICAL MYTH TO ANOTHER

However, H.Reinerth, the 'father' of the lake dwellings of Lake Constance (Reinerth 1977:10–12), effectively demystified the theory of 'cités lacustres',



Figure 15.1 Reconstruction of a lake village built on a single platform at Unteruhldingen on Lake Constance (Germany). Designed and built by H.Reinerth (1931). (Photo H.Reinerth)

demonstrating that lake levels varied during the Holocene period (showing that settlement sites under water today would have been occupied when water levels were lower). In opposition to Keller, Reinerth suggested that Neolithic and Bronze Age building had undergone various adaptations in peat and lakeside environments. This notion of the limitations of a single interpretative model gradually spread, while all the while proponents and opponents of 'cités lacustres' fought it out in a series of bitter debates.

Only with Paret's (1958) booklet and Vogt's (1954) overview did the myth of the 'cités lacustres' begin to crumble. However, from one theory which attempted to demonstrate that all lakeside sites were pile-built, prehistory was saddled with another theory, contradictory but equally inflexible: all the Neolithic and Bronze Age lakeside villages were built on temporarily dry beaches and peat levels. Such is the pendulum effect of ideas and theories.

Following a renewed interest in the excavation and scientific analysis of wetlands and amphibious environments, from 1970 onwards, these opposing iterpretations have been strongly challenged (Strahm 1975:157; Pétrequin 1984:30) and current thinking is that all these models may have existed, a range of different structures existing even within the same village. As a result of the long take-up period in the educational world, the general public is now exposed to three separate archaeological theories. The older prehistorians of the present generation still follow, through habit and conventional wisdom, the theory current in their own youth (e.g. Bocquet and Houot 1982:32; Coles and Coles 1989:51),

while younger prehistorians favour multiple hypotheses, influenced by the intellectual canons of the last twenty years rather than the study of evidence (e.g. Arnold 1990:10).

Clearly, then, the understanding of archaeological sites (and hence reconstruction hypotheses) is constantly shifting, responding to traditional and social pressures; archaeology has yet to rid itself of these variables.

A CASE STUDY: LAKE CLAIRVAUX AND LAKE CHALAIN (JURA, FRANCE)

For nearly a century, wetland archaeological research has been baulked by the 'cités lacustres' issue, which in reality only accounts for a tiny proportion of the mass of evidence (including wood, organic remains and other artefacts) recovered from sediments—often in a remarkable state of preservation—below lake and groundwater levels. Unfortunately, these important environments have been exploited without hindrance and are now very scarce.

French prehistorians adopt strongly contrasting standpoints regarding this valuable resource: on the one hand, there are those who wish to take advantage of the considerable funds available for large projects and rescue excavations and who thus continue to recover, frequently rather hastily, valuable material whose potential is not developed; on the other, there are those who are concerned with the protection of these precious archaeological sites and whose main concern is the conservation of settlement sites in an amphibious environment, limiting themselves to small area excavations, responding to a challenge for which 'all or nothing' recovery is inappropriate. The research carried out by the Centre National de la Recherche Scientifique (CRA/ERA 12, and UMR 9946/Laboratoire de Chrono-Ecologie) falls clearly into the second category (Pétrequin 1986, 1989).

Beginning in 1970, analysis of evidence from trial excavations showed that the shores of two small neighbouring lakes, Chalain and Clairvaux, contained an extremely rich archaeological zone, with a provisional total of nine settlement sites at Clairvaux and fifteen at Chalain (some of the shore-line has yet to be surveyed), representing over seventy house-building phases, spread over a very long chronology, stretching from 5000 to 700 BC. Well-conserved evidence, a large number of settlements, the richness of the archaeological record and the expansion of sedimentary horizons all indicate that these two lakes constitute, without doubt, one of the few European examples where a long-term project is feasible, in an area which has so far been relatively un-affected by shore-line development such as harbours, beaches, consolidation of banks, or building in the immediate hinterland. The Sous-Direction de 1'Archéologie (Ministère de la Culture) obtained listing and protection from the Monuments Historiques for the northern part of Lake Clairvaux and the whole of the western shore of Lake Chalain.

However, viewed from another angle, part of two lakes which have considerable tourist potential have been designated as protected archaeological sites, in an area where trading and hotel revenues depend on a short tourist season. Clearly, part of the tourist potential has been frozen by archaeologists, who have invoked the strongest legislation that exists in France for the protection of heritage.

FROM INDIFFERENCE TO HOSTILITY

Between 1970 and 1980 archaeological work in the area had very little public impact. It was restricted to work on peaty peninsulae in Lake Clairvaux, accessible only by boat. For their part the specialists did not have the resources to publicize their activities (these were restricted to a handful of small exhibitions and specialist publications). There were rare contacts with one or two amateur archaeologists and with Clairvaux Council who, from 1972, took the view that archaeological sites were, quite manifestly, an unhelpful brake on tourist expansion as the whole of the northern part of the lake could no longer be developed or landscaped to provide beaches, car parks and camp-sites. Therefore the policy of the Council was, for twelve years, to undertake minor developments permitted on the fringe of the archaeological area, followed by partial, and illegal, backfilling which effectively nibbled away at the Monuments Historiques protected area. At best there was total indifference, since the Council was interested in direct short-term returns. The protective legislation could, in the main, be successfully applied only because the archaeologists were working on shores as yet undeveloped for water sports. There was, as yet, no open hostility between the two different perceptions of the same reality: a shore-line and marshland valuable in archaeological and environmental terms, on the one hand, and a foul-smelling marsh which could be quickly backfilled to turn over tourist revenue, on the other.

The situation evolved rapidly, once the excavation and protection programme was extended to Lake Chalain from 1985 onwards. Despite the Monuments Historiques' listing of two important archaeological sites from 1911 (protection which remained unenforced because the shore-line was little visited), hundreds of tourists and inhabitants of the Jura (a figure which could rise to 1,000 or 2,000 on fine days), had become accustomed to bathing on the chalky lake beaches and on exposed archaeological levels. In the first year (1985), the arrival of a team of archaeologists for a short period of work led to curiosity or indifference, because the expectations of lake users were not challenged. In 1986 the area affected by testing and excavation was extended to 100 metres of shore-line (out of 800 metres of 'archaeological shore' where bathing was still allowed, despite damage caused by trampling). The lake users on the western shore of Lake Chalain began to realize that archaeology was going to come into head-on conflict with their view of the future of the lake and vehement newspaper coverage ('The Battle of the Beaches', 'The Stone

Axe Head, Weapon of the Moment') gave vent to the differing viewpoints. Until 1990 it was only the concerted efforts of the public services (Ministère de la Culture, Sous-Direction de 1'Archéologie, Direction des Affaires Culturelles, Service Regional des Monuments Historiques, Préfecture du Jura, Municipalité de Marigny, SIVOM [Syndicat Intercommunal a Vocation Mixte] de Clairvaux), which managed to counter an opposition which favoured the vandalism of archaeological sites and condemned archaeological remains to rapid destruction. Prehistorians and museum staff for their part stepped up their daily visits to the site, gave talks, produced publications for a wider public (Pétrequin and Pétrequin 1988) and set up local exhibitions.

Out of this inflamed climate—which was hardly conducive to research—emerged a set of initiatives, attempting both to protect the prehistoric archaeological record and improve relations with the public. The whole of the western shore of Lake Chalain was listed by the Monuments Historiques and, once the plots of land concerned had been acquired by the Council, the most sensitive areas were protected by a link fence. At the same time a new beach was established at Doucier for the general public, on part of the shore-line already studied by archaeologists, and a Council-owned building (La Maison des Lacs at Marigny) was refurbished to house archaeological exhibitions during the summer—a considerable undertaking financed by the Département du Jura and the Ministère de la Culture.

AN AREA OF CONTACT BETWEEN THE PUBLIC AND ARCHAEOLOGISTS—A TRIAL PROJECT

There was a chance that opposition to archaeological research might be reduced by the early creation of an interface where archaeologists and the public could meet. From 1986, when excavations at Lake Chalain resumed, an experimental archaeology project was resurrected, to build full-scale neolithic houses in as much as they could be reconstituted from recent excavated evidence (Pétrequin and Pétrequin 1988). The intention was to build two houses, not improbable replicas, but rather experimental models to test hypotheses concerning architecture and wood-working techniques. Marigny Council, owners of part of the Lake Chalain shore judged, quite correctly, that such a project would encourage 'cultural' tourism, on a natural shore-line which could no longer be developed for beaches and hotels because of the listing of Lake Chalain as a natural site (for its lake shore) and as a Monuments Historiques site (for the archaeological record it contained). Both perceptions (archaeological and touristic) found themselves temporarily in accord (experimental approaches, on the one hand, centre of attraction for the public, on the other).

As a consequence, a fairly modest project was launched in the summer of 1988, by and for archaeologists, with the building of two neolithic houses with raised floors (Figure 15.2) (Pétrequin 1991); several items were tested: the felling

and dressing of timber with stone axes (although, subsequently modern tools were used to prepare most of the larger structural elements); manual sinking of the posts into the soft lakeside chalk; assembly using vegetal ties; thatching with reeds cut with flint tools; building in stages in the appropriate seasons and, finally, long-term use of the two buildings as a habitation, a storeroom for cereal crops and domestic activities, over a period of two years (Figure 15.3).

Concurrently, exhibitions on the Neolithic and on lake dwellings were regularly organized, with visits arranged to the excavation site and experimental houses. The total cost of the project was small (grants from the Ministère de la Culture and Jura tourist authority) and required only the seasonal employment of two part-time guides. Despite the absence of publicity for the project, visitor numbers to the site during the summer were encouraging (about 2,000 to 3,000). This total received a considerable boost (3,700 visitors in 1995) following an agreement between the local education authority (Franche-Comté) and the museum at Lons-Le-Saunier, to organize visits for primary schoolchildren. These visits were largely seen as days out of school rather than part of the curriculum—the archaeologists were infrequently involved. The visits took in the museum, the archaeological site of Lake Chalain and a recently created auroch breeding station (Guintard 1994).



Figure 15.2 Aerial view of the experimental archaeology area at Chalain. Two houses with raised floors have been reconstructed; part of the work was carried out using neolithic technology. The siting of villages on soils subject to flooding, some way from dry land, may well have been to make use of marshy ground as a natural defence, with timber walkways providing sole access. (Photo P.Pétrequin)



Figure 15.3 Experimental buildings, based on the Neolithic village of Clairvaux-les-Lacs, dating to the fourth millennium BC. The posts in the foreground represent the plans of foundations as recovered through excavation. (Photo P.Pétrequin)

This trial project made it possible to evaluate a joint archaeological/tourist project and also to establish that the venture could not pay for itself. It soon became clear that only trained archaeologists (expensive in terms of labour costs) could reply to visitors' questions with competence and conviction, whereas seasonal guides (on low salaries and frequently without qualifications) could only reply in a limited and rote-learned manner. The aim of these educational visits, initially organized by a local club, subsequently by Lons-Le-Saunier museum, was to take full advantage of a remarkably rich environment (the band of shore-line biology) (Figure 15.4), a theatrical back-drop (two experimental houses) and research on everyday life and craft activity in the Neolithic period, in order to convey the equilibrium between natural, technical and social environments, as necessary in the neolithic as it is today. Clearly such a complex theme, led by specialized archaeological research and simplified for rapid presentation, could only be

understood if it was explained by staff with a good theoretical and practical grasp; whereas most of the part-time guides did not always have the right training to communicate to the general public, in a mediated form, the concept of global equilibrium and social and ecological systems.

Finally, through the use of questionnaires and statistics, this trial project gave an insight into the expectations of the public, and of their perceptions: many were 'disorientated', so great is the gap between the shifting archaeological reality of today and teaching programmes received at school; twenty to twenty-five years elapse before a 'new' discovery reaches school textbooks. Examples of this may be found in shifting chronologies, the appearance of social ranking or the appearance of new technologies. However, nearly all visitors were fascinated



Figure 15.4 Aerial view of the western end of Lake Chalain. This impressive landscape of lake chalk beaches is a rare European example of the environment in which neolithic and Bronze Age lakeside villages were built. (Photo P.Pétrequin)

whenever they had a chance to see demonstrations of neolithic technology and understand the resulting social and environmental change.

ARCHAEOLOGICAL 'REALITY' AND SOCIAL 'PERCEPTIONS'

As was noted above, archaeological knowledge changes; the notion of the 'cité lacustre' has evolved considerably in the last century (and we must hope that we are now closer to the reality of the past). For many visitors, presenting complex architectural models in the context of changing ideas and theories is something of a problem, social perceptions are slow to change (in particular away from the 'cité lacustre' as a symbol in popular imagination). In these terms, the visitor who seeks confirmation of received truth is bound to be disappointed. However, the idea of change and dynamics is much easier to get across through craft technology and everyday life, rather than through architecture. The two house reconstructions are no more than a theatrical backdrop, inadequately reflecting the hypotheses developed by prehistorians and their reinterpretation as social myth in the context of the school environment and simplistic literature.

During the three months that it took to build the experimental houses, the public had direct access to neolithic technology (felling with stone axes, preparation of timber, harvesting cereals, making pottery, construction techniques, and so on), whose efficiency they could appreciate in terms of time and motion, organization of society and use of the environment. During this time visitors could also talk with archaeologists who could reply to all manner of questions relating to their subject, where necessary by practical demonstration rather than as a part of long theoretical discourse.

Following the building of experimental houses, the prehistorians returned to their fieldwork; public visits were then devolved to non-specialist guides who were not able to answer those questions which went beyond their prepared text. When the archaeologists left the site, the architectural reconstructions became lifeless: they became a decorated facade, poorly lit by inadequate presentation, where no attempt was made to reconcile the provisional and rapidly shifting image of advanced research and the successive slowly evolving clichés which underpin social perception (Lemonnier 1986:179).

FACING UP TO LACK OF FINANCIAL VIABILITY—THE PARTING OF THE WAYS

The trial project of the two neolithic houses at Chalain demonstrated, if indeed this were ever necessary, that the link between scientific research and a project for the general public cannot be broken without consequences. Presenting a finished and pre-digested 'product' for the public, in the absence of communication between visitors and scientific partners, inevitably results in low heuristic value, but high socially conditioned interpretation; in this way, received ideas are reinforced, and the 'cité lacustre' is likely to re-emerge as a regional or national symbol (a central attraction), not unlike the Nazi-inspired building of Unteruhldingen on Lake Constance (and see Schmidt, Chapter 9; Sommer, Chapter 10). This is not the way the scientific community wishes to operate.

Following on from the trial project, a more ambitious project, bringing together culture and tourism at Chalain, was examined, at the request of the Préfecture and the Department of the Jura, by two project design consultants. The conclusions of these two studies were broadly similar, based on a theoretical survey of the market and estimation of running costs. In a package which included the reconstruction of a village containing six houses and the creation of a large permanent exhibition centre near the archaeological site, several tens of thousands of visitors a year would be needed to offset operating costs. Costs could be saved by reducing staff numbers, and in particular by dispensing with the services of archaeologists.

The instigator of the tourist project, the Clairvaux SIVOM, had already started to buy the archaeological areas (with a 50 per cent subsidy from the state) which, in theory, would ensure the protection of the site. However, it was now clear that the interests of the SIVOM and the state (the archaeological services) diverged: on the one hand, short-term profitability, where archaeological imperatives and the sensitive nature of the sites and their environments are not recognized; on the other, the will to put the interests of the site first. The opening of the Chalain site, once it was protected, the emphasis on small group visits and experimental archaeology, all this had been perhaps a modest solution, yet quite satisfactory at the level of communicating ongoing research work. Here was an effective way of protecting heritage and informing the public.

This inexpensive solution was countered, in 1993, with a very expensive and profit-orientated project, designed to satisfy the demands of mass tourism, for the short-term interest of local bodies and traders: neither the archaeological sites, nor the fragile environment of the lakeside, were suited to this scheme. The archaeologists had not yet won the argument concerning the risks to the archaeological sites from poorly managed tourism.

In launching a purely commercial venture which would project (consciously or unconsciously) a simplistic archaeological concept (the myth of the 'cité lacustre'), the option of managing without archaeologists apparently was a serious one despite the latter being the only people capable of interpreting the archaeological record to the general public.

In these circumstances one could only hope that this venture would rapidly abort, rather than transmit fixed images of the past emanating from stultified thinking. Accepting a purely commercial venture of this kind could only be at

the expense of the shore-line settlements which should be protected; promoting such a project would be to delude the public—any scientific endorsement would also be highly suspect. Yet, inaction at Chalain was also risky. The prime consideration had to be the conservation of the important archaeological and natural sites; yet they were bound to be lost to those who wished to use 'natural' beaches, to extract a profit from holidaymakers, and, nowadays, the promoters of mass tourism. Archaeological sites were to be conceived as products which could be sold in an expanding market (Thuillier 1994), in a context where the State preferred to take a backseat and to delegate responsibility to other agencies, including those driven by profit.

TOWARDS A PROJECT DIRECTED BY THE MUSÉES DE FRANCE

In 1995 the cultural and tourist project at Chalain was once again removed to the drawing board, following the nomination of the curator of the archaeological museum at Lons-le-Saunier as director of the project. The current aim is to twin the museum at Lons-le-Saunier, where the archaeological material is housed, with the site at Chalain from where the material comes. An agreement is currently being prepared between the communes of Clairvaux-les-Lacs (as manager of the project), the region of Franche-Comté (official supervision of the excavations and conservation of the sites), the Conseil Général of the Jura [county council] (as promoter of tourism), the Centre National de la Recherche Scientifique (CNRS), the University of Franche-Comté, the Centre de Recherches Archéologiques de la Vallée de 1'Ain (the prime mover of the project and responsible for its archaeological content), the town of Lons-le-Saunier (owner of the museum which will house the archaeological material) and the Commune of Marigny (legal owner of the excavated material). All the signatories should undertake to pool their resources:

- to conserve the sites at Chalain (which have been listed as archaeological sites of national importance);
- to promote scientific research; and
- to provide a public dimension in the context of regional tourist development.

The French museum service (Musées de France) have now appointed a project co-ordinator to represent all the above parties.

Building work started in 1997 on an interpretation centre; the curator of Lons-le-Saunier museum, in consultation with the archaeologists working on the site, is responsible for the educational presentation and the organization of temporary exhibitions. The reconstruction of a neolithic hamlet of five to six houses is now underway. Furthermore, the regional directorate of the Monuments Historiques in 1995 completed consolidation work on the shore-line at Chalain to combat the erosion which was rapidly destroying the archaeological sites.

Conditions now exist to allow the public limited access to the protected archaeological area—on footpaths. It remains to be seen how such a structurally complex project will work out in practice. The main unknown factor concerns the number, background and quality of the personnel who will interpret the archaeology, the exhibitions and the reconstructions.

REFERENCES

Arnold, B. 1990. Cortaillod-Est et les villages du lac de Neuchâtel au Bronze final Saint-Blaise: Ruau.

Bocquet, A. and A.Houot. 1982. La vie au Néolithique, Charavines, un village au bord d'un lac, il y a 5000 ans... Histoire et Archéologie, Les Dossiers 64.

Coles, B. and J.Coles 1989. People of the Wetlands: bogs, bodies and lake-dwellers. London: Thames & Hudson.

Eder, K. and Trumpy, K. 1979. Wie die Pfahlbauten allgemein bekannt wurden. *Archäologie der Schweiz* 2, 33–9.

Guintard, C. 1994. L'aurochs reconstitué, un descendant de Bos primigenius? In Aurochs. Le Retour. Aurochs, vaches et autres bovins de la préhistoire a nos jours, 179–96. Lons-le-Saunier: Centre Jurassien du Patrimoine.

Keller, F. 1854. Die keltischen Pfahlbauten in der Schweizerseen. Mitteilung Antiquarischen Gesellschaft Zürich 9.

Lemonnier, P. 1986. The study of material culture today: toward an anthropology of technical systems. *Journal of Anthropological Archaeology* 5, 147–86.

Paret, O. 1958. Le mythe des cités lacustres. Paris: Dunod.

Pétrequin, P. 1984. Gens de l'eau, gens de la terre. Paris: Hachette.

Pétrequin, P. (ed.) 1986. Les sites littoraux néolithiques de Clairvaux-les-Lacs (Jura). I, Problématique générale, L'example de la station III. Paris: Maison des Sciences de 1'Homme.

Pétrequin, P. (ed.) 1989. Les sites littoraux néolithiques de Clairvaux-les-Lacs (Jura) II, Le Néolithique moyen. Paris: Maison des Sciences de 1'Homme.

Pétrequin, P. (ed.) 1991. Construire une maison, 3000 av. J.-C. Paris: Errance.

Pétrequin, A.-M. and P.Pétrequin 1988. Le Néolithique des lacs. Préhistorire des lacs de Chalain et de Clairvaux (4000-2000 av. J.-C.). Paris: Errance.

Reinerth, H. 1977. Pfahlbauten am Bodensee. Uberlingen am Bodensee: A. Feyel.

Schöbel, G. 1993. Die Pfahlbauten von Unteruhldigen, Plattform.

Stocker, E. 1976. Die grosse Zeit der Buchauer Ausgrabungen. Bad Buchau: Sandmeir & Sohn .

Strahm, C. 1975. Nouvelles reflexions sur un vieux problème. *Eburodunum* I, 157–63. Thuillier, J. 1994. L'Ingéniere culturelle. *Revue de l'Art* 103, 5–9.

Vogt, E. 1954. Pfahlbaustudien. *Das Pfahlbauproblem*. Schaffhausen, Schweizerische Gesellschaft für Urgeschichte: 119–219.

16 The Ancient Technology Centre, Cranborne, UK: a reconstruction site built for education

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INTRODUCTION

This chapter discusses the work of the Ancient Technology Centre (ATC) which, over the last decade, has been built by, and for, the children of Dorset in southern England, as part of their formal, albeit somewhat unconventional, curriculum work.

THE CONTEXT: EDUCATION

Institutionalized education, available as a right to all young citizens, is, despite the basic need to learn in order to survive (see e.g. Donaldson 1978; Diamond 1992), a relatively new phenomenon and has only spread across the world as a principle adopted by governments during the last century. Now, most young people—or such is the ideal—spend up to a decade or more in school being educated. The process, and the content of the curriculum, however, vary widely and it is not unreasonable to question why children go to school. In Britain, there has been disagreement between the political parties until recently about the true purpose of education. One view regards formal education as a matter of delivering an agreed body of testable knowledge which may qualify the individual for an appropriate later career. An alternative view, not necessarily incompatible with the first, sees education primarily as a process concerned with enabling the individual to achieve full potential. The emphasis in the first view focuses on information and its cost-effective delivery. The second focuses on what a person needs to learn and how that learning is best accomplished. Pupils themselves, probably reflecting adult concerns about high unemployment, tend to say they are in school to help them find a job.

Most countries have a complex educational system reflecting a variety of historical initiatives and sources of funding, some public, some private, some doctrinal. Britain is no exception, but its schools have experienced unprecedented

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change during the last five years owing to a series of radical education policies initiated by a succession of Conservative governments. This is not the place to describe these policies in full. The three changes most relevant to this chapter have been (a) the introduction of a compulsory, heavily prescribed National Curriculum; (b) the reduction in the power and influence of the Local Education Authorities (LEAs) which control the budgets of each school within the counties and boroughs of England; and (c) the consequent requirement that special education services, formally provided by LEAs, should become essentially self-funding. These services, which included outdoor education, museum education, theatre-in-education, peripatetic music, information technology and specialist advisory teachers, were often at the cutting edge of developing educational strategy and good practice.

In 1984 the education system had sufficient flexibility to be able to support the grass-roots initiative described below. The conditions which allowed for the launch of the Ancient Technology Centre would be hard to find today.

THE CONTEXT: EXPERIMENTAL ARCHAEOLOGY

Education as a right for every child has had a short history. So has archaeology: it was only a little more than a century ago that 'in the majority of minds the great antiquity of Man was little more than a disturbing rumour' (Coles 1979:2). There is a need for educators and archaeologists to work together because:

- the archaeological heritage is rapidly being destroyed, often unknowingly and, without educating the public, its value cannot be recognized or safeguarded.
- there is strong public interest in archaeology, stimulated by stories and films about buried treasure and by popular television programmes. Education is needed to distinguish between fact and fantasy, and to offset a common misapprehension that archaeology is chiefly concerned with digging up valuable antiquities.
- archaeology can reveal evidence of the entire past which may be of considerable service to us in the present.

The best way to educate children about archaeology in a non-destructive way is through practical activities which they enjoy. Coles (1979: Preface) points to '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 defines experimental archaeology as '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'. It all depends on 'setting the question', which is 'the one basic and underlying determinant for all experiments' (ibid.: 36). Given the appropriate briefing and a sensible age group (not much younger than 8 years for the following

example), there is no reason why firing pottery should not be used to introduce the notion of the fair test and scientific method.

An experiment such as firing pots in a kiln in order to see what methods and kilns could have been used in the past can be truly experimental in that different trials can be made, the conditions and temperature in the kiln can be accurately monitored and recorded, and variations can be controlled.

(Hodder 1982:29)

Coles identifies three levels of experimentation. First is *simulation* in which a copy is made of an artefact or a building 'reconstructed' with no particular attempt being made to use appropriate tools, techniques or materials. Such simulations can have educational value by both interesting and involving children (Coles 1979:36). The second level is concerned with testing for the *process and production* methods used in the past. This, also, given an appropriate level of task for the age group concerned, can involve children. The third level is concerned with *the function* of the artefact, that is the use to which the object is presumed to have been put. When coppicing for timber during the winter months, for example, pupils have the opportunity to use a copy of a neolithic flaked axe, made by an expert flint knapper, to cut down birch trees and hazel poles to compare the effectiveness of Stone Age and modern tools.

THE DEVELOPMENT OF THE CENTRE

In 1984 I was teaching Craft, Design and Technology (CDT) in a rural school in southern England catering for children of 9 to 13 years. I applied for funds from the national Schools Curriculum Development Committee (SCDC) to build a 7.5 m diameter Iron Age-style roundhouse in the grounds of the school. My intention was not only to provide challenging work for my pupils, but also to create a building which would serve in future as a base for experimental archaeology and other humanities work of a practical nature.

The project was inspired by the constant requests from children for more time to work on their designing and making activities, started in CDT lessons but invariably interrupted at the period of maximum creativity by the end of the lesson. Teaching in this subject, in which motivation is never a problem, had caused me to believe that the curriculum—at least for this age group—would be better balanced by introducing more active methods of learning. Additionally, as so much of school work was devoted to exercises, models and pretend versions of reality, I believed it would be of great benefit if children could construct a *real* building that would subsequently be used. Studying a partially completed roundhouse at Butser Ancient Farm (see Reynolds, Chapter 7) persuaded me that such an activity could be tackled satisfactorily and safely with young children.

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SCDC provided a grant of £500 for materials. Cutting the required timber and preparing the site took place over the winter months. When a start was made on digging the perimeter ditch and bank, it soon became clear that, despite rain, the majority of children, both male and female, were more than eager to be involved in the hard physical work involved. Current research into coronary prevention in children (Armstrong et al. 1990; Armstrong and McManus 1994) suggests that, for many pupils, physical exercise and games lessons do not provide sufficient exercise to overcome the cumulative effects of sitting down at desks for most of each school day. The opportunity to co-operate in pitching strength and ingenuity against a problem that effort and determination can conquer is a need strongly felt by children, but neglected in conventional schooling. Rewards for intellectual endeavour are elusive for many, but pupils of every kind of ability value the growing sense of achievement to be gained by triumphing over a 'real' challenge. It is important, too, that teachers, in a job that rarely gives them positive rewards, should be able to participate with children, and parents if possible, in the adventure and fun of such a challenge.

The building of the roundhouse proved to be highly successful and rewarding and revealed the resourcefulness and capability of many children whose talents had been unnoticed in their more conventional lessons. The project attracted wide attention, not just in the local community and from neighbouring schools, but also nationally. In 1986, by which time the round-house had been completed for six months, the Local Education Authority recognized the value of the resource to other schools by allocating half my timetable during the spring and summer terms to serving visiting education groups wishing to study prehistory in a practical way.

When, in October 1986, the building was destroyed by fire, the true impact of the achievements of the previous two years on the children and their families became clear. Within three weeks a large sum of money had been raised through the initiative of many separate groups of children to build a replacement roundhouse which was to be bigger and better than the one so disastrously lost. The winter months were again spent gathering materials—this time the reed for thatching was cut by hand as well as the timber—and the next fifteen months occupied in building the grand new edifice. The second roundhouse (this one 10 metres in diameter) was built not only by children, staff and parents of the school, but also by interested archaeologists and visiting pupils from many other Dorset schools (Figure 16.1).

The purpose of all this work was identified at this stage as being to establish an outdoor education centre which would:

- provide a learning environment in which children can explore in a practical
 way the means by which human beings from the earliest times have
 discovered how to survive;
- enable pupils to explore the materials available in the local environment, in the ground, in the woods and fields and through trade in antiquity, and



Figure 16.1 Construction of the main roundhouse

to study the way in which developing technologies provide new and usually less arduous solutions to everyday problems;

- channel the great interest young children have in constructing camps and shelters, making tools, shaping clay, preparing food and cooking with fire into an appreciation of the way our ancestors organized their lives;
- develop respect for the ingenuity and skill shared by people living in distant times and in places today where technology is different from our own;
- stimulate an interest in more formal study from literature and from artefacts in museums by enabling children to try out and make, for example, tools, pottery, clothing, footwear, jewellery, storage containers, and buildings;
- recapture a little of the power of story telling and music in a group situation where electricity and appliances associated with it are absent;
- provide the means for older children to develop and test scientific
 hypotheses derived from archaeological evidence, for example, concerning
 the use of a tool, the firing of pottery, the dyeing of vegetable fibres, or
 the growing of crops;
- provide a resource to facilitate an integrated approach to humanities, science, environmental studies and technology;
- offer an ongoing programme of exciting projects which challenge the imagination and require physical effort, which serve to build confidence and capability in those who participate;

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• provide a resource which may, by virtue of its inspirational qualities, serve to make children more sensitive to each other, the local environment and the need to care about these things because they are vulnerable.

(Keen 1989: np)

By the time the second roundhouse had been completed in the summer of 1988 most of the above aims were being met and many more schools were requesting visits. The LEA, which hitherto had managed the project under the Creative, Physical and Aesthetic branch of the Advisory service, now formally adopted what had up to this time been a school project as the newest of Dorset's seven Outdoor Education Service Centres. Thus the Ancient Technology Centre, in becoming separated from the school which had given it birth, entered its third phase of management.

Meanwhile, the scope of the activities available to children had evolved as the site developed. The programme of building 'ancient' structures proceeded apace, the aim being to throw light on the excavated remains of specific buildings and the materials and techniques that might have been employed in their construction. As these shelters became available they were used to house different kinds of craft activities—cooking, blacksmithing, pottery, smelting, working with fibres, and so on. To date, thirteen buildings, together with earthworks, fences, kilns, ovens, lathes, looms, and many other artefacts, have been constructed on the site by the cumulative efforts of over 50,000 pupils. Each structure has been built to solve a new set of problems: to interpret the evidence from a particular excavation or to explore a technique used in vernacular architecture. The collection of buildings as a whole does not represent a known or possible settlement from any one period in history.

Outreach work for the Outdoor Education Service sometimes involves the Centre's staff working off-site helping children build structures in their own school grounds or at other educational centres. Fourteen small round-houses, ranging from 3 to 6 metres in diameter have been constructed in this way, enabling pupils to 'own', care for and develop their own projects. This type of development has been made easier through a successful initiative to make schools aware of the learning potential of school grounds (Adams 1992).

A TYPICAL DAY VISIT TO THE ATC

The National Curriculum requires that children study certain historical periods at particular stages of their school career. In the early days of the Centre's development, before the implementation of the curriculum changes, most visiting pupils were in the 11 to 13 age range. Now that the study of the early invaders and settlers of Britain (the main pretext for visits to the Centre) focuses chiefly on Key Stage 2, most children using the facilities are younger—usually between

7 and 11 years old. The chief result of this has been that the activities selected are shorter and less ambitious.

Although there is a considerable range of possibilities, most schools choose a summer programme (April-October) similar to the one below, chosen for a class of 8 year olds learning about Britain as the Romans might have found it. The daylong programme begins with a classroom-based session where I discuss with the children how we can find out about the past before written evidence. I introduce them to the type of materials that survive to provide information about the distant past and how we can infer about materials which do not usually survive. During this session the children handle a number of ancient artefacts and discuss what such objects can tell us about the people who made them.

The pupils are then taken on a tour of the site. We explain how and why the buildings were erected, what we were trying to discover, and the archaeological evidence on which the buildings was based. The tour finishes in the large roundhouse where I explain when such houses were built and what—and how—we know of their builders. This is followed by a short time when we listen in silence to the sounds of the late twentieth century. (Almost invariably the distant noise of aircraft, traffic or farm machinery can be heard behind the closer sounds of, for example, the fire crackling, birds singing, the wind in the thatch.) We briefly reflect on how life has changed for humans since prehistory: now we buy almost everything we use and scarcely know how anything is made. Then perhaps the opposite was true. This introduction which lasts about an hour, always stimulates a torrent of questions about the roundhouse, the things in it and the missing people who once dwelt in such homes.

The children are then divided into groups of seven or eight to carry out four activities (for further information about these and other activities carried out at the ATC see Keen 1996). Each child participates in all four activities and lunch is taken after two activities.

- Blacksmithing: The children make a replica knife, sickle or spoon-bit with the resident blacksmith.
- Archaeology: The children remove topsoil from the site of a new building. They scrape the ground in layers, sieving, washing and identifying objects made, altered or introduced by human activity.
- Cob walling: The children dig and break up chalk, the local bedrock, mixing it with straw and water to form *cob*—a material used to build walls (Figure 16.2).
- Grinding corn: Working with saddle and rotary querns the children produce flour and make dough. At appropriate times of the year this group also plough with an ard or thresh and winnow grain.

The whole class then join together to empty the clay oven prior to baking. They use the embers to prepare charcoal (for the next day's blacksmithing groups) and together apply the cob mixture they have made to the walls of whatever structure is being built.

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Figure 16.2 Children applying daub

The children then clean up and return to the roundhouse to take their bread out of the oven and eat it. While they are doing this I frequently tell them an appropriate story (see Maddern 1992) or answer further questions they have. Finally I demonstrate how to make a shale bracelet on the pole lathe—one of the earliest machines. My last job is frequently to help visiting teachers extricate children who do not wish to leave!

The winter programme (November—March) is more energetic as it is too cold for many of the above activities to be carried out. The morning usually consists of coppicing hazel for building projects and helping with conservation at a local nature reserve. The afternoon is occupied with a tour of the Centre, exploring the buildings, making fire by friction or by striking marcasite with flint, telling stories and answering questions round

a blazing fire, and by using the coppiced timber for building fences or for making hurdles.

THE PERCEIVED VALUE OF THE ATC

A child, class teacher, and a schools' inspector describe what they found worthwhile in a day visit.

The child's letter (spelling corrected)

11.10.96

St Mary's First School Charminster

To Reg and Jake, I really, really loved our trip. I thought it was the best day in my life. I don't think we will ever, ever go on a better trip. We've made a display of the things we did, and I wrote a whole page on A4 paper about chalk grinding, and a picture too. Tell Reg I thought I would never, ever have a more exiting experience ever. I loved the blacksmithing. My mum said that she'd never been black-smithing that way, dad hadn't either. Lots of people said they hadn't. By the way, the bread was delicious. My house is mostly made of cob, chalk cob. I think that corn grinding is very difficult. I don't think I want to do that again. After that and [for] a couple of days (and nights) as well, I had arm ache. But as well as that, it was just as much fun as all the rest of the activities. The archaeological dig, it was brilliant. I think it was brilliant because I found a piece of Roman pottery. That was really exiting, and I didn't think it was anything anyway. Thank you both so much for letting us take the spearhead, knife and axe.

Thank you millions and millions for everything. Chalk grinding was fun and cob wall making. By the way give thanks to the bakery for the dough, as well.

Thanks a lot.

Abi

The class teacher

To fan the ember of interest in history into a flame the majority of children need to see that the past is still around them and that we are a product of that past. Young children (our school goes up to 9 years)

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need concrete experiences in order to come to understand abstract ideas. Therefore, this has important implications for our approach to history teaching. The Ancient Technology Centre has a vital role in providing the concrete experiences of the past. It is only after visiting a place like it that a history book can then take on its role for young children ... 'We did that!' 'Look that Celtic man is doing what we did,' and so on. 'Experience enriches understanding' sums up your Centre—'Phew! The Celts had to work really hard just for their bread. I'm glad we've got Gateways [a supermarket],' (child grinding wheat) 'I'm getting the hang of it now, but it's hard work. I'm glad we don't have to do it like this now' (child grinding); They [the Celts] must have been very clever to do all those things and they had to build their own houses too' (child on bus going home). I think these young 9 year olds are showing an appreciation of history that cannot be obtained from a history book at so young an age. The children have also appreciated that the Centre is not about the past, because they have started to question what they see in history books—'I wonder how they really rolled those stones, because it looks dangerous!' (noticing the Egyptian picture of the pyramids), 'I wonder if they really did it like that because you could do it much better with lots of horses?' (looking at stones being pulled by people to build Stonehenge). The children, in their discussion about the Celts, talk as though they had met them.

C J Roberts

Shaftesbury 1st School.

The schools' inspector

To witness a quality learning experience for children is an exciting event. There is a buzz in the atmosphere, a sense of purpose and interest, concentration, rigour and at the same time satisfaction and fulfilment. In my first visit to the Ancient Technology Centre to observe a group of primary-aged children involved in coming to terms with the complex relationship between people and their environment, I came quickly to the understanding that this was a place where children experienced such quality. The leadership was excellent, as were the relationships and the quality of preparation and planning. The visible achievements on the site plus the active involvement of children combine to make a quite remarkable educational stimulus for learning.

In the morning, the children were involved in practical activities which gave them first-hand experience of the relationships and fine balance that exists between conservation and ways in which natural materials can be used to enhance the quality of life. Children became forestry workers, involved in coppicing, clearing overgrown woodland to rejuvenate the environment needed by birds, animals and plants, and building workers involved in wattling, using the wood cut to make fencing. The sense of purpose in the whole enterprise was inspiring and the willingness of the children to take responsibility, to co-operate, to come to terms with work procedures and issues of safety were impressive. There was obvious achievement and satisfaction summed up by one child who said 'This is magic' as another tree fell.

Later in the day, the children sat and observed the inside of an Iron Age Hut, lit a fire and imagined what it would have been like to live all those years ago. Tools, made to original specification in natural materials, and animal husbandry, added further quality to the experience. The children marvelled at the nature of human achievement and had the opportunity, first hand, to explore the idea that motivation to satisfy human need was as powerful then as it is today in the development of new technology.

This was a learning experience which stands on its own. The children's teachers with the guidance of the leadership of the Centre had conspired to make it much more. The stimulus was used to promote learning in all areas of the formal curriculum and as a focus to enable children to further develop their sense of values, attitudes towards others and to their environment. So special was the quality of the experience provided by the Ancient Technology Centre that one would wish it to be available to all children.

Harry Turner Inspector, Primary Education

MANAGEMENT ISSUES

The local authority has struggled for a decade to finance the ATC during a period of substantial annual cuts to LEA budgets. This process has highlighted a number of interrelated issues which may be of concern to any organization attempting to develop a similar project.

Ethos

Dyer (1996:9), following Stone and Planel (1994:3), identifies the three main functions of reconstruction sites as 'public presentation and interpretation, education and research and experiment'. To these should be added commerce, at some sites a minor function while at others the principal one. But without a strong *raison d'être* besides commerce there is a danger that the needs of marketing overwhelm those of interpretation, education or research. For example,

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to attract visitors it might seem expedient to use an advertising slogan such as Visit an authentic Iron Age settlement and live as a Celt for a day'. The term 'authentic' implies that the product is genuine in some way. But authenticity may be far from the reality or the aspirations of those managing a reconstruction site if the main aims are to attract as many paying customers as possible. In such a case the emphasis may be on presenting aspects of the imagined past that cater for a taste for nostalgia or for the bizarre (for example, Iron Age snake pits, see Blockley, Chapter 1). Whether or not it is appropriate to call modern attempts to rediscover ancient methods 'authentic', there is a deeper sense in which choosing to seek authenticity—even though ultimately it may be an impossible quest—is valid. History invented to suit the predilections of heritage industry customers is dangerous because it may reinforce prejudices (see, for example, Schmidt, Chapter 9 and Sommer, Chapter 10).

Funding

There are three major issues related to funding. First, for nearly half a century in Britain each citizen has been entitled to free education. Now a crisis in funding affects all educational institutions from universities downwards. Each needs to find strategies to remain solvent or at least to afford essentials for teaching. State schools are required to employ qualified teachers, but some other organizations with an educational role have been replacing teachers with non-qualified instructors in order to save costs. Museums, heritage sites, country parks and outdoor education centres, any of which may incorporate reconstructions to help attract customers, often have difficulty in affording qualified staff. The alternative, to employ enthusiastic, but semi-trained instructors, reinforces the danger, mentioned above, of fiction substituting for fact.

Second, if it is assumed that technology has developed as humans have found easier and quicker ways of solving their practical problems, it could follow that attempting to rediscover ancient methods is time-consuming and arduous. The modern equation that time equals money puts further pressure on efforts to base educational work on the understanding of early technology. 'Cheating' by using modern equipment (for example, a chainsaw) to reduce the time spent on essential tasks is probably inevitable. However, the degree to which this is done may match the degree to which the instructor or researcher is ignorant of, or lacks expertise in, traditional skills—often the very focus for activities taking place at reconstructed sites.

Third, the appropriate materials for experimental or ancient technology (for example, green timber, good quality flint, raw hide or iron ore) cannot usually be obtained easily. Gathering such materials requires time, knowledge and a network of contacts. The process can have its own educational value because, although the harvesting of natural materials in a traditional way today is much neglected, it is often a necessary part of managing a threatened habitat for wildlife.

For example, children visiting the ATC in winter help to coppice timber or to cut reed at local nature reserves. This provides the timber for wattle buildings and fences and the reed for thatching while at the same time preserving the habitat for endangered birds and other species. The work teaches about the essential (but often forgotten in twentieth-century Britain) link between our lives, nature and the local environment.

Planning

Culleton (Chapter 4), in describing considerations taken into account in setting up the Irish National Heritage Park, discusses market research. In Ireland the majority of visitors wanted to spend no more than two and a half hours looking around reconstructions. The number of buildings constructed and the items placed within them were determined on this basis.

If the principal aim of a reconstruction site is to present for public inspection structures that resemble, in size and materials used, those of antiquity, it may not be necessary to investigate or reproduce the methods by which the original buildings were assembled. If, however, as at the ATC, the purpose of the site is to learn about how we can discover the past through archaeology, exploring such methods is fundamental to the learning process. Moreover, skill in making tools and applying them to materials, such as flint or bone, is not gained primarily by reading about them. Repeated practice is important to master such skills. It is recognized that material culture and its use represent only one aspect of the picture which the archaeologist is attempting to interpret. However, without the insights that experimentation can provide it may be impossible to assess the practicality of many interpretations of archaeological material or the economics of the processes involved. There are implications here not only for resourcing, as mentioned above, but also for planning, because the time taken to complete unfamiliar tasks is notoriously difficult to estimate. A conflict can develop between the pressure to economize, for example, conforming to well-tried methods is quicker and cheaper, and the need to explore less obvious (from a modern perspective) solutions to a practical problem—for example, how to keep water out of a building.

At the ATC, research (i.e., practical experiments at the appropriate level for the pupils concerned) is seen to be an essential part of the educational process. That process has resulted in the existence of, for want of a better term, a 'reconstruction' site. Interpreting the site as a way of trying to make sense of the past is also part of the educational process. Each building is interpreted in terms of the archaeological evidence on which it was based and the particular 'experiment' or 'problem' on which it was designed to throw light. The tour of the site, explaining each structure in this way, is used to stimulate questions and to introduce the activities which, to a greater or lesser degree depending on the pupils' age, are experimental: for example, how long would it take to grind enough corn on either a saddle quern or a rotary quern to make flour for a family's daily bread requirements?

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Safety

When children are entrusted into the care of teachers it is, of course, essential that they are properly looked after and not exposed to unnecessary hazards. Experimental archaeology involves unconventional activities derived from less safety-conscious times. The golden rule at the ATC is to assess each new project for potential risks, by mastering the techniques before involving children. Again, time needs to be set aside for the appropriate research.

The issue of safety cannot be compromised, but different cultures, even within Europe, define risks very differently. Whatever the perceived risk, a potential conflict can arise when a building designed to test, for example, a roofing technique is also visited or worked in on a regular basis. There is a tendency, even in 'experimental' buildings on reconstruction sites to 'play safe' and conform largely to well proven techniques. Thus the buildings on many of these sites resemble one another closely, one having influenced the methods used at the next. This conservatism *may* very well echo the actual conservatism of style and technique observed in the archaeological record: if something works it is safest to copy it. Equally it may not, with similarity between reconstruction sites being a reflection of modern, rather than ancient, conservatism.

CONCLUSION

British children watch an average of more than twenty hours of television each week. Most have no fireplaces in their homes (heating being provided by electricity, gas or oil). They grow up with no direct experience or understanding of how the products of their sophisticated, technologically advanced, world are made—how modern fabrics are created from oil and woven into cloth, how drink cans are wrought from metals derived from rock, or where most of their food comes from. The majority of 8 year olds, vividly remembering illustrations in story books, think flour is produced in windmills! Many are shocked to learn that the meat sealed in plastic on the shelves of super-markets is the flesh of farm animals. Pupils in school today have never known any other world. Most have grown up observing that adults, although great users of the technology we all now share, are not able to build, repair, or even understand large parts of it. Adults and children alike are often attracted but intimidated by new technology which may bring unanticipated changes to their lives. Earlier technologies appear to many to be attractive in a different way: they are reassuring and they make it easier to make sense of how we arrived at the present.

It is this attraction to old ways of living which provides the appeal of reconstruction sites. Nostalgia, the painful longing to return home to one's native land, to one's roots, has engaged the minds of philosophers from Ancient Greece onwards. City dwellers from the civilizations of Greece and Rome looked wistfully at what they imagined to be the simple life of their barbarian neighbours. Homer, Pliny and Xenophon, among the Greeks, idealized the Arcadians; Horace,

Virgil and Ovid regarded the Scythians in a similar light (see for example, Mynors 1969). A similar yearning for the primitive life enjoyed by the 'noble savage' occupied eighteenth- and nineteenth-century thinkers worried about the impact of industrialization on the world they knew (see for example, Piggott 1978; Rousseau [1762] 1991).

Reconstruction sites have been built in increasing numbers because people enjoy trying to imagine what the past was like. Although films and books may be able to create a fuller picture, a reconstruction site has the powerful advantage that you can get inside it—it is real. Other writers (see, for example, Schmidt, Chapter 9; Sommer, Chapter 10) have analysed the nature of this concocted 'reality', the extent to which it embodies current preoccupations and the degree to which it can ever inform us about the actual past.

Many reconstruction sites take seriously their attempt to do just this—to interpret the past, to educate their 'clients' about it and to discover more through research. The key to each of these ambitions is the evidence, drawn mainly from archaeology, without which no such site could claim credibility. As has been seen, various difficulties can limit the time or resources devoted to researching the evidence and some sites make a compromise between the 'serious' side of their work and the unashamedly popular 'entertainment' aspect. For example, a feature of the summer season at the reconstruction site of Hjerl Hede in Denmark (Keen 1986) is the presence of university students living in the reconstructed buildings and carrying out appropriate tasks such as knapping flint, making harpoons and fishing. To date, little evidence has been found for what neolithic people might have worn in the summer and the crowds of visitors could be forgiven for concluding it was nothing at all! Lejre (Rasmussen and Grønnow, Chapter 8) also has summer volunteers but, in line with its policy of interpretation based only on evidence, does not allow dressing up unless supported by clear archaeological evidence. At the ATC, visiting groups wear outdoor clothes suitable for dirty work, but are not encouraged to pretend that they are 'being' Celts, Romans, or Saxons unless role play or drama is the educational focus of their visit. Pupils reflect on the materials and technology involved in the tasks they are doing and on what, if anything, can be inferred about the past from such activities today.

Archaeology provides important evidence of the past and 'if we are to have an adequate perception of our place as human beings in the modern world, the past matters' (Renfrew and Bahn 1991:484). Perhaps, any reconstruction site, whether its purpose is 'legitimate'—in other words concerned with authenticity—or 'frivolous', has a useful role if it stimulates an interest in the reality of the past. If that process leads the student to recognize the difference between what we imagine we know and what we can legitimately expect to know from the evidence, it will have been worthwhile.

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REFERENCES

Adams, E. 1992. Learning Through Landscapes. Winchester: Learning Through Landscapes Trust.

Armstrong, N., J.Balding, P.Gentle and B.Kirby 1990. Patterns of physical activity among 11–16 year old British children. *British Medical Journal* 2:203–5.

Armstrong, N. and A.McManus 1994. Children's fitness and physical activity: a challenge for physical education. *British Journal for Physical Education* Spring: 20–6.

Coles, J. 1979. Experimental Archaeology. London: Academic Press.

Diamond, J. 1992. The Rise and Fall of the Third Chimpanzee. London: Vintage.

Donaldson, M. 1978. Children's Minds. London: Collins.

Dyer, M. 1996. More to the past than authenticity: an examination of archaeological reconstruction sites. Unpublished dissertation for post-graduate Diploma in Heritage Interpretation, St Mary's College, Strawberry Hill, University of Surrey.

Hodder, I. 1982. The Present Past. London: Batsford.

Keen, J. 1986. Danish and Norwegian reconstruction sites. Unpublished report for British Travel Education Trust, London.

Keen, J. 1989. Unpublished submission for the Jerwood Award. Cranborne: Ancient Technology Centre.

Keen, J. 1996. A Teacher's Guide to Ancient Technology. London: English Heritage. Maddern, E. 1992. A Teacher's Guide to Storytelling at Historic Sites. London: English Heritage.

Mynors, R. 1969. Virgil's Works. Oxford: Oxford University Press.

Piggott, S. 1978. Antiquity Depicted. London: Thames and Hudson.

Renfrew, C. and P.Bahn 1991. Archaeology: theories, methods and practice. London: Thames and Hudson.

Rousseau, J. [1762] 1991. Émile ou de L'éducation. London: Penguin.

Stone, P. and P.Planel. 1994. Introduction. In The multifaceted aims of reconstruction sites: archaeological evidence, reconstruction of sites, education and public awareness. WAC-3 precirculated papers.

17 Bede's World, UK: the monk who made history

PETER FOWLER

There should be few in these islands to whom the name of Bede is unknown, but there are perhaps many who do not realize the greatness of our debt to him.

(Sherley-Price 1955:24)

INTRODUCTION

Historically, our perception of the life of the Venerable Bede is placed in time either side of AD 700. Bede would have expressed that concept in such terms too, for it was he who proposed the idea of measuring time from what he perceived as one of the few widely recognized, significant and absolutely fixed dates, *Annus Domini*, that is the year (of the birth) of Our Lord, Jesus Christ. Disregarding subsequent debates about when that event actually occurred, we can recognize that the concept made History possible, at least in the Western tradition, by providing a usable chronometric framework within which to think, interpret and write.

It was also Bede himself who so seminally demonstrated, above all in his *Historia Ecclesiastica*, how to use primary evidence within such a framework. That his achievement overall was also of historical significance at European, national and local levels marks how he made history in another sense, that is by being sufficiently important to 'make it' into the history books (Blair 1970, 1976). After all, what greater fame than to be guyed in *1066 and All That* as the 'Venomous Bead' (Sellar and Yeatman 1930:15)? Hence the subtitle above: Bede was, in at least three senses, 'the monk who made History'.

Bede's was a life dedicated to the glory of God through the disciplines of monastic devotion and scholarship founded upon the written word. Whatever the planes of existence of his soul and mind, however, the man's corporeal life was firmly placed in space at Jarrow—Gywre—in the Anglian Kingdom of Northumbria (for the historical and cultural context of Bede's life and work, see

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Blair 1970, 1976; Bonner *et al* 1989; Hawkes 1996; Higham 1993). He had been taken there as a boy, to the new monastery of St Pauls founded on a royal land-gift overlooking an expanse of tidal mud-flats where the River Don met the Tyne; and he stayed there until his death some 55 years later. In that same place, inspired by Bede's life and works, and by thoughts of time, place and literacy, another Bede's World is in the making 1300 years later. Those involved of course appreciate that they cannot recreate the spiritual or intellectual worlds known to Bede but believe they can justifiably attempt to effect, however impressionistically, aspects of a more tangible Bede's world, his physical environment and some of its workings (Chippindale 1994:7; Grocock 1996).

That belief, and the attempt to put it into action in the physically and socially post-industrial world of South Tyneside, are in a way as much a matter of faith as was Benedict Biscop's in founding a monastery there in AD 681. Like Benedict, who innovated with new buildings and materials for religious motives, we believe within our secular framework that to try to create a physical Bede's World is worthwhile in this place and at this time. Perhaps less than humbly, we hope that the new Bede's World, like the original, will be not just of some academic interest but might even be helpful in several ways to some of our contemporaries and perhaps to posterity.

Nowadays, of course, such personally expressed, aspirations are insufficient so a corporate 'mission statement' exists too, echoing the words of Sherley-Price, above:

The object for which the Company [Jarrow 700 AD Ltd] is established is to protect, preserve and improve for the benefit of the public the Church of St Paul's, Jarrow, Bede's World, and the monastic remains and other historical and vernacular buildings in the vicinity and to plan, develop, maintain, manage and improve the surrounding area as a centre of historical, religious, educational and cultural importance with a view to fostering public awareness, understanding and appreciation of the life, times and works of the Venerable Bede.

It is very much in the spirit of our own times that such a mission is pursued in partnership, with sponsors and through marketing as much as through high ideals.

BEDE'S WORLD IN PLACE

The site

Bede's World is as much a concept as a place but nevertheless it exists on the ground (Figure 17.1). The focal point, in mind as well as in space, is the parish church of St Paul, still a place of worship. The building incorporates as its chancel a late seventh-century chapel or small church of Benedict's monastery; and the nave overlies the foundations of a larger contemporary church,

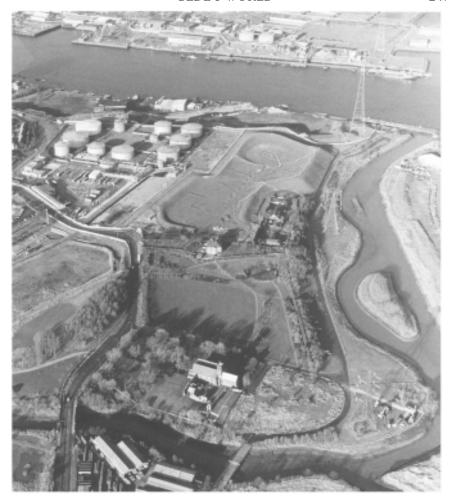


Figure 17.1 Aerial photograph of Bede's World from the south, taken in December 1993 when the first part of the new museum was under construction and the signs of 'the making of the Anglo-Saxon landscape' in 1992–3 were still apparent. The 'Celtic field system' showing up so clearly as shadow-marks was made at that time to give time-depth to a landscape which, as conceived now, would already have been 'old' when farmed as part of the monastic estate *c*. AD 700. Since this photograph, the river Don to the right has been re-shaped, its (modern) island deconstructed and the eastern bank landscaped and planted with thousands of trees and shrubs

probably the monastery's original basilican church (Taylor and Taylor 1965:338–49). Here the famous Jarrow lectures occur each May, reviving and continuing into our own day the Bede tradition of scholarship. The north

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aisle contains a new exhibition in Bede's World 'house-style' of the sculpture from the Early Christian monastery. In truth, however, the church does not need such artifice, for it is palpably a holy place and a place of pilgrimage in its own right.

Outside the church are the ruins of a medieval Benedictine monastery, founded in the twelfth century on the site of the Early Christian monastery. Excavated in the 1960s and 1970s (Cramp 1969), the site plan and structural history of the earlier phases are now represented at ground level between the standing ruins. New, Bede's World-style information panels with perspective reconstruction graphics attempt to help visitors understand the complexities of what they are looking at. Along the River Don and up the hill, where all the new development is, the thought emerges that it is only here, where Bede himself worshipped, worked, lived and died, that a modern Bede's World could possibly be realized. Ultimately, the authenticity of the place is Bede's World's sole justification.

In addition to history and religiosity, a strong 'green' element runs through the Bede's World concept and its implementation. The River Don itself has been cleaned up from recent industrial pollution, and a walk along its banks improved. Visually more striking is the artful landscaping of the river itself. It now looks completely different from a few years ago as it follows a curvaceous course with new sides and a high embankment on its east planted up with thousands of trees and shrubs. More subtly, its profile has been carefully adjusted so that a maximum of tidal mud-flat is exposed for as long as possible, to recreate some of the former habitat attractive to wader birds. This echo of Jarrow Slake, in its former glory as an ornithological staging post, can be scorned as environmental gesturism, as we know that nothing can replace the loss of the original Slake; but it recalls the monastery's riverine connection from its harbour to the sea, and the mud-flats that Bede would have looked out on as a characteristic part of his monastery's setting.

From the religious complex and river the ground rises gently to a central focal point at Jarrow Hall, a late eighteenth-century family house. This was converted into the present museum in the 1970s, essentially to present results from the monastic excavations which had aroused considerable local interest. Significantly, its achievement came about through co-operation between the Church, local community, academic interests, outside funding, and financial and other support from the Local Authority. Essentially, those components remain in place and active twenty years later as the basis for the present expansion.

By the Hall, two main physical developments are working towards giving the project critical mass, not least as a tourist attraction which can become financially viable. A multi-million pound new museum building has been designed by the distinguished architects Evans and Shalev (Singmaster 1995:30). Phase 1 was opened in May 1995, and it is planned to build further stages over the next

decade as finance allows. It will be the indoor part of the 'Museum of early medieval Northumbria', not just presenting the monastic excavations properly for the first time but also acting as repository and display case for an important phase of English history which at the moment does not benefit from a major presentation in a professional museum in the region. It is further the intention to place the Northumbrian dimension in its European context, focusing on the journeys of Benedict and Wilfred between England and Rome.

Further phases on the Bede's World drawing board include large court-yards, reflecting in plan the idea of cloisters and in profile memories of Italian roofscape and pergola. The architectural references to the Mediterranean, to Late Classical antiquity, and to Early Christianity as an expression of both, are unmistakable though unexpected to many an innocent visitor with rather different preconceptions of Jarrow-on-Tyne. The references are, of course, deliberate for though Jarrow is geographically distant from Rome, through its founders and its inspiration it enjoyed a direct and immediate link with the Holy City in the late seventh century. The texture as much as the design of the new building is meant to catch the eye, its appeal lying in its bricks and tiles, marble and mosaics. Such detailing reflects the information recorded by Bede himself: Benedict brought to Jarrow not just the architectural idea but materials and craftsmen to make such a building possible.

Yet all such relative sophistication then would have come to be realized against the backcloth of the mundane daily life of an agrarian estate; and so is it still, at Gywre in the 1990s as it was in the 690s. Immediately outside the suave assuredness of the new building is a wooden hurdle gate and a wattle and mud goose-house. The visual juxtaposition and conceptual leap is too much for some visitors, and as yet we have not found the most appropriate presentation for this crucial point in the Bede's World landscape, at the entrance to the Anglo-Saxon farm.

The agrarian landscape was conceived in 1991, physically bullied into shape with a massive use of machine power in 1992–3, and planted up in 1993 with some 10,000 trees and shrubs, mainly deciduous hardwoods. All were of species attested as existing before AD 700 in northern England. The idea is that eventually the landscape with its trees can be made to look as if it is a farmed valley of which the fields have been cleared out of what was once ubiquitous woodland; but the very dry and cold, and then very hot and dry weather of 1994–5 stunted growth, and it was only in the wet Spring of 1996 that many of the plants began to show signs of growth. We also caused a stream to run through this Anglo-Saxon landscape. It dates to 1994, is entirely artificial and contains water taken off the mains by plastic tube and recycled by an electric pump. Yet, already it looks old as it flows along the straight ditch of 'Roman' land drainage and entirely natural as its babbles its way through authentic meadow flora into its 'Anglo-Saxon' pond. We are clearly getting into deep water here. At the moment, the area looks too much like a shallow open bowl with trees planted round the edge, but, like everything else about this project, we have to be patient, think in

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terms of fifteen to twenty years, and learn to work with nature in the very late twentieth and twenty-first centuries.

Construction, authenticity and honesty

We do not re-construct at Bede's World. We cannot RE-construct because we do not know what the originals looked like, nor how they were built. Rather we build from primary evidence and first principles, knowing that our work will at best produce a model which may or may not 'work'. In practice too, a major constraint was, and is, a lack of experience of Anglo-Saxon farming. 'How did they actually do it?' suddenly becomes a real question when faced with an area of land meant to be an arable field or a space marked 'Site of Anglo-Saxon house'. And meanwhile, we have to operate on a site which is open to the public throughout the year and which must comply with several statutory requirements concerning access, health and safety, animal welfare, and also produce income. These are severe restrictions, and so far we have not been able to mitigate them, as at Butser 'Iron Age' Farm, Hampshire (Reynolds 1979), by operating a demonstration farm for the public and another place for serious experiment.

These are early days at Bede's World, 1990s' version, but some basics are quite clear in our construction work. 'Authenticity' is a key principle. By that we mean precisely that everything we do must give reference to the record which has allowed us to create, build or do something. It is not good enough to act on hunch or general likelihood: we must be able to quote our source. We have already learnt that, in practice, we have to go further than that. Now, honesty rather than just authenticity is the key word, that is being able not just to quote a reference in Bede or a detail in an archaeological excavation report to 'justify' our action but also to explain to lay visitor and peer academic why and how we have used that evidence in the way that we have. In other words, honesty in interpretation and openness in presentation are in the forefront of what we do and what we are seen to be doing. At no point do we say, 'This is how it was'. We frequently say, 'We do not know how it was but we are trying to find out—perhaps you would like to join in?' In some cases we can now say 'This is how it wasn't'. Grocock (1996:9) correctly sums up our efforts as a 'genuine attempt at academic experimentation alongside genuine artefacts on a genuine site and being honest about the difficulties of their interpretation'.

Landscape

Our construction is at two different levels: that of the landscape, and that of individual buildings. We designed the landscape first. In its Anglo-Saxon form, it replaced derelict land recently occupied by huge petrol storage tanks and formerly serving various industrial functions. The land itself was heavily polluted; vast amounts of soil were removed and replaced. The new landscape was based

on a familiar archaeological landscape model incorporating ideas of palimpsest, succession, survival, rupture and continuity. Its design also had to bear in mind that this new and contrived landscape has to 'work' in the late twentieth century and beyond as an Anglo-Saxon farm, an educational resource and a tourist attraction.

The constructed Anglo-Saxon landscape therefore had features built into it from prehistoric and Roman times of the sort demonstrably existing as relics in a Northumbrian landscape of *c*. AD 700. A 'Bronze Age barrow' therefore marks one skyline, albeit rather dominated by the tallest electricity pylon in England; the valley sides and floor contain fragments of a co-axial 'prehistoric field system', some of its banks redundant, others incorporated into later land-arrangements. A straight length of stream, as already mentioned, drains some 'Roman fields'. There are no problems of archaeological reference points for such landscape detail, which the visitor may not perceive or even be told of. Furthermore, documentary evidence is also brought into play. The pond, for example, and its adjacent ford lead to discussion of the topographical detail in Anglo-Saxon land charters, and to the lack of such charters in the North and the inhibiting effect of this on our understanding of the early Northumbrian landscape.

Buildings

Our second level of construction is concerned with various buildings in Gywre, but so far only two are properly experimental. All are modern, that is none are genuine old buildings surviving on the site or brought from elsewhere. Even some of the ostensibly modern buildings serve an interpretative purpose. A temporary modern wooden shed of a sort never seen in the seventh century provided winter-shelter for the team building an Anglo-Saxon hall—thereby making the point that such shelter was necessary if work was to proceed during the winter months. A ramshackle building, again visually and structurally the antithesis to any authentic reconstruction, was put up in a couple of afternoons by completely untrained and archaeologically ignorant Bank employees as an exercise in team-working, enabling us to label the result an example of the use of genuine materials—split wood, mud and straw,—but also of a type and construction which Anglo-Saxons would definitely not have erected—because they were more knowledgeable in such matters.

In contrast, we have carefully disguised with clap-boarding and thatch two modern steel-framed, breeze-block buildings, a byre and a stable. The buildings, complete with electricity, are necessary to meet our statutory obligations as keeper of animals, but we are not cheating. In their raw state, these two buildings would have been visually far too disruptive of the Anglo-Saxon effect we are trying to create in our landscape, so, by covering them appropriately, we have avoided an architecturally jarring element. Furthermore, the size and proportions of the sheds are appropriately Anglo-Saxon, and of course their functions are realistic. Interpretation of them for visitors is along such lines, stating categorically

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that the buildings are neither authentic, nor experimental; and people seem to appreciate such honesty. Similarly with our goose-house which was not constructed 'experimentally', though it really is built of wood, wattle, mud and straw, and is meant to look and be authentic; but no one knows what a goose-house of AD 700 looked like or how it was built. Ours is an attempt to model one, basing our interpretation on the plan of the later tenth-century Structure X, interpreted by the excavator as including a fowl-house, or specifically a goose-house, at Cheddar, Somerset (Rahtz 1979:124–32, foreground Pl. III); and the plan of a goose-house and associated structures, on which interpretation of the Cheddar evidence is itself based, illustrated in the early ninth-century Plan of St Gall, Switzerland (Price 1982:72–3). We explain this on site. We are demonstrating not just Anglo-Saxon England but how knowledge of it is arrived at by modern scholars. Our approach to our visitors is inclusive and participatory, not didactic.

The two experimental Anglo-Saxon buildings are based on excavated ground plans, a hall-house and a grubenhaüser. The experiment so far is limited to putting them up, and reflects the hard reality of 1:1 experiment. An enormous amount of work, material and skill is needed to do anything 'for real'; and Bede's World simply does not command the resources such as would have been available to an Anglo-Saxon estate owner.

We carefully chose 'Thirlings A' (O'Brien and Miket 1991) as a representative Anglian hall, not too big for us to tackle as our first effort yet large enough to ask some useful questions of such timber buildings. Essentially being built by only two people, who have had to work for weeks on other matters too, a year and a half after starting the hall framework is up, with the wattle panels of its walls in place; but it stands roofless, doorless and daubless, its completion probably still 6 months way. Even though we went to work on the back of experience at West Stow (a reconstructed Anglo-Saxon village in Suffolk, UK; see Introduction and Blockley, Chapter 1) transmitted through the practical skills of Richard Darrah, who oversaw the construction of much of West Stow and who spent time with us at Jarrow, we had to learn the hard way. The difficulty was considerable, for example in actually acquiring enough straight oak tree trunks c. 40 cm in diameter and not less than 3 m long, to conform to our archaeological and structural specifications, respectively. In fact, only one place in the north of England could meet those particulars, immediately making the point that, merely to build ordinary timber houses in seventh-century Northumbria, a silvicultural management regime would have been necessary. Such a thought is surely difficult to square with some historians' ideas of social instability, discontinuity and rupture in land management.

Our source was, significantly, on the traditionally managed woodland of Raby Castle Estate, on the eastern slopes of the Pennines in County Durham. The 35 tonnes of timber came from a plantation of 1944, and exactly fifty years later, after continuous attention, it contained straight tree trunks 30–40 cm thick. These will support a roof, the structure of which is not yet satisfactorily decided,

made up of 12 tonnes of ash rafters thatched in reed straw. At 1996 prices, this humble but not so simple three-bay timber building will have cost c. £50,000 for materials and labour by the time it is finished. That would buy you a small but new three-bedroom house in post-industrial Tyneside.

In the spirit of experiment, we would like next to build one or two different buildings arising from the same archaeological plan. Our ambition, once we have learnt how to construct these buildings properly, is to erect a building based on the ground plan of one of the much larger halls at Yeavering. One of them (Hope-Taylor 1977: Figure 78, Building A3) is indeed marked out on the ground to illustrate its enormous size, not least compared to Thirlings A. 'King Edwin's palace' (or whichever one we eventually base our construction on) will cost something of the order of £250,000 judging by our experience so far, even if we are able to acquire the materials. Perhaps we should plant an oak wood now. Patience is required in this field.

The other Anglo-Saxon experimental building, echoing West Stow experience, is a first attempt at a grubenhäuser. The hole we dug, based on the archaeological evidence at New Bewick (Gates and O'Brien 1988), promptly filled with water. The timber-framed, heather-thatched roof was attached to the two central, gable uprights but otherwise seemed to have little to do with the wicker-lined hole. So far this experiment has not solved anything, although the ambiguities of its physical presence make it an excellent teaching aid. Its cost of c. £7,000, compared to that of our mediumsized hall, does beg the question, however, as to whether part of an explanation for these ambivalent structures lies simply in their cheapness. Expressed in Anglo-Saxon terms, they could be knocked up very quickly without the need for great skill, but perhaps more significantly they would not have required access to the specialist resources, especially of managed woodland, necessary, we now know, for even modest halls. In this perspective of minimum, unskilled labour, non-specialist materials, low cost and speed of construction, it is hardly surprising that many a grubenhäuser blots our Anglo-Saxon settlement archaeology.

BEDE'S WORLD AND PEOPLE

Support for Bede's World

An interesting range of people and institutions support Bede's World. Without them it could not exist; financially, even with their support, it is not yet viable. Its present phase of expansion is, however, in its early days and it simply has to be a matter of faith that, combined with good management, inspiration and luck, the project's development will before too long lead to a level of stability. It will, however, never be financially self-sufficient, for the nature of such enterprises is that Bede's World will always require an element of subsidy or deficit funding

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on its revenue side. This has become a particularly difficult idea to 'sell' in a society increasingly fixated on commercial success alone.

Grants from the Local Authority have always been, and continue to be, vital. They support several operations in the archaeological/heritage/cultural field, for example, Arbeia Roman fort and the Jarrow Festival. Its main objective here is to develop its tourist trade with a view to creating employment and boosting the local economy. Its biggest success has been in the marketing of 'Catherine Cookson Country' (Catherine Cookson being a famous local novelist), succeeding far beyond expectations when it was first launched as a short-term promotion in the mid–1980s. Inevitably, Bede's World is part of the 'Cookson Trail', despite the obvious clash for purists between its aspirations to historical authenticity and the imaginative world of the novelist; but then, the Council is a grant-giver, Bede's World needs the trade, and Dame Catherine Cookson herself is a generous supporter of the project's educational programme. Schoolchildren in South Tyneside visit Bede's World without charge: that is the one condition of the Council's grant, though the Council is also represented at member and officer level within Bede's World's structure.

Other financial support has been organized largely through The Bede Foundation, an integral part of Bede's World acting as the project's fund-raising charity. Its Board consists mainly of business people, personally interested and also representing considerable support among the private sector on Tyneside and nationally. The Foundation exists solely to raise funds and look after donors' interests so it is not technically concerned with the project's management or individual components on the ground; but individual members of the Foundation of course have views on how the project is being run and it would be foolish not to take advantage of such experience. Indeed, members from the Foundation now participate in what is effectively the Executive Committee of the whole operation.

The two largest financial supporters individually are, however, somewhere else. Bede's World would not have happened had it not been for the Tyne and Wear Development Corporation. Though small financially compared to the Corporation's outlay in its major partnership developments along the banks of the two rivers, Bede's World has for seven years now been growing as one of the Corporation's 'cultural flagships'. The whole landscape of the Anglo-Saxon farm, for example, was created with Corporation money which was going to be spent on landscaping derelict land there anyway; and over and above Corporation financial help in other respects and at crucial times, its expertise, resources and goodwill have also been vital. Never was that more so than in the complicated formulation of a successful bid to our second biggest financial supporter, the European Union. Our successful application for funding under the Regional Development Fund resulted in Bede's World's largest individual grant so far. The first phase of the new museum building was made possible with Euromoney, and it will play a significant role in the second phase too.

Meanwhile, however, the whole world of charitable financing in the heritage/ museum field has been drastically changed by the arrival of the National Heritage Lottery Fund. Large though the sums potentially available from that source are, paradoxically in a way that Fund makes it even more important for an applicant like Bede's World to enjoy the committed support of a range of bodies. Our first application, in 1995, was turned down. We are now busily engaged in preparing with professional consultants a second application on which depends much about the future of the project. We have to be more appropriately prepared this time in order to be successful, for surely the project designed to honour Bede, of all people indisputably part of the national heritage, must be good enough to gain national support.

EDUCATION

Education is at the core of Bede's World's philosophy and its activities. Confirming this, a new Education Policy was approved in December 1995. Much of the following is based on it. The Education Service's purpose is 'To support the mission of Jarrow 700 AD Ltd by promoting and developing Bede's World as an educational centre for the study and appreciation of the life, times and works of the Venerable Bede.' The Policy document identifies the elements of Bede's World and the nature of its collections, discusses the project's educational framework and its resources, and lapses into the necessary jargon of 'target audiences' and 'staff development'. The Education Service consists of only three full-time professional posts under the management of the museum Curator; but three posts represent a significant percentage of the full-time, professional posts the Project can support. This fact reinforces the commitment given by management to education. The placing of the Service under the Curator signifies a deliberate two-way intent. Education is meant to embrace the whole site and be for all, not just the built 'educational' parts and only schoolchildren; and museum display and indeed site interpretation are meant to be informed by educational needs, for example 'To provide educational input to the provision of museum displays, exhibitions, historic reconstructions, publications and interactive learning developments.' That has to be seen within the wider aim which is:

To consider the historical, archaeological and theological aspects of the Monastery of St Paul, its physical and social environment, its important and unique place in the history of the Christian Church and Northumbria and its role in the development of education, culture and craftsmanship in early and later medieval Europe.

At the moment, almost the entire formal education programme is devoted to school-children aged between 6 and 11 years. The content is concentrated very much on the needs of the National Curriculum: that point may be criticized both in itself and because Bede's World is an independent organization; but then schools only bring their children to Bede's World voluntarily and the field is a highly competitive one. We have to attract our participants. Our role is to

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meet the needs of schools and their pupils while retaining our own control of style, methods and, to a considerable degree, content. The work is mainly concerned with History Core Study Unit 1 at Key Stage 2 (for pupils of 7 to 11), 'Romans, Anglo-Saxons and Vikings in Britain'. The programme also includes 'Medieval Realms: Britain 1066–1500' with children in the 11–13 age group, focusing on the Norman monastery overlying the Anglo-Saxon one and still very much standing as ruins. Other syllabus areas include archaeology, environmental studies, museological studies, leisure and tourism, and religious education, for example, looking at Saints or important Christians. About 13,000 schoolchildren visited Bede's World during 1995–6, most coming from the North East of England but with a significant proportion of new educational visits coming from schools in other parts of the country. They often stay in the area for up to a week, using Bede's World on a field tour studying, for example, Early Christianity and visiting other sites in Northumbria such as Lindisfarne.

We would like to do much more and are especially keen to do more in and with the local communities. We know that we could, and probably should, work more frequently with, for example, educational and other organizations with pupils with special educational needs. We want to do more in Higher Education, with undergraduates and at postgraduate level, building on good experience with many individual students and interaction between 'Heritage and Society' and 'Museum Studies' students from the University of Newcastle. Our small staff already give dozens of lectures and guide many a group around the site each year but there is no formal provision in such 'outreach' work nor, sadly, the capacity to do more.

The Project's educational resource is already stretched, but we hope to meet school demands, and welcome c. 20,000 pupils within two more years, by shifting from direct to self-guided teaching. We will have to work more closely with teachers in preparing for visits. Inevitably this will mean the production of more printed and other material for teachers to prepare themselves and to use with their pupils. The Education Service already produces a leaflet for prospective users and a substantial Visit Information Guide for teachers that includes a letter of welcome from the Team Vicar of St Paul's as well as from the Senior Education Officer. It explains everything about Bede's World, from how to use primary sources of evidence to the location of the toilets.

There is also a Resources Catalogue that lists the educational products available at Bede's World. They include 'Discovery Chests' to hire as teaching aids, and many resources packs. These packs include activity sheets to photocopy and reinforce the learning experience. One such sheet asks 'How much do you know?' and tells you to underline the correct answer. It provides as an example 'Nun is to convent as monk is to (church, monastery, house).' Another question, which you are now required to answer correctly, is: 'AD 685 is to Jarrow as AD 674 is to (Monkwearmouth, Lindisfarne, Whitby).' If you are uncertain, or

your guess is wrong, remember that Bede knew the answer 1300 years ago. You need to visit his place. And if you do not like what is emerging as Bede's World today, then also call to mind Sellar's and Yeatman's question (1930: Test Paper 1, Question 6a): 'How would you have attempted to deal with "The Venomous Bead"?'

ACKNOWLEDGEMENTS

My considerable debt is to all who are helping to develop Bede's World. In particular Elizabeth Bell, Senior Education Officer, drafted much of the education policy document on which the latter part of this chapter is based. Grocock's (1996) then unpublished paper gave me early encouragement and Susan Mills has been, as always, critically supportive. Christine Martinez edited and sent a recalcitrant text to a patient editor. Priscilla Boniface provided my punningly apt sub-title.

REFERENCES

Blair, P.H. 1970. The World of Bede. Cambridge: Cambridge University Press.

Blair, P.H. 1976. Northumbria in the Days of Bede. London: Gollancz.

Bonner, G., D.Rollason and C.Stancliffe (eds) 1989. St Cuthbert, his cult and his Community to AD 1200. Woodbridge, Suffolk: Boydell Press.

Chippindale, C. 1994. Editorial. Antiquity 68, 6-9.

Cramp, R. 1969. Excavations at the Saxon monastic sites of Wearmouth and Jarrow, Co. Durham, an interim report. *Medieval Archaeology* 13, 21–66.

Gates, T. and C.O'Brien 1988. Cropmarks at Milfield and New Bewick and the recognition of grubenhäuser in Northumberland. *Archaeologia Aeliana* 5, 1–9.

Grocock, C. 1996. 'Squaring the circle': Bede meets the tourists! *Medieval Life* 4, 8–10. Hawkes, J. 1996. *The Golden Age of Northumbria*. Warkworth, Northumberland: Sandhill Press.

Higham, N. 1993. *The Kingdom of Northumbria, AD 350–1100*. Stroud, Gloucestershire: Alan Sutton.

Hope-Taylor, B. 1977. Yeavering: An Anglo-British centre of early Northumbria. London: Her Majesty's Stationery Office.

O'Brien, C. and R.Miket 1991. The Early Medieval settlement of Thirlings, Northumberland. *Durham Archaeological Journal* 7, 57-91.

Price, L. 1982. *The Plan of St Gall in Brief*. Berkeley, CA: University of California Press. Rahtz, P. 1979. *The Saxon and Medieval Palaces at Cheddar, Excavations* 1960–62. Oxford: British Archaeological Reports.

Reynolds, P.J. 1979. Iron Age Farm: the Butser experiment. London: British Museum. Sellar, W.C. and R.J. Yeatman 1930. 1066 and All That. London: Methuen.

Sherley-Price, L. 1955. *Bede: a history of the English Church and people*. Harmondsworth: Penguin.

Singmaster, D. 1995. Museum dedicated to the life of the Venerable Bede. *The Architects' Journal* June, 30.

Taylor H.M. and J.Taylor 1965. *Anglo-Saxon Architecture*. Cambridge: Cambridge University Press.

18 Archaeological reconstruction and education at the Jorvik Viking Centre and Archaeological Resource Centre, York, UK*

ANDREW JONES

The York Archaeological Trust was established in 1972 as an independent educational charity. Its main objective is to educate the public in archaeology through archaeological excavations, mainly in the City of York, through research, publication and presentation of its work. While most of the resources of the Trust have been dedicated to the production of high quality detailed accounts of excavations and finds, from its earliest days the Trust has engaged a Schools Officer who organized and guided thousands of children around excavations. Since 1972 as many of the Trust's excavations as possible have been opened to the general public and interested groups of adults. In addition, considerable efforts have been devoted to other forms of interaction with the public. Opportunities have been taken to put on displays in shops and building society windows, objects are regularly placed on display in local museums and material from Trust excavations is often sent to special exhibitions throughout the world. In addition, the Trust has produced a number of popular publications, notably Interim, a quarterly bulletin which is now in its twenty-sixth year. Archaeological maps and leaflets have also been produced. Staff are encouraged to give talks to local societies, schools and other non-specialist groups. Definitive reports are published for the Trust by the Council for British Archaeology in the series *The* Archaeology of York purchased mainly by academic scholars but also by a small number of interested members of the public.

THE COPPERGATE EXCAVATIONS

Without doubt the Trust's most important public archaeology initiative took place from 1976 to 1981 when it continuously excavated a large site in the city centre at 16–22 Coppergate. This site was chosen for a major excavation because it was known to be close to the centre of Viking Age York and was about to be developed. It was practicable to open this site to visitors and a small souvenir

^{*} Figures in this chapter appear courtesy of York Archaeological trust.

shop and displays were assembled. Push-button pre-recorded tape players enabled visitors to find out more about the finds and simple plans, leaflets and booklets were also prepared for non-specialist visitors. During the excavation 300,000 visitors came to the site. Conversations with these visitors gradually persuaded staff that there was an opportunity to develop the interest shown on site and plans were drawn up to build a museum dedicated to Viking finds.

Visitor reactions

Research, in the form of casual interviews and formal survey questionnaires with visitors at the site between 1979 and 1981, revealed that most visitors to the archaeological excavation were misinformed about, or ignorant of, many basic archaeological facts. These surveys also revealed that by far the majority of adults attracted to the excavation were drawn from social classes A, B and Cl. These people were well educated, typically university graduates or individuals with professional qualifications. This information is not surprising given what is known in general about visitors to archaeological museums (Merriman 1989). However, while most visitors were well educated, they had been either very badly taught or had failed to remember their history. Approximately 80 per cent of visitors thought that Vikings came before the Romans because their houses, pottery and lifestyle were 'simple', or 'more primitive' than those of the Romans.

A new type of museum

It was also clear that conventional archaeological museum displays were of little interest to most visitors, so gradually plans were made to build a new type of archaeological display which used modern presentation techniques. The site at Coppergate was to be developed to provide a new shopping centre in the City with housing above the shops. During the development of the Coppergate Shopping Centre the developers offered the York Archaeological Trust a large basement space in which to erect some form of display, now known as the Jorvik Viking Centre (JVC).

In order to comply with Fire Regulations the numbers of people in this underground space had, and has, to be carefully controlled. This in itself obliged the Trust to come up with something that was not a typical museum where visitors could take as long as they wanted to view the exhibitions—thereby making the control of visitor movement almost impossible. The solution finally decided upon was to develop 'timecars'—small electrically powered cars which follow a buried cable at a fixed speed. Partly as the result of the same safety regulations it was also decided not to develop a conventional 'glass-case' museum display but rather to lay before visitors a tableau of what life might have been like in Viking Age York—scrupulously based upon evidence provided by the recent (and earlier) excavation(s). Thus visitors climb into their timecars and travel backwards in time past a number

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of manikins depicting life in York since the Viking period at which point their cars turn and move forward through a reconstruction of eighth-century Viking Coppergate (Figure 18.1). At the end of this reconstruction the cars move through a reconstruction of the twentieth-century excavation—showing and emphasizing the archaeological evidence on which the earlier reconstruction of Viking York was based. Visitors then leave their timecars and, after walking through a reconstruction of archaeological laboratories where staff are to be seen analysing environmental evidence, have the chance to look at a few of the more spectacular objects found during the excavations, displayed in conventional glass cases, before leaving the JVC through a well-stocked souvenir shop.

The JVC was opened in 1984 (Addyman 1994; Addyman and Gaynor 1984) and has attracted over 10 million visitors each year since it opened. The JVC was deliberately designed to dispel many popular misconceptions about the Vikings. For example, the Centre has appeared to be effective in changing children's misconceptions about the Vikings:

At the simplest level, learning can be seen to have occurred in that factual misconceptions have been corrected (for example, 'horns'—almost universal in the drawings at a pre-visit—disappear post-visit), but most importantly, it appears that more complex patterns of conceptualisation underlie the post-visit description [of Vikings and their way of life].

(Blud 1990:20; also see Watkin 1988)

The available evidence strongly suggests the JVC is successful as an archaeological display both in attracting visitors and in changing their misconceptions. Surveys of JVC visitors show that approximately 10 per cent want to learn more about Vikings and/or archaeology. In particular, many wish for opportunities to handle evidence from excavations and to ask archaeologists questions. Such opportunities would also significantly enhance the value of visits to the JVC by formal education groups. Unfortunately, because of the nature and constraints of the underground display space, such developments are impossible to countenance at the JVC.

THE ARCHAEOLOGICAL RESOURCE CENTRE

The Trust had used the medieval church of St Saviour in York as a store since 1977. Although plans had been drawn up to develop the church as a finds research base for the Trust and visiting students and scholars, funding constraints had prevented this development. However, with the enormous success and public interest generated by the Jorvik Viking Centre, a fundraising campaign was begun to develop the site of St Saviour's as an Archaeological Resource Centre (ARC) (see Jones 1995) where developments suggested by visitors to the JVC could be implemented alongside the Trust's requirements for a base to work on artefacts discovered during excavation.



Figure 18.1 Reconstructed street scene, Jorvik Viking Centre

St Saviour is located a few hundred metres from the JVC on what is now a quiet, largely residential, side street unfortunately occluded by a monstrous modern building, The Stonebow, which houses a betting shop, the Job Centre and a subterranean snooker hall. The impression of the street is not inviting to casual visitors and before fully opening the ARC it was necessary to see if visitors could be attracted along St Saviourgate. In the summers of 1987 and 1988 a temporary exhibition, 'Viking Ships', was mounted at the building to attract visitors the 100 metres from one of the main tourist areas of York, The Shambles. These experiments proved a success and were followed by an exhibition of holograms in 1989.

During this time plans were made for permanent displays at the ARC. A team of researchers, designers, computing staff and others was assembled from the Trust's own staff, with specialist advice from researchers in the University of York, to develop displays. The brief was to design interactive exhibits that were accessible and interesting to visitors of all ages and backgrounds. Each display had to be safe, engage visitors' attention for approximately 7 minutes and be easily reset. The aim was to design an academically sound yet exciting place for anyone interested in archaeology and what archaeologists do.

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The ARC opened experimentally in February 1990, free of charge, and began charging on 1 April 1990. Visitors are encouraged to participate in a wide variety of absorbing activities in which they handle archaeological finds, experiment with replicas to investigate early technology, and discover how computers are used in modern archaeology. The ARC is now the main flagship for the Trust's educational activities, a place for York residents, and families, tourists, school and college parties from near and far (Figure 18.2). It is also used for seminars, lectures, day schools and evening classes. Unlike the Jorvik Viking Centre which is a magnificent *spectade*, the ARC actively encourages the visitor to *participate*.

The Archaeological Activity Area

The prime object of the Archaeological Activity Area (AAA) is to allow visitors of all ages and all abilities to find out more about how people lived in the past by investigating archaeological materials and by experimenting with a range of crafts and technologies. Information technology, from pictograms to interactive video, plays an important part in the display. Friendly, trained staff, clearly



Figure 18.2 Interior of the ARC

identifiable in bright red jumpers, are on hand to help visitors explore the displays and the building. Most of the staff are students on work experience placement or volunteers who come on a regular basis.

Visitors are encouraged to handle and to sort ancient finds, unlock replica Viking Age padlocks, learn to spin and weave, and stitch together copies of one-piece Roman leather shoes. Viking Age and later writing can be explored by arranging magnetic hand-carved runes on a picture of a Viking Age grave marker. Other resources are available on request. For example, visitors can write in beeswax on replica Roman writing tablets.

The last section of the AAA is a display of micro-computers which demonstrate their potential to handle archaeological plans and distribution maps. In addition, they show which data are recorded for the many objects recovered by excavation. An interactive video allows visitors, by simply touching the screen, to examine an archive of captioned colour photographs taken during the excavations at 16–22 Coppergate (Figure 18.3). Most recently we have extended the scope of the AAA away from evidence provided by archaeology and have installed a computer system that allows visitors to interrogate the 1851 census returns for St Saviour's parish. As a result we hope that the ARC will develop a local studies role alongside its original archaeological one.



Figure 18.3 Computer based 'interactivity'

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Visitors spend most time in the nave of the church in the AAA but the mezzanine floor is also open. Here other facets of the ARC, the architecture of the building and the work of researchers on anything from Roman glass to neolithic fish bones, can be viewed. The mezzanine floor is also the main home of the Trust's Finds Administration Department, whose staff package and catalogue the thousands of finds recovered during excavations. In addition, finds researchers, other staff of the York Archaeological Trust, and visitors from museums and universities around the world, study and report on objects on this floor.

The area beneath the tower with its fine twelfth-century architecture is frequently used for lectures, video shows and other presentations. A host of local historical and archaeological groups use the building including the (amateur) York Excavation Group, the York Branch of the Young Archaeologists Club and the York Oral History Project. Day schools and evening classes are also held at the ARC. There are often temporary exhibitions in the tower area of the mezzanine and there is a general archaeological information point where visitors can learn about excavations and sites open to the public. Almost all aspects of the ARC are suitable for visitors with special needs. Wheelchair access to the Archaeological Activity Area is excellent; however, it is not yet possible for visitors in wheelchairs to visit the mezzanine floor. Outside in the graveyard there is an archaeological garden growing cereals and dye and other plants known to have been exploited in York in the past. There is also a collection of architectural fragments, mainly from York's medieval buildings, and a pleasant informal garden where visitors can sit and relax. The ARC shop contains a wide variety of carefully selected educational and other academic publications, and souvenirs including high-quality replica pottery.

Operational details

The ARC can accommodate a recommended maximum of thirty visitors every thirty minutes when running at full capacity. Already we are fully booked by educational groups for most weeks during term time. We recommend that school parties be no larger than thirty pupils plus accompanying adults and we have found that parties of adults are best limited to fifteen. We recommend that visitors allow an hour and a half for a visit to the ARC.

A video giving a brief introduction to the archaeology of York and showing several of the activities at the ARC is available free of charge for short-term loan. In addition, we have produced *Notes for teachers: primary and lower secondary*, which includes a description of the activities on offer at the ARC and ideas for preparatory work, and an education pack full of ideas for activities that can be done in preparation for a visit or as follow-up activities.

SPECIAL EVENTS AT THE ARC

In addition to the above activities a number of special events are organized throughout the year. These include food tastings, demonstrations of ancient technology, holiday activity mornings for children, and art exhibitions. In all cases a link is made between the subject matter and the archaeological basis of the ARC. For example, two series of Music and Theatre Discovery Workshops for children aged roughly 7 to 11 years have been held. The workshops, led by a local contemporary composer, were based on 'Rituals and Relics', the title of an exhibition of landscapes held at the ARC during the summer. Those taking part created their own 'rituals' using archaeological materials available at the ARC—bones, pottery and other suitable objects. Each person was encouraged to contribute to the workshop so that the final piece was the product of all those involved. This was then performed to parents and friends.

'From lamps to lasers' was a collaborative pilot project between the Department of Physics of the University of York and the ARC which integrated hands-on demonstrations showing some of the properties of light (visible and invisible) with displays of ancient lamps, other equipment and materials used to generate light from prehistoric times to the present day. Computer monitors illustrated fluorescence and gave insights into the use of computers in archaeology to record finds and examine their distributions. Interactive video, a laser-based technology, beautifully linked archaeology and physics.

We have also carried out a number of community archaeology projects involving York residents. The first of these was a temporary exhibition of Beatles memorabilia, held as Paul McCartney was about to celebrate his fiftieth birthday. The exhibition made the link between today's material culture and that recovered from excavations in the City. For example, medieval pilgrim badges were purchased by pilgrims at holy sites and taken home to be cherished for many generations. These mass-produced objects can be seen as forerunners of today's souvenir trade. The Beatles memorabilia loaned by York residents illustrated the range of material evidence in people's houses in 1992. Not surprisingly it was dominated by records, but also included magazines, tickets, cushions, badges, tin trays, posters and newspapers from many countries. Many of the objects in the exhibition were of little financial value when they first appeared. By 1992 they were worthy of public exhibition and some are highly sought after by collectors.

We stressed that the importance of the objects in this—and any—exhibition comes from the significance people place on them and is closely linked to memories of times past. Significance cannot easily be measured and so the importance of an object cannot readily be assessed unless the background of the owner is known. The display made the point that when we know little of the culture or society that produced objects, it is more difficult to assess the significance of those objects.

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ARC staff hold a long-term ambition of producing a definitive account of the history and development of the St Saviour's parish. As part of this we ran an oral history project to record memories of former residents of the parish as a first step in this process. An article in the local newspaper alerted readers to the project and residents, and former residents, were contacted, and their memories tape-recorded. Transcriptions were made and eventually an edited account prepared and published in February 1996 (Wilson 1996). The final publication included maps of the area, many photographs of former residents in their youth and maturity often with objects from their homes and photographs of the area past and present. The launch brought together people who had not seen each other for decades and has spawned a local community-based play which incorporates many aspects of local life. It is hoped that the project will be developed into a resource pack for local schools interested in changes in the way of life since the 1930s and a community exhibition staffed by local residents.

The ARC has also initiated two small educational projects which involve excavation as well as research. In both it has proved possible to provide activities for young people from the age of 9 years. Digging, finds processing, sieving, sorting and recording have all been available for participants. However, the main benefit of these projects has been giving hands-on experience of site-based archaeological activities for students and volunteers at the ARC. Furthermore both projects have provided opportunities for the public to see archaeological field work in progress, something which earlier generations of archaeologists in York have taken for granted but, for numerous reasons not relevant to this chapter, is now not very common.

ASSESSMENT OF THE FIRST SIX YEARS OF THE ARC

The years since opening have witnessed considerable success. The ARC has won three major awards for presentation and has been visited by museum designers, curators, directors and academic archaeologists from all over the world. The ARC's influence is now visible in displays in places as far flung as Japan and as close as Lincoln and Carlisle.

The number of visitors per year has grown from 33,000 in 1990 to over 65,000 in 1993–4 (see Table 18.1). It is particularly pleasing to report that the anticipated problems of integrating school visits with those of other sectors of the community proved unfounded. The ARC is of most interest to adults accompanying children, whether they are teachers, parents or grandparents. The majority of adults who visit the centre alone enjoy watching younger visitors take part in the activities when it is busy, and are happy to move around the building to avoid the worst congestion. During term time we are most busy with school and college groups, during holidays the number of general public visitors rises significantly.

	1990–1	1991–2	1992–3	1993–4	1994–5	1995–6
Adults	12611	17531	18582	19630	16063	15132
Children	20622	38401	41705	45599	39315	36532
Total	33233	55932	60287	65229	55378	51664
School visits	13575	29356	31413	35601	32860	30173
% School visits	41	52	52	54	59	58

Table 18.1 Numbers of visitors to the Archaeological Activity Area

- Notes: 1 Children includes students and senior citizens.
 - Percentage school visits includes all students in infant, primary, secondary, higher education groups. The figures are dominated by children aged 7–11 years.

We have also provided work experience opportunities for over one hundred students from York and elsewhere each year. Many are as young as 15 years of age and gain their first experience of archaeology at the ARC as they study formal courses in travel and tourism. A large number are postgraduate students of archaeology and heritage management.

CONCLUSION

The Jorvik Viking Centre was hailed as a major development in interpretation by most of those involved in heritage interpretation and many of the ideas first tested in it have been re-used elsewhere. Some have criticized it (for example, Schadla-Hall 1984) but it is generally accepted that it moved heritage interpretation into new areas. However, its formal educational use was always constrained by the problems imposed by the nature of the site and especially by the health and safety requirements that do not allow anyone to roam freely around it. Pupils are given exactly the same experience as normal visitors and do come out with the same sense of interest and awe. However, their inability to spend longer in the display areas and to study the tableau and objects on show is a major problem. We believe that we have found one successful solution to this problem in the hands-on activities available at the ARC. Here pupils—and general visitors—are allowed to ponder and study at their leisure, to hold and examine replica and real objects of the past, and through doing so get a little closer to that past and see some of its relevance to the present.

However, the ARC can also stand on its own—as described in some of the examples of special events noted above. In these activities we are able to widen our focus out from the Viking world and use archaeological and historical evidence to bring the past to the present and, with luck, to provide visitors with a desire to learn more and to conserve what remains of the past.

REFERENCES

- Addyman, P.V. 1994. Reconstruction as interpretation: the example of the Jorvik Viking Centre, York. In *The Politics of the Past*. P.Gathercole and D Lowenthal (eds), 257–64. London: Routledge.
- Addyman, P. and A.Gaynor 1984. The Jorvik Viking Centre: an experiment in archaeological site interpretation. *International Journal of Museum Management and Curatorship* 3, 1, 7–18.
- Blud, L. 1990. From horns to cooking pots. Bulletin of the Centre for Environmental Interpretation July 1990, 18–20.
- Jones, A.K.G. 1995. Integrating school visits, tourists and the community at the Archaeological Resource Centre, York, UK. In *Museum*, *Media*, *Message*. E.Hooper-Greenhill (ed.), 156–64. London: Routledge.
- Merriman, N. 1989. Museums and archaeology: the public point of view. In *Public Service or Private Indulgence*, E.Southworth (ed.), Society of Museum Archaeologists Conference proceedings Lincoln 1987: Museum Archaeology 13:10–24.
- Schadla-Hall, T. 1984. Slightly looted: a review of the Jorvik Viking Centre. *Museums Journal* 84, 2, 63.
- Watkin, J. 1988. Jorvik: some school children's reactions. *Teaching History* January, 21–5.
- Wilson, V. 1996. Rich In All But Money: an oral history of St Saviour's parish. York: Archaeological Resource Centre.

19 oNdini: the Zulu royal capital of King Cetshwayo ka Mpande (1873–1879)

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INTRODUCTION

The Anglo-Zulu War of 1879 saw the defeat and subsequent subjugation of the sovereign Zulu kingdom by a British colonial government in Natal, South Africa. The reigning monarch at the close of war, King Cetshwayo ka Mpande, was taken captive, his armies disbanded, and the kingdom divided into a series of petty chiefdoms. However, throughout the tumultuous post-colonial and apartheid history of the region King Cetshwayo was remembered as the last Zulu king to rule an independent kingdom. He thus came to embody a spirit of resistance among Zulu-speaking royalists and traditionalists particularly in the internal struggles with apartheid in the region during the 1970s and 1980s.

The reconstruction of part of his nineteenth-century royal capital, oNdini, has stood as a monument for over fifteen years and continues to command a very special sense of place to Zulu royalists and traditionalists alike. It has also become a major tourist destination in the province and is increasingly being used by school groups in the teaching of the 'New South Africa' history syllabi.

BACKGROUND

oNdini, the site of King Cetshwayo's capital during his reign as the Zulu monarch from 1873 to 1879, is situated some 15 kilometres north of the White Mfolozi river within the precincts of the town of Ulundi, the administrative headquarters of the erstwhile self-governing territory of KwaZulu, and currently the shared seat of the Legislature of the new KwaZulu-Natal province. The name oNdini is derived from the Zulu *uNdi*, which means 'the lip', and refers to the rim of the surrounding basin. It is also a synonym for the uKahlamba (Drakensberg) mountains which, in the province, form a major geographical barrier between the eastern seaboard and the interior. The name would thus appear to be an

assertion of the impenetrability of the capital (S.B.Bourquin pers. comm.). While the presence of the original capital, prior to archaeological investigations, was merely marked by partially exposed hut floors and scatterings of pottery and broken grindstones, it was common knowledge among local Zulu-speakers that these were the remains of the old capital, oNdini.

After the defeat of the Zulu army at the battle of Ulundi on 4 July 1879, the oNdini iKhanda, and all of the military barracks (*amakhanda* pl.) satellite to the capital, were burnt by victorious British military forces. As a consequence the hut floors at oNdini baked, giving them a high archaeological visibility. Unfortunately, however, the remains of the capital were subjected to major destruction when, in pursuance of a land-betterment scheme in the 1960s and in defiance of local community sentiments which observed ritual restrictions on the use of the site, the then national Department of Land Affairs ploughed up the major portion of the ruins. The result was that only a small section of the capital, principally the *isiGodlo* or inner royal sanctum, remained reasonably undisturbed.

In 1981 the newly formed KwaZulu Monuments Council was asked by the KwaZulu leadership to investigate the establishment of an appropriate monument to the old Zulu order at oNdini. An archaeological project with the intention of reconstructing the layout and extent of the former capital had already been sanctioned at the site as a research exercise to enhance understanding of nineteenth-century Zulu society (Saitowitz 1988, 1990; van Schalkwyk and Rawlinson 1995; Watson and Watson 1990). Subsequent to the archaeological field research having been completed, the prime objective of the Monuments Council became the physical reconstruction of *isiGodlo* as a monument to the old Zulu order.

HISTORICAL OVERVIEW

The first quarter of the nineteenth century saw the rise and consolidation of the Zulu kingdom under King Shaka. He effectively brought numerous independent clans in south-east Africa under the economic, political and social control of a single power. The authority of the King was derived from the system of *amabutho* (age regiments). As young men came of age they would be formed into regiments to serve the King and nation, as soldiers, workers and as a police force. Each regiment had its own officers, name and uniform and each was assigned to a particular *ikhanda* (military barracks). These *amakhanda* were to be found throughout the kingdom but were more numerous around the *iKhanda* the King used as his capital. By the end of King Cetshwayo's reign in 1879 there were twenty-seven *amakhanda* in Zululand, many of which were to be found in the near vicinity of oNdini (Chadwick 1983; Irwin 1989; Laband and Thompson 1983). The King's *iKhanda*, or 'Great Place', was obviously the most important military centre and was where national ceremonies were held. It was here that

the *iBandla*, the Royal Council, gathered to discuss national issues, and from where the army was mustered and organized.

After King Cetshwayo had attained his majority and he himself had been mustered into a regiment he built and presided over three homesteads, each one named oNdini, the first, technically oNdini I, while he was still heir apparent, while oNdini II was built when he assumed power after the death of his father, King Mpande ka Senzangakhona, in 1872. According to reports, Cetshwayo ordered oNdini II to be built along the lines of his uncle's, King Dingane's, *iKhanda*, Umgungundlovu 'and the *izinduna* were sent to Dingane's Kraal to measure it and make it as far as possible the same' (Bourquin 1963). oNdini III, which he occupied for only a few months, was never completed. It was located some 2 kilometres east of oNdini II (Lugg 1949) and served as his principal *iKhanda* after he was reinstated as subjugate monarch by the colonial government in 1883. We are here concerned with oNdini II.'

The overall size and shape of the complex

The site covers approx. 35 hectares. Its location allows for natural downslope drainage and the slight elevation above the surrounding plain lends a cooling effect from the prevailing winds. Strategically, oNdini commanded an excellent view of the surrounding countryside.

The capital itself comprised the *isiGodlo* at the top of the site, and the *eziGabeni*—the two military wings (respectively the *uHlangothi*)—extending downslope and encircling the central parade ground. As with all Zulu *amakhanda*, oNdini was based on the elliptically shaped civilian Zulu homestead (Krige 1965). However, as it served primarily as the military and administrative centre of the kingdom, and as a consequence housed several thousand people, it was larger by a considerable order of magnitude. There is a little doubt that oNdini was elliptical in shape. Observers are unanimous on this, but its size has been reported to range from 'a huge circle in the grass, several hundred yards in diameter' (Mitford 1975:226), to '*Ulundi* ...is 500 yards in diameter' (ibid.: 231). Although both these observations were made in about 1881, after oNdini had been destroyed, the author remarks that the outline of the capital was still distinct (ibid.: 239). Krige (1965:233) states that 'these military kraals were usually large, the diameter of the outer fence being from 1200 yards to a mile, and the space between the inner and outer fence being occupied by about a thousand huts'.

Various observations between these extremes are, however, also on record: 'The first *uNdi* was a small kraal; the second was one of vast dimensions and became his capital' (the informant Baleni kaSilwana in Webb and Wright 1976:42). Bourquin and Johnstone (1991:17) reports that 'the King's kraal is at *Ulundi*, or *oNdini*,...where six regiments, numbering about 7000 men, were permanently quartered...the kraal was...about 500 yards in diameter' (Figure 19.1). The following observations were recorded in *The Graphic*, volume 19, January to June 1879: '*Ulundi*, or *oNdini*, was similar to the other military

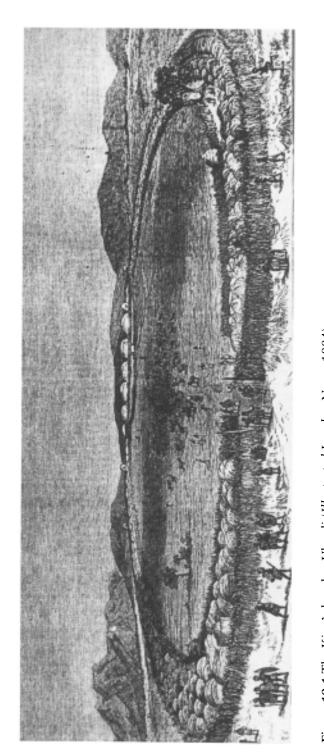


Figure 19.1 The King's kraal at Ulundi (Illustrated London News, 1884)

kraals, but of unusual size. It was elliptical in shape, the major axis being 700 yards, and the minor 550.' The British War Office (Intelligence Branch Records, 1881) recorded that 'it covered almost ninety acres...and...there were still a few Zulus...amongst the 1500 huts' (Morris 1966:573). However, there is no consistency to these observations. Baleni kaSilwana's description of oNdini as a centre 'of vast dimensions' (in Webb and Wright 1976:42) and claim that 'it takes full five minutes of tolerably quick walking to cross it' (Mitford 1975:239) make comparisons difficult. The foregoing leaves no doubt that oNdini was obviously a large centre but its actual dimensions could not be accurately ascertained from the references consulted.

The isiGodlo

It is not surprising that this part of the capital—where the King, the royal family and his entourage lived—received the greatest attention from visitors to oNdini Although observations vary, everyday life, the protocol observed on entering the capital, and the presence of specific features have been described. Besides reports by European travellers, a member of the royal household, Paulina Dlamini, related her experiences as one of the *umNdlunkulu* (seraglio) girls at oNdini (Bourquin 1986). Her descriptions have proven invaluable both in substantiating archaeological interpretations of the site, and in identifying *locales* and features that were archaeologically invisible.

The *isiGodlo* was separated from the other parts of the capital and had several side entrances for the exclusive use of its inhabitants and their servants. The sanctity of the *isiGodlo* is clearly illustrated in the testimony of Baleni kaSilwana:

men were strongly prohibited from entering the *isiGodlo*...they were killed if they did so...all the women slept in the *isiGodlo*...all the gates were shut up at night, the inner and outer ones...there were many guards...the King was the only male in the *isiGodlo* at night time.

(Webb and Wright 1976:42ff)

Further, for those summoned by the King to the *isiGodlo*, a special reverence had to be assumed:

on entering...one did so stooping until one actually got to the spot where to sit down...the *izinceku* (servants) also stooped but they did not go on all fours...everybody who was called in stooped, even men of high rank.

(Webb and Wright 1976:37-9)

The term *isiGodlo* is synonymous with both the physical area inhabited by the royal household, as well as the people residing within. All *amakhanda* in the kingdom possessed an *isiGodlo*, usually headed by a trusted senior woman of the royal house (Cowley 1966). It was, however, only to the royal *isiGodlo* at the capital that senior men of the kingdom presented young girls to the King as

servants to the King's wives. The royal *isiGodlo* was a prestigious possession which was inherited by successive Kings. According to the informant Mkhando, 'the *isiGodlo* was an attribute of authority...they were treated with great respect' (Webb and Wright 1982:152).

The King, his wives, and the *umNdlunkulu* girls (collectively the *isiGodlo*) all resided in the physical area of the *isiGodlo*. It was divided into two main sections, the 'Black reserve' (*IsiGodlo emnyama*) and the 'White reserve' (*IsiGodlo emhlope*). The King, his wives and the elite of the *umNdlunkulu* girls resided in the black reserve while the King's children and the balance of the *umNdlunkulu* girls lived in the white reserve (Borquin 1986; Webb and Wright 1982; Bryant 1967). The Black reserve was at the centre of the *isiGodlo* and the most sacred area, while the two White reserves, on either side adjoining the warrior sections, were of lesser importance. Palisades separated the warriors from this inner royal sanctum.

The uHlangothi

The warriors were quartered in the two wings that arched from either side of the *isiGodlo* down to the main gate. Each side was subdivided into numerous *isigaba* or sections, with each *isigaba* occupied by a particular regiment. The informant Mpatshana (Webb and Wright 1982:315–16) provides a detailed description of the *uHlangothi* at oNdini. He states,

thus at *oNdini* there were on the left side *uHlangothi* of the kraal looking towards the gate, first the *iZingwananda*, then the *iNhlabamasoka*, then the *uMkingoma*, *iziNkonkoni* and *ziSongo*, each of which was an *isigaba*. The other *izigaba* were three to six *amaviyo* (platoons) strong on the average.

We thus project that possibly 14 to 15 regiments were barracked at oNdini, a mustering of approximately 1,400–1,500 men.

The central parade ground

The major portion of the capital comprised the large central parade ground, the equivalent of the cattle enclosure in a civilian homestead. Here the King inspected his troops and cattle and conducted ceremonies and rituals of national importance. At the upper end of the parade ground, adjoining the *isiGodlo*, was a palisaded enclosure containing two smaller inner enclosures. The informant Mpatshana tells that 'the King washed at the upper end of the cattle enclosure, which was divided off...and in the smaller enclosure there was a still smaller one within which the King did his washing...at the opposite side were the calves' (Webb and Wright 1982:300). The King's meat was also prepared in this upper cattle enclosure before being transferred to the *isiGodlo*. This was to ensure that the public did not witness its preparation (Webb and Wright 1978).

The men's assembly was at the upper end of the parade ground outside the small inner cattle enclosure. The beer brewed by the *isiGodlo* girls would be brought to the men by *izinceku* (servants). Women were never allowed in the

cattle enclosure. The King was shaved and had his headring polished while at the place of the men's assembly. A large part of the day would be spent in this area by the King and his Councillors. As well as discussing national issues with them it was also where the King was groomed by his *izinceku*, and where he received visitors (Webb and Wright 1976).

The parade ground was where the warriors congregated to be inspected and dance for the King and his senior men. It was where national festivals were held and where the cattle were brought to be inspected before being allocated to the regiments for safekeeping. It was also where the warriors gathered on social occasions (ibid.).

The imizi and cattle enclosure to the rear of the main complex

To the rear of the *isiGodlo* and a little way from the main complex stood two homesteads. It was at these that the King's milch cows were kept and where his grain was stored. The women of the royal house would retire here to bear children and would remain there until the child could walk, before returning to the *isiGodlo*. Some *umNdlunkulu* girls were always in attendance at these homesteads and for this reason it was perceived as being an extension of the *isiGodlo* (Bourquin 1986; Webb and Wright 1982). It was here too that the royal coppersmiths practised their craft (Bryant 1967).

It is probably its duality of function that has given rise to the confusion surrounding its name. The informant Baleni kaSilwana claims the name to be *iziNkumbini* (Webb and Wright 1986), while Samuelson (1929) refers to it as *emaPhotweni*. These *imizi* (cluster of homesteads) are analogous to those known as the *Bheje* at Mgungungdlovu, and it is most probable that they served similar functions to those described from the latter, namely a place of ritual seclusion, copper-smithing and food preparation for the *isiGodlo* (Roodt 1992, 1993).

The palisades

A strong palisade surrounded the whole capital, but there were also palisades within oNdini separating the various parts, and even individual huts from one another. The inner palisades were not as robust, some being constructed only of reeds and tall thatching grass. At various intervals there were openings, or gates, both leading out of, and between sections. The main gate was at the lower end directly opposite the *isiGodlo*. Anyone coming to the capital would have to enter through this main entrance (Bourquin 1986:32–3; Webb and Wright 1982).

The estimates of the height and type of outer palisade varies in the records of observers. The stockade has been variously described as a barrier of thorn bush to a stout wattled barricade some 2 to 3 metres high (Bourquin 1963; Morris 1966; Emery 1977; Bryant 1967; Webb and Wright 1976). The most common estimates suggest a height of some $2\frac{1}{2}$ metres, made up of a double

row of stout timbers some half a metre apart at the base and crossing near the upper extremes.

Other significant features

Two features at oNdini that would have made an impression on any visitors are mentioned in early travellers reports. Mitford (1975:239) describes a building in the *isiGodlo* as 'a square tenement with glazed windows and a door'. *The London Graphic* of August 1879 carries a sketch of it in flames during the firing of the capital on 4 July 1879 by British forces. It has been described as a building of sun-dried bricks with a thatched roof, four rooms, and verandas both at the front and back. It was used as a reception and not as a living area and was referred to as the *indlu 'mnyama* or 'House of the Black reserve' (Bourquin 1986:32).

The other features were the shield huts or armouries (*unyango*). These were dispersed about the capital and were raised structures on stilts, some 3 to 4 metres above the ground, to keep rats and other vermin at bay (Webb and Wright 1976).

ARCHAEOLOGICAL FIELDWORK

Because the evidence regarding precise detail of the size and layout of the capital was partly contradictory (e.g. Webb and Wright 1976, 1979, 1982, 1986; Bourquin 1986; Samuelson's 1929 stylised diagram) a detailed ground survey and excavation programme was carried out. As a consequence of oNdini having been razed by the British forces in 1879, and because of the predominantly organic nature of the building materials used in its original construction, very little of the capital survived; barring the baked hut floors and accumulations of scattered domestic debris. The latter, exposed to the vagaries of natural decay and various human disturbances over the last 100 years had, however, largely been moved out of their primary contexts. This was exacerbated over the greater part of the site by the damage caused by the ploughing initiatives of the 1960s.

oNdini, as modelled on Mgungungdlovu (Parkington and Cronin 1979; Roodt 1992, 1993), probably comprised some 1500 beehive structures and housed some 3,000 to 4,000 people of varying social rank. However, neither the encircling palisades nor any *in situ* structures remained. Since it was impractical to excavate the entire site (approx. 35 hectares) a strategy was formulated that attempted to relocate those salient features of the capital that had been disturbed, particularly those within the plough zone. Consequently, two prime objectives were identified:

1 to attempt to plot the positions of the middens, hut floors, palisades, activity areas, and any other features that may have been present, so as to determine as closely as possible the shape and size of oNdini; and

2 to select a number of middens for excavation in order to obtain samples of material that coul d possibly provide interpretation of subsistence and economic activities.

As a number of fired hut floors were already exposed within the *isiGodlo* the excavation of these was given priority. Of the more than 75 hut floors identified, 33 were excavated as individual units. Several others that were uncovered were in such a poor state of preservation that their perimeters could neither be seen nor extrapolated. The presence of several more were found in the plough zone, but these were sufficiently disturbed to make individual floors indistinguishable.

The south-eastern flank of the Royal Enclosure has been left unexcavated should any further investigation be considered in the future.

The rectangular tenement building

Excavation of the remains of the rectangular tenement building (the *indlu 'mnyama*) yielded an archaeological feature that was surprisingly well preserved. The clay sun-dried brick walls appear to have collapsed at the time of the firing of oNdini, thereby sealing the contents of the building. Consequently the preservation of materials under the collapsed walls has been far greater than that of the thatched beehive-hut type structures. The evidence indicated that the four-roomed building was both whitewashed and glazed, and had been constructed with European-styled doors, windows and rafters. A set of medicine grinding stones and large quantities of broken liquor bottles were located in the two rear rooms, respectively. This evidence has provided sufficient information to ascertain the design, construction technique and the respective uses of the building; and will allow for its ultimate reconstruction to be realized.

The palisading

The excavations were also successful in establishing the position of the original outer palisades. Observations made of the current land surface and the distribution of varying grass types provided a fairly accurate indication of where the outer palisade at the rear of the *isiGodlo* had been located. In order to verify its more exact orientation seven test trenches were excavated, at intervals over a distance of 100 m. The only material evidence of the original palisade recovered were a few carbonized pieces of timber. However, disturbances to the crumbling bedrock were observed that were sufficiently regular and well defined to presume that the archaeological trenches had in fact exposed the original anchor channels of the old palisade. Further, the exposed deposits on one side of these 'double-row channels' were sufficiently different in appearance from the deposits on the opposite side to suggest that the former comprised the original channel fill. Excavations also confirmed the literature reports that the outer palisade consisted of a double row of timbers that crossed about 2 metres above ground level; the 'double-row channels' here being some 75 cm apart.

Little success was, however, had in locating the historically recorded inner palisades and screens, that separated clusters of huts from each other, within the *isiGodlo*. Several trenches were laid out, traversing the areas that presumably would have been screened or palisaded, but to no avail. Historical reports on the layout and construction of the *isiGodlo* (Bourquin 1986:32–3) indicate that these inner palisades were built of reeds and lighter timbers. Consequently, very little indication of these would have survived the firing of the capital, and any subsequent weathering.

Middens

In the course of the site survey a number of middens were identified that lay both within and outside the projected perimeter of the capital. As these appeared to contain material that could potentially provide further information on diet, economy and specific activities performed at the site, a number were excavated. The analysis and interpretation of the midden material provided valuable new insights into social stratification and the location of very specific activity areas within and around the capital complex, and has been described in detail elsewhere (Watson and Watson 1990).

RECONSTRUCTION

The erection of the palisade around the *isiGodlo* and the *isiBaya samaThole* (calf pen) and the construction of fifty-two *amaqhughwane* (beehive huts) over the more complete excavated floors were the most conspicuous part of the reconstruction programme (Figure 19.2). The outer encircling stockade is a double-rowed timber construction extending some 300–400 m, with an entrance at each end. These two entrances have been arbitrarily placed, but are in close proximity to where original entrances are described to have been (Bourquin 1986). They have, however, been made wider than the original entrances to facilitate easier access for visitors.

The inner palisade and calf enclosure comprise a single row of timbers, with several gates allowing access to the minor cattle enclosure and parade ground. These gates are of 'traditional size', and the palisades are some 2 m in height. While the outer palisade has been positioned in accordance with the archaeological evidence, the inner palisade and cattle enclosure have been positioned according to reasoned calculations as to their original position—the minor cattle enclosure having been constructed slightly smaller than the original probably was.

DISCUSSION

As a research programme, the primary objective of the excavation and survey project was achieved early on and significant new insights into nineteenth-



Figure 19.2 Reconstructed huts at oNdini

century Zulu royal social dynamics were obtained. Subsequently, on the basis of both the literary evidence consulted and the archaeological data retrieved, the *isiGodlo* at oNdini was reconstructed both as a monument to the old Zulu order, and as a tourist and interpretive centre. It is currently maintained primarily as such.

Soon after the reconstruction was completed it became increasingly clear that maintenance would soon become a major activity at oNdini. In particular, the *amajilo* (plaited grass ropes) used to tie down the *indlindli* (final thatch cover) of the huts requires continual repair. Constant attention is also required to the destructive action of borer beetles in the wattled lattice-frame of the huts. The latter is controlled most effectively by traditional practice, the burning of smoky fires in the huts' hearths. This appears to be more effectual than the continual use of industrial fumigants.

The reconstructed oNdini, and its satellite cultural museum, has become a major tourist attraction in the province. 'Zulu', and the battlefields of Isandlwana, Rorke's Drift, Khambula and Ulundi have become very marketable commodities in the Afrotourism industry. In order to service this industry, attractions such as oNdini need to be maintained. As a consequence, the reconstruction and maintenance of these traditional dwellings and structures over the last fifteen years have revived and retaught a set of skills that were fast disappearing with the older generation as *amaqhughwane* (beehive huts) are no longer frequently constructed by rural people due to an increasing

scarcity of the traditional building materials required. Thus, in servicing the tourist industry, the skills required to construct the vernacular architecture of the nineteenth century are being preserved and passed on. Indeed, the oNdini reconstruction crew have, over the last five years, been commissioned as consultants on a number of private-sector Afrotourism ventures in the region and, in 1997, part of the crew travelled to Zimbabwe as guests of that government to assist with the reconstruction of Bulawayo, the Matabele King Lobengula's nineteenth-century capital.

In a new South African order the symbolism and sense of place that oNdini embodies are an affirmation of an African contribution to the very rich cumulative history of South Africa. This was, until recently, actively denied in the official history portrayed in previous Christian Nationalist syllabi and yearbooks. Of the *c.* 25,000 visitors to the oNdini complex each year, 65 per cent are school pupils. The greater majority of these are Zulu-speakers. Monuments such as oNdini, in conjunction with new school syllabi and museum curricula programmes are now increasingly allowing a new generation to not only regain access to their own previously denied histories, but also to share in the rich collective histories of a multi-cultural society.

As is evidenced from the literature review the *isiGodlo* at oNdini, as the inner royal sanctum, was a hallowed locale during the occupation of the capital. Today, as a monument, it continues to be accorded that sanctity by traditionalists and royalists in respect of the linked institutions of *isiGodlo* and *umNdlunkulu* (royal house) (cf. the testimony of Mkhando above, 'the *isiGodlo* was an attribute of authority...they were treated with great respect' (Webb and Wright 1982:152).

The reconstruction at oNdini has also come to embody an extremely strong sense of 'political place' in its perceived marking of lost Zulu sovereignty and the colonial and subsequent subjugation of its people. Its establishment as a monument in the early 1980s, seen against the internal liberation politics and the wrestling with apartheid structures in the region, was thus also a strong political statement: one of an assertion of Zulu primacy in the province, and a recognition of the role of traditional leadership and the institution of the *umNdlunkulu* (royal house).

In a post-apartheid South Africa both the role of traditional leaders and the institution of the *umNdlunkulu* remain at centre stage in current socio-political debate around land restitution and effective local government. Within an emerging South African democracy national policy strives to vest individuals with title in land and establish elected local government structures. In contradistinction to this stands the traditional order where *iSilo* (the King) and the *amaKhosi's* (Chiefs) inherited power is vested in their right to allocate and rescind to individuals, rights of tenure over communal land. While it would be inappropriate to engage this debate here, it can, however, be argued that the strong sense of 'political place' the oNdini *isiGodlo* embodies is once again revived; now by a parochial interest group as a symbol of resistance for an

institution perceived to be under renewed threat. From a sectarian point of view, oNdini, as a monument, lives.

NOTE

This chapter is based on the field-notes of Robert J.C.Rawlinson who was tragically killed in a car accident in August 1997. This paper is dedicated to his archaeological work at oNdini. 'Hamba kahle mfowethu!'

REFERENCES

Bourquin, S.B. (ed.) 1963. The first six months of the Zulu War of 1879. Unpublished manuscript.

Bourquin, S.B. (ed.) 1986. *Paulina Dlamini: servant of two kings*. Compiled by H.Filter. Pietermaritzburg: University of Natal Press.

Bourquin, S.B. and T.M.Johnstone 1971. *The Zulu War of 1879*. Durban: Department of Bantu Administration.

Bryant, A.T. 1967. The Zulu People. As they were before the white man came. Pietermaritzburg: Shuter & Shooter.

Chadwick, G.A. 1983. Research on historical places of importance to KwaZulu and the formulation of recommendations. Unpublished manuscript, KwaZulu Monuments Council.

Cowley, C. 1966. KwaZulu, Queen Mkabi's Story. Cape Town: STRUIK.

Emery, F. 1977. The Red Soldier: letters from the Zulu War of 1879. London: Hodder & Stoughton.

Irwin, M. 1989. The amaKhanda of the Mahlabatini Basin. Unpublished report, KwaZulu Monuments Council.

Krige, E.J. 1965. *The Social System of the Zulus*. Pietermaritzburg: Shuter & Shooter. Laband, J.P.C. and P.S.Thompson 1983. *Field Guide to the War in Zululand and the Defence of Natal*, 1879. Pietermaritzburg: University of Natal Press.

Lugg, H.C. 1949. Historic Natal and Zululand. Pietermaritzburg: Shuter and Shooter. Mitford, B. 1975. Through the Zulu Country. Durban: T.W.Griggs & Co. (Reprint)

Morris, D.R. 1966. The Washing of the Spears. London: Jonathan Cape.

Parkington, J. and M.Cronin 1979. The size and layout of eMgungungdlovu: 1829–1838. South African Archaeological Society, Goodwin Series 3: 133–48.

Roodt, F.R. 1992. Evidence for girl's initiation rites in the *Bheje umuzi* at eMgungungdlovu. South African Journal of Ethnology 15 (1): 41-5.

Roodt, F.R. 1993. 'n Rekonstruksie van Geelkoperbewerking by *eMgungungdlovu*. Unpublished MA dissertation, University of Pretoria.

Saitowitz, S.J. 1988. Classification of glass trade beads. Samab 18 (2): 41-5.

Saitowitz, S.J. 1990. Nineteenth century glass trade beads from two Zulu royal residences. Unpublished MA dissertation, University of Cape Town.

Samuelson, R.C.A. 1929. Long, Long Ago. Durban: Knox Printing.

Van der Merwe, N.J., S.J.Saitowitz, J.F.Thackeray, M.Hall and C.Poggenpoel 1989. Standardised analyses of glass trade beads from eMgungungdlovu and oNdini, nineteenth century Zulu capitals. South African Archaeological Bulletin 44 (150): 98–104.

van Schalkwyk, L.O. and R.J.C.Rawlinson 1995. Report to the KwaZulu Monuments Council on the Archaeological Investigations of *oNdini*, King Cetshwayo's Royal capital: 1873–1879. Unpublished manuscript, KwaZulu Monuments Council.

- Watson, E.J and V.Watson 1990. 'Of commoners and kings': faunal remains from *oNdini*. *South African Archaeological Bulletin* 45 (151): 33–46.
- Webb, C. de B and J.B.Wright 1976. *The James Stuart Archives, Vol 1*. Pietermaritzburg: University of Natal Press.
- Webb, C. de B and J.B.Wright 1978. A Zulu King speaks: statements made by Cetshwayo ka Mpande. Pietermaritzburg: University of Natal Press.
- Webb, C. de B and J.B.Wright (eds) 1979. The James Stuart Archives, vol. 2. Pietermaritzburg: University of Natal Press.
- Webb, C. de B and J.B.Wright (eds) 1982. The James Stuart Archives, Vol 3. Pietermaritzburg: University of Natal Press.
- Webb, C. de B and J.B.Wright (eds) 1986. The James Stuart Archives, vol. 4. Pietermaritzburg: University of Natal Press.

20 Arkaim Archaeological Park: a cultural—ecological reserve in Russia

GENADII B.ZDANOVICH

INTRODUCTION

By early 1992 the Arkaim nature and historical reserve had appeared on the Russian map. The reserve is a sub-division of the well-known Ilmen Reserve managed by the Museum of Natural History and Geology from nearby Chelyabinsk and is situated in the steppe zone of the eastern foothills of the Urals. The new reserve was created because of the unusually high concentration of archaeological sites in the sheltered part of the valley of the Bolshaya Karaganka River. In an area measuring approximately 4,000 hectares, seventy archaeological sites have been found including Stone Age settlements, early medieval cult buildings, and winter and summer camps of late nomads. The main archaeological site, however, which attracted specialists' attention was a Bronze Age fortified settlement (eighteenth—sixteenth centuries BC).

THE BRONZE AGE ARKAIM SETTLEMENT

The Bronze Age settlement was laid out as a clearly defined circle and was unusually well preserved, for example, the height of the outer defensive wall made of earth and wood was between 60 and 90 cm at the time that the site was discovered. In photographs taken from a low-flying aircraft (Figure 20.1) two concentric rings formed by fortifications were clearly distinguishable as was a central area and a street encircling this citadel. The layout of particular dwellings could also be discerned, as could four entrances leading into the settlement and many other spatial and architectural details (Figure 20.2), the significance of which were later clarified in the course of archaeological and geophysical investigations.

Adjacent to the fortified settlement, ancient fields, fragments of enclosures for livestock and remains of a rich necropolis were discovered. Within the confines of the valley where the site was located a number of small non-fortified settlements were also found, the dates of which coincided with the



Figure 20.1 Aerial photograph of Arkaim

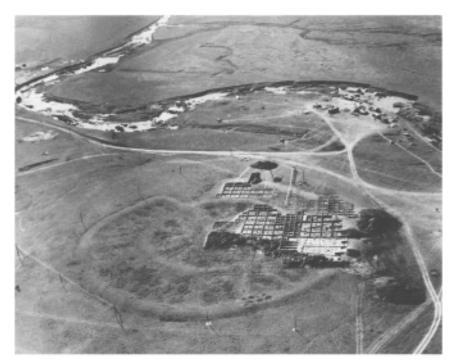


Figure 20.2 Aerial photograph of Arkaim being excavated

period when the fortified settlement had been in use. On the nearby ridge of hills encircling the valley numerous round and square stone enclosures were found, as were also stelae and other traces of human activity dating back to the Bronze Age.

Excavations of the settlement site began in 1987 when construction work was being undertaken to provide an irrigation system for local farms. The Arkaim valley was due to become the bed of a large reservoir. Preliminary archaeological investigations supported the conclusions of the earlier survey work and confirmed that Arkaim was unique from both historical and architectural points of view. Large dwellings laid out close up against each other like spokes in a wheel formed two complete rings. The street encircling the settlement and radial streets, a complex water-supply and drainage system, foundations for towers in front of the gates, niches and passages within the mighty defensive walls (6 feet thick) were investigated and all contributed to what was an unusually clear picture of an ancient town radically different from the view of the culture of the inhabitants of the steppes in the Southern Urals during the first half of the second millennium BC previously held by scholars. Terms such as 'civilization', 'urban culture' and 'statehood'—usually associated with other periods and other locations—came to mind for those specialists first confronted by Arkaim. It soon became obvious that the remains were of pre- or proto-civilization and a 'proto-city'. It is precisely in this respect that Arkaim is unique. In the Mediterranean basin, China and Americas thin archaeological levels linked with the period when statehood was beginning to emerge were usually destroyed, when thick habitation layers of later periods formed above them over thousands of years. The picture found in the Southern Urals is very different. Here civilization in the full sense of the word had not taken shape. Because of marked climatic change the narrow strips of land along the banks of small rivers in the steppe occupied by 'proto-urban' centres in the eighteenth—sixteenth centuries BC were never again actively exploited. In this instance remains of settlements and burial grounds dating back almost 4,000 years had come down to us in a well-preserved state. It is clear today that they are a source of potentially enormous information about the earliest state of civilization.

At the time when Arkaim was discovered, only a single settlement dating back to the eighteenth—sixteenth centuries BC was known in the Southern Urals and that had been badly destroyed—Sintashta (Gening *et al.*, 1992). The discovery of Arkaim provoked intensive searching for other sites of a similar type. With the help of aerial photography and reconnaissance, eighteen fortified sites have now been discovered (Zdanovich 1995:54–62). This has made it possible to define in general terms the territory over which these proto-urban centres were scattered—an area that subsequently came to be known as the 'Land of Towns'. It measures 400 km north—south and 120–150 km east—west.

Apart from the fortified centres, numerous small non-fortified villages and seasonal camps were also identified within the survey area. Their positioning in relation one to another and to the larger settlements enabled the land worked

by the population of any particular 'proto-town' to be determined. On the basis of evidence from that part of the 'Land of Towns' which has been most thoroughly investigated so far, the radius of such areas appears to have been usually between 20 and 30 km. This suggests that the total area of a 'territorial unit', complete with the subordinate non-fortified settlements within it (of a secondary or tertiary order), would have been between 1,500 and 2,000 sq. km. It is interesting to note that the newly discovered fortified structures varied in layout, the basic shape of which could be an oval, circle or square. The earliest of these were probably settlements arranged in an oval pattern followed later by small circular and square settlements. Without doubt all these sites relate to one and to the same cultural—historical level. The various geometric symbols reflected in the architectural layout of the 'towns' may point to the distinctive features of the population's religious beliefs. Among the newly discovered sites of this 'proto-urban' civilization Arkaim continues to appear to be the most important.

THE THREAT OF DESTRUCTION AND PUBLIC RESPONSE

As noted above, in 1987–89 Arkaim was threatened by inevitable destruction. The dam for the new reservoir was already built and many millions of rubles had been spent on the creation of an irrigation system. All that remained to be done was to flood the area. Only decisive intervention by the Russian Academy of Sciences and strong public protest eventually succeeded in saving the site and the Arkaim Valley from an over-hasty and destructive land-improvement scheme. At that time no one would have dreamt that it would be possible to halt an enormous state construction project in order to save an archaeological site. Yet, after a concerted letter-writing campaign to the press and the Urals Branch of the Academy of Sciences coupled with large demonstrations in the streets, that is what did indeed happen and an experimental nature reserve and archaeological park was set up in the territory that had been earmarked for flooding.

THE NEED FOR A HOLISTIC APPROACH

Until recently a considerable part of the territory in question was cultivated (1,700 hectares). Birch thickets occupied another 35 hectares. The remaining area consisted of pasture that was of poor quality as a result of over-grazing. In addition the reserve is criss-crossed by dirt roads and electric cables and there are still sand and stone quarries in it. The natural state of the river beds has been altered by the constant erosion of small dams and containment of the rivers' upper reaches. In addition, the land in the reserve has been subjected to the impact of industrial air pollution.

Nevertheless its remoteness from industrial centres and important farming land and the fact that it is relatively inaccessible for day-trippers or holiday-makers from the towns have helped preserve the majority of the local flora and fauna within the reserve. Small numbers of rare animals listed in the *Red Books* of the USSR and the International League for the Protection of Wildlife that record details of endangered species have survived here, such as the little bustard, mute swan (*Cygnus olor*), eagle owl, black raven and a species of falcon used for hunting hares (*Falco ianarus*).

The combination of the natural and cultural features noted above provides an excellent environment for the development of a wide range of research projects in history, archaeology and natural history in the Arkaim reserve. There is also ample scope for study programmes and public awareness campaigns. In short, it is still possible in the Arkaim Valley to reconstruct most of the components of an historical landscape (including some species of animals and plants and even their interdependence). Tracts of steppe-land and mixed woodland can be reestablished, as can meadowland and thickets of woodland with undergrowth bordering rivers, all complete with their diverse wealth of wildlife.

In collaboration with a number of research institutions affiliated to the Russian Academy of Sciences, Chelyabinsk University has developed a wide-ranging research programme entitled Man and Nature in the Southern Urals in the Late Pleistocene and Holocene Periods. At the end of the twentieth century human interaction with nature has come to constitute a threat to humanity itself. The structure of modern, industrialized civilization is not in tune with the natural cycles of the biosphere. Much research in the fields of both pure and applied sciences is being concentrated on the search for new concepts of harmonious interaction between humans and their environment. The selection of appropriate solutions for ecological problems at a global or regional scale is impossible before long-term environmental trends have been identified. Equally, detailed knowledge of the nature of interaction between people and nature at various stages of human activity ranging from the distant past to the present day is also indispensable.

The geographical location of the Arkaim reserve and the 'Land of Towns' is also an important factor. It occupies the Trans-Ural peneplain, where numerous tributaries of the Ural and Tobol Rivers rise. This is a unique area where rivers bringing water to Europe and Asia converge, flowing south down to the Caspian, on the one hand, and north to the Arctic Ocean, on the other. Protection of the sources of these rivers and their clean water is an urgent priority, which over the years has become increasingly important. The scale of the task is enormous, but it is nevertheless one which our generation can no longer afford to defer.

As noted above, the resolution of any major ecological task needs to be based on detailed knowledge of patterns of change within a particular environment over a considerable period and also of the history of interaction between human communities and that natural environment. Detailed knowledge of this kind can only be obtained on the basis of thorough investigation of archaeological materials, ancient written records and other diverse sources that shed light on human interaction with nature within the context of a particular habitat. The significance of this newly organized reserve is all the greater in view of the fact that it was set up in the Chelyabinsk Region, which is bedevilled by a very fraught ecological situation. In the north of the area there is an inordinate concentration of industrial installations over-stretching the ecological potential of the landscape to an unreasonable degree, while at the same time inappropriate organization of agriculture has been undermining ecosystems throughout the Urals region. The work carried out in the Arkaim reserve will to a certain extent serve to reduce contradictions between humanity and nature and to provide a foundation for the emergence of the theory and practice of a whole new approach to ecological questions. Local agronomists, chairmen of state farms and those in charge of regional and local administration have already begun to show an interest in the activities currently underway at Arkaim. Other important aspects of the work carried out at the reserve are its publishing activities, information service and recreation facilities.

The current sense of rootlessness experienced by the individual in our society and the loss of a firmly rooted sense of national identity that have coincided with a new emphasis on materialistic values (which cannot be adequately offset by an unthinking return to religious morality) make it imperative that importance be attached to consciousness-raising, one of the traditional pursuits of the Russian intelligentsia.

EDUCATIONAL POTENTIAL

The Arkaim Reserve has limitless potential as a historical and education centre. The comprehensive programme envisaged by the organizers of the project provides for a survey of all archaeological sites in their current state and in reconstructions significant both with regard to material culture and to the landscape situation. A broad, informal, educational programme is on offer to holiday-makers anxious to learn about the origin and history of a number of Indo-European peoples and also that of the modern population of the Urals, Kazakhstan and Bashkiria. Plans have been drawn up for the creation of an open air museum containing a full reconstruction of the buildings (e.g. Figure 20.3) within the proto-city of Arkaim and those relating to the manufacturing and agricultural activities engaged in the eighteenth-sixteenth centuries BC. The education centre will also include a Museum of Human-kind and Nature. Key features of the museum now under construction will be archaeological and ethnographic collections reflecting the history of the material and spiritual development of the communities living in the steppe-land and wooded-steppe ecosystems of the Urals and Transuralia.

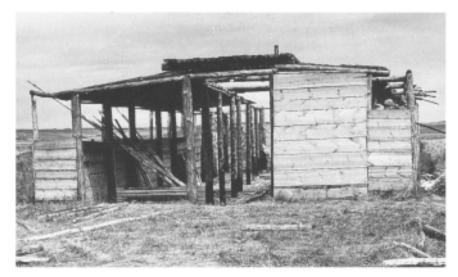


Figure 20.3 Reconstruction of Bronze Age dwelling

The education centre will enable students from universities and teacher-training establishments of the Urals and Volga regions and also from Western Siberia to receive practical training in archaeology, biological fieldwork, soil and environmental sciences and museum management. Teenagers still at school will have the chance to learn about a wide range of scientific methods used in archaeological research. The first attempts by the education centre to put together study programmes for older school children and university students from both Russia and abroad, for instance a Soviet—American project, demonstrated how effective this aspect of the work carried out in the Arkaim Reserve could be. American students interested in Russian history visited the Reserve for two weeks to study with their Russian counterparts and work with the archaeological specialists on site. Most of this educational work is funded by the municipal and regional education authorities as part of students' formal curriculum. Some specialists working at Arkaim also arrange holiday classes for interested young people from the region.

Educational programmes devised for visitors to the reserve are of ten or twenty days' duration and they are designed to enable people to immerse themselves as far as possible in the way of life peculiar to their human ancestors from various chapters of the past and include actually helping with the ongoing archaeological work at the site.

Future plans for the reserve also include the construction of a special 'village' for research staff, the beginings of which already exist (Figure 20.4). This will consist of comfortable cabins complete with garden plots. The idea behind such a plan is the hope that a number of leading specialists may be prepared to live at the Arkaim Reserve all the year round. The creation of conditions making it

possible for them to engage in research work and earn their living out at the Centre is a vital prerequisite for the successful functioning of a multidisciplinary research centre and experimental reserve of this kind.

The Arkaim Reserve hopes through its education programme, its Museum of Humankind and Nature and active use of the mass media to raise the level of public awareness regarding questions in connection with the interaction between humanity and the environment, to emphasize the importance of efforts today for the future to enhance the environment and to provide models of ecologically sound agriculture that does not destroy nature and enables humans to live in harmony with it. The Arkaim Reserve aims to focus the local population's attention and also international public opinion on the desperate situation of the steppelands in the heart of Eurasia: this extremely vulnerable and unique ecosystem is on the brink of total destruction brought on by human activity.

The resources at the Reserve's disposal for the implementation of these extensive plans are very meagre. The economic problems facing Russia today mean that the fate of many of the programmes planned so far hangs in the balance. At present funds for the protection of this unique cultural and environmental reserve have been set aside by the administration of the Chelyabinsk region and the city's state university. However, because of the difficult financial position in which state institutions currently find themselves, these funds are limited in the extreme. The second source of financial help for developing the reserve is the material support provided by local state farms and



Figure 20.4 The beginnings of an archaeologists' research compound

industrial enterprises. It would no doubt be premature to hope for donations from rich commercial companies or 'New Russians' in support of long-term or socially significant programmes. On the one hand, commercial enterprises are only just beginning to accumulate capital assets, and on the other, those heading such new enterprises have only very low-level cultural aspirations. Nevertheless the Arkaim Reserve is growing steadily, albeit slowly and mainly thanks to the energetic and selfless efforts of a small core group of enthusiasts.

These members of staff are well aware of the responsibility that they have taken on themselves both in the context of the international ecological movement and with regard to the Russia of the future. Today post-socialist Russia finds itself without a public or state ideology, apart from the 'get-rich-quick' mentality. New ecological and historical knowledge and a modern approach to ecology, once they have been properly taken on board by the general public, need to become a crucially important ingredient of the country's future ideology of integration. This ideology needs to blend together the interests of the natural environment, the individual and society and the quest for a new economic model. The latter should start out from the priority of values rooted in nature and acceptance of the need to abandon the 'Gospel' of development at any price for that of stabilization. Our efforts are aimed at developing a new approach to the history of nature and society and the interaction between them that is firmly based on a sense of responsibility to both.

The need to devise an integrative ideology is accepted wholeheartedly by Russia's educated elite. Our practical efforts in the Arkaim Reserve can be regarded as a modest but nevertheless essential step in this direction.

REFERENCES

Gening, V.F., G.B.Zdanovich and V.V.Gening 1992. Sintashta: archaeological sites of Aryan tribes of the Ural-Kazakh steppes. Chelyabinsk: Yuzhnyi-Ural.

Zdanovich, G.B. (ed.) 1995. Arkaim: research, quests and discoveries. Chelyabinsk: Kamennyi Poyas.

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