note

Post-processualism, professionalization and archaeological methodologies. Towards reflective and radical practice
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Abstract

In recent years the gap between archaeological theory and practice has been closing, but although there have been calls for 'reflexivity', there has been little critical examination of its meanings. Proposed reflexive methodologies still perpetuate many traditional hierarchies of power, and fail to consider the creative nature of excavation and post-excavation. Much archaeological work in Britain, Europe and North America also takes place within the commercial sphere, and post-processual ideas cannot advance archaeological practice unless they can be implemented in contract archaeology. This paper examines theoretical considerations of reflexivity, representation, subjectivity and sensual engagement to highlight their relevance to everyday archaeological practice, and their political potential to undermine existing hierarchies of power within commercial archaeology.

Keywords

reflexivity; post-processual; subjectivity; hierarchies; multivocality; hermeneutic

Introduction

My paper explores links between archaeological theory and practice, particularly ideas emerging from 'post-processualism', a term that itself encompasses many different approaches to the archaeological past and interpretative present (see Hodder 2001; Holtorf and Karlsson 2000; Johnson 1999). In particular, I will examine the issue of on-site reflexivity, but will argue that this term has not yet been defined satisfactorily. Many reflexive methodologies so far proposed are 'top-down' approaches heavily reliant on digital recording and only applicable to the largest projects. These perpetuate traditional hierarchies of power and representation, and fail to consider the subjective, creative nature of archaeological work. I propose ways in which these power structures can be undermined through the adoption of more self-critical, 'bottom-up' methodologies.

During the development of processual or new archaeology, its concern with sampling and analysis meant many field practitioners were receptive to it, despite more esoteric offerings (e.g. Clarke 1968). In the many strands of post-processual thought that emerged from the 1980s, social, political and cultural theories about people and societies were seen as equally or even more

relevant than the means of obtaining data, and archaeological practice was largely ignored. This has alienated many field archaeologists, and convinced them (no matter how erroneously) that theory had little or no relevance to them. Leading 'theorists' are trying to bridge the divide, but theoretically informed 'practitioners' have also been working towards this. There are hopeful signs that the 'era of specialists in Theory with a capital T has probably passed' (Pluciennik 2001, 24). Some ideas derived from theoretical debates have begun to percolate into field practice, as with discussions of so-called 'structured' deposition (e.g. Hill 1995; Pollard 1995), which means that greater care is now taken when prehistoric sites are excavated and analysed.

Gavin Lucas (2001a; 2001b), Ian Hodder (1997; 1998; 2000) and John Barrett and co-workers (Andrews and Barrett 1998; Andrews *et al.* 2000) have begun to explore the relationships between theory and practice, but these approaches have been criticized for their apparent failure to offer any methodological improvements or advantages to on-site excavation and recording methodologies (Roskams 2001, 269–70). This remains a widespread view amongst practitioners in developer-funded archaeology. This is a pity, for I believe that there are practical applications arising from post-processual discussions. Developer-funded contract archaeology, sometimes called CRM or cultural resource management archaeology, increasingly forms the majority of archaeological work carried out in Britain, Europe and North America. Although there are many problems with this archaeology, there is also great potential. Post-processual archaeologists must demonstrate they can make real contributions to such projects if they wish to have an impact upon both archaeological thought and practice.

I will refer in particular to three projects featuring more reflexive methodologies – Çatalhöyük in Anatolia, Turkey; and in Britain, Leskernick on Bodmin Moor and Framework Archaeology developer-funded excavations at Perry Oaks and Heathrow (and subsequent projects at Stansted and Gatwick). Although I critique some aspects of these, I hope this is productive and positive criticism. Some published comments on Çatalhöyük in particular have been unwarranted (e.g. Hassan 1997). Friends and colleagues worked very hard on these projects, but I do feel that some questions of archaeological practice have not been explored as fully as they might have been.

Towards embodied, 'practical' theory

> But in a flash, as of lightning, all our explanations, all our classifications and derivations, our aetiologies, suddenly appeared to me like a thin net. That great passive monster, reality, was no longer dead, easy to handle. It was full of a mysterious vigour, new forms, new possibilities. The net was nothing, reality burst through it (Fowles 1977, 309).

The history of British archaeological methodologies has been outlined elsewhere, including the development of single-context planning and recording (Harris 1989; Lucas 2001a; Pearson and Williams 1993; Spence 1993). Individual excavators became responsible for planning and recording, whereas previously this tended to be carried out by site supervisors or

the director. By the late 1970s most British archaeological units were using individual pre-printed cards or sheets for each context excavated and recorded. These moves were part of a professionalization of archaeology, which in Britain accelerated with the introduction of PPG 16[1] and developer funding. There have been benefits from this, including improved sampling and data processing techniques, but there have also been many problems, due in part to the negative, divisive effects of competitive tendering and direct developer-funding (Adams and Brooke 1995; Chadwick 1998; 2000a; Cumberpatch and Blinkhorn 2001). On excavations and during post-excavation work an essentially sensual, subjective experience has become increasingly mechanistic, and information recovery has been separated from processing and interpretation.

Single-context planning and recording might be considered empowering (Tierney 2001), but breaking down complex tasks into constituent parts to complete them rapidly is fundamental to industrialized capitalist modes of production (Shanks and McGuire 1996). In the present 'top-down' excavation and recording methodologies, archaeologists on-site and in the post-excavation process have limited intellectual input, and each worker often only comprehends a small piece of the overall production. Archaeologists on developer-funded projects are part of an alienated division of labour, and there has been a proliferation of hierarchical structures of authority (Hamilakis 1999, 68). Even recent theoretical discussions fail to address the embodied, sensual encounters with the past that are at the heart of so many people's experiences and enjoyment of archaeology, whether excavating on-site or analysing artefacts and ecofactual material.

For excavators, including those who are vehemently 'anti-theory', it is their physical work through which they articulate themselves. The ability to dig features well, to discern difficult interfaces and resolve complex sequences, and to produce meticulous plans and section drawings, are skills that are highly admired. Younger archaeologists aspire to work in such ways, and these abilities become part of individual biographies and stories. This is the consummate skill of daily practice, of people using their hands to craft and create (Figure 1). It is a sensual competence and accumulation of embodied memories, an imaginative 'poetics of tool use' (Ingold 2000, 406). Hence the real awe amongst non-archaeologists or the less experienced when, in the hands of an experienced person, features emerge as if by magic from the soil, or a reconstructed pot appears from fragmented sherds. This physicality is often devalued, however, and on many projects skilled professionals can be regarded as little more than unskilled labourers. Their abilities and the excavation process fall outside site reports and theoretical discussions (Chadwick 2000a; Lucas 2001b).

The analysis and interpretation of artefacts and ecofacts, itself the product of a lengthy process of acquiring practical skills and widespread knowledge of material and form, is also often reduced to little more than cataloguing data (Blinkhorn and Cumberpatch 1997). Specialists are rarely part of project planning, and are often expected to analyse their material with little contextual information, or are not told who else will be working on other categories of material during post-excavation. Self-employed or independent

Figure 1 The poetics of practice . . . (Photomontage by Anne Leaver, from photographs by Adrian Chadwick and Paul Huckfield).

specialists are often now technically competitors with one another, and it has become difficult to discuss material and share opinions. Many excavators and managers feel that artefact or ecofact analysis is boring, and it too is devalued.

Have projects such as Leskernick, Çatalhöyük and Heathrow done much to address these issues? At Leskernick, only those people running the project could wander between different trenches and think about wider landscape relationships. This hierarchy based on access to site space is common to nearly all excavations, though. At Çatalhöyük, whilst attempts were made to incorporate excavators and specialists in reciprocal feedback discussions, this was sometimes rather one-way, with specialist input seen as aiding excavators' interpretations, but less so the other way round (e.g. Berggren 2001, 20; Farid *et al*. 2000, 20–21). Despite the experimental approaches at Çatalhöyük, there were shortcomings in conventional finds-processing and storage that were not discussed in the recent volume (Hodder 2000), and some participants at Çatalhöyük retained rather hierarchical views.

The Framework Archaeology projects retained the standard on-site hierarchies of developer-funded archaeology, perhaps not surprising given the extensive scale and deadlines of the work. One of the aims was to encourage much greater individual on-site interpretation, especially of the relationships between material culture, deposition and excavated features

(Andrews *et al.* 2000; Barrett n.d.). This was to establish how people's social practices and ideas concerning artefacts and landscape were maintained and carried through in the past. Initially, though, it was often only site supervisors who recorded these relationships, although this did change as the projects developed. This was not a problem with the project design per se, but rather with the organizational structures of contract archaeology.

Reflexivity – what is it?

Ian Hodder suggests reflexivity is necessary to 'deal with plurality and interaction with diverse constituencies. In the process, reflexive (by which I mean self-critical) thought is engendered' (Hodder 1998, p. xi). Like my own writing (e.g. Chadwick 1998), Hodder thus directly equates reflexivity with self-criticism, as a necessary correlate of acknowledging a non-positivist or less objective stance within any study. Hodder has also linked reflexivity to contextuality, interactivity and multivocality. He sees reflexivity as the questioning and critical examination of the effects of assumptions and practices on all those involved in the archaeological process, including non-archaeologists (Hodder 2000, 9). However, reflexivity is more complex than this. There has been considerably more critical discussion of it within anthropology, partly because of a perceived crisis with ethnographic fieldwork, and of whether this constitutes 'objective' study or 'subjective' interpretation (Bourdieu 1990; Hastrup 1995; Marcus and Fisher 1986).

Feminist critiques of humanities and scientific research have shown the androcentric biases inherent to many studies (Haraway 1991; Hartsock 1983; Warren and Hackney 2000). Standpoint theory was an attempt to develop self-critical feminist epistemologies that recognized reality as a subjective, social construct, though many standpoint theories are now seen as essentialist and unstable (Wylie 1991a). Reflexivity has become a central issue within most science and humanities disciplines. Based on Bourdieu's work, Pels provides a more considered definition:

> Reflexive knowing is usually predicated upon a constructivist or performative view of conceptualisation that emphasises the mutually constitutive nature of accounts and reality: it is critical of an 'iconic' or 'mimetic' account which is geared towards the faithful observational recording of allegedly pre-existing facts. It hence also supports a broadened, more robust notion of experience and experimentation which emphatically includes rather than methodically disqualifies the situated particularity of the experiencing and experimenting observer. . . . it attempts to hold both represener and represented fully in view, continually monitoring their similarity and distance, their connectedness and tensionful difference (Pels 2000, 3).

Even this is unsatisfactory, as Pels admits, for there are many different forms of reflexivity, and there has been growing debate concerning this (e.g. Ashmore 1989; Bourdieu 1990; May 1998; Steier 1991). Lynch has identified up to 20 categories and sub-categories of reflexivity, though space precludes me from outlining these. Lynch disagrees with the supposition that being reflexive necessarily transforms a prior, 'unreflexive' condition (Lynch 2000).

There is a danger that reflexivity could be used to privilege a theoretical or methodological standpoint by contrasting it to an unreflexive counterpart. Pels has called these 'vicious reflexivities' (Pels 2000, 7), and has even argued for epistemological weakness, if this means that 'strong' intellectual positions defined by reflexive subjectivity are assumed to be superior to 'weak', non-reflexive arguments. Reflexivity should not be a fallback position when outlining an argument that lacks theoretical insight, or valid empirical results. Self-consciously reflexive statements may be regarded by some as pretentious or evasive, not profound and revealing. Additionally, archaeologists may only be able to be reflexively 'weak' because they are actually strong in terms of their senior positions within academic or unit hierarchies.[2] Well-established archaeologists can admit to uncertainties and ambiguities, whereas junior people may be accused of lacking theoretical or empirical rigour. Gender also plays a significant role in this. Reflexive analysis may be invested with critical and emancipatory potential, but there are many problems with how it has been applied in practice.

Within archaeology, Hodder's usage (and my own) of the word 'reflexive' therefore encompass several different, overlapping meanings. In future we must be more cautious in specifying its theoretical investments and contextual applications.

Information technology, representation and archaeology – empowering or overpowering?

> He had been taught, of course, that history, along with geography, was dead. That history in the older sense was an historical concept. History in the older sense was narrative, stories we told ourselves about where we'd come from and what it had been like, and those narratives were revised by each new generation, and indeed always had been. History was plastic, was a matter of interpretation. The digital had not so much changed that as made it too obvious to ignore. History was stored data, subject to manipulation and interpretation (Gibson 1999, 165).

I will now discuss information technology (IT), representation and the power hierarchies of archaeological projects. At Çatalhöyük, as part of attempts at realizing reflexivity, Ian Hodder and co-workers rely greatly upon digital recording techniques, and many aspects of excavation and post-excavation work are filmed. Team members can contribute to electronic site diaries describing progress or problems experienced and this forms part of the site archive and database, which requires vast amounts of computer power. It is difficult to see how these ways of working could be applied to smaller projects undertaken within a developer-funded context.

Much of the information from the excavation work at Çatalhöyük is made available on the Internet, and Hodder has claimed that in the global heritage market 'even the idea of a well-bounded "team" is increasingly difficult. What qualifies for membership of "the team"? . . . many people in the global community may wish to have direct access to the site data' (Hodder 1997, 698). There are problems with this. The Internet is not

an electronic web encompassing the globe. It is a series of linked nodal points, the majority of these concentrated in the northern hemisphere, mostly in North America and Europe. These are the more heavily industrialized countries with greater communications and technical infrastructure. Even within these nations class, age and gender are key factors in determining access to the Internet and IT (Loader 1998; Schiller 1996; Wyatt *et al.* 2000). Like all powerful communications media, the Internet is vulnerable to manipulation and control. It reproduces existing hegemonies, and is linked to globalization and the weakening of democratic constituencies and mechanisms of public involvement and accountability. To be fair, Ian Hodder and other archaeologists are aware of these problems (Edmonds and McElearney 1999; Hodder 1998; 1999), and the Internet is not necessarily doomed to replicate patterns of inequality. But website authors still hardwire in the pathways that users follow, and the idea of unfettered access is a 'hypertext myth' (Richards 2001).

Along with colleagues, I sometimes found the cameras at Çatalhöyük intrusive. Ruth Tringham suggested that on future sites cameras and microphones could continuously record people's work and discussion. However, knowing that every remark made on camera or in a diary may be read or seen by an unknown, potentially large audience is very intimidating. A huge volume of data has accumulated at Çatalhöyük, yet do the hours of filmed images and interviews add much to the site interpretation? It seems to reflect a desire to capture or record everything. This will not necessarily bring interpretation any closer, though, and will not make up for any perceived deficiencies in conventional archives.[3] We must question these ontologies of representation.

The issue of authorship is also fundamental. In traditional methodologies and publications, the privileged few running projects often use the observations and interpretations of those working for them. There is little point in individual excavators and technicians contributing to discussion and debate if project directors continue to appropriate their ideas. The most recent Çatalhöyük volume edited by Ian Hodder (2000) was a positive move, although some people's contributions were subsumed within the work of their specialist team leaders. The published Leskernick diary entries were poorly credited (Bender *et al.* 1997). With websites and electronic records it is possible that individual contributors might be ignored altogether. The almost utopian claims made by some archaeologists with regard to the potential benefits of IT need to be questioned. The development of digital recording systems and databases can only take place where excavation and post-excavation staff are empowered and recognized as being critical decision-makers (Beck 2000; Beck and Beck 2000). This will require far more than individual diaries and on-site filming, and it is clear that this revolution will not be televised.

Objectivity, subjectivity, interactivity and multivocality

Another important aspect of my discussion involves the subjective nature of much archaeological work. There has been much debate over whether archaeology is an objective science or a subjective, humanities discipline.

Archaeology should be mature enough to accept that empirical analysis and data-gathering can be allied with interpretative approaches and accounts, as part of the same integrated, hermeneutic exercise (Lampeter Archaeological Workshop 1997; Rowlands 1984; Wylie 1991b). Post-positivist critiques have similarly dismissed the idea of absolute, rigidly objective investigations of the material world (Haraway 1991; Latour 1999; Latour and Woolgar 1979), and few scientists now subscribe to such naive empiricism.

Yet perceived differences persist, partly because of a politics of archaeological practice and structures that separate fieldwork from interpretation, and 'field' and post-excavation work.[4] These relegate the creation of archaeological knowledge to the level of mechanistic production, and our engagements with archaeology remain objectified, alienated observations, rather than embodied and creative encounters (Lucas 2001a, 15–16). The perceived objective–subjective differences are frequently reiterated in many areas of human experience. In archetypal terminologies these are the differences between the Scientist and the Mystic. The former seeks to understand and explain the truth of the world, as the objective study of quantifiable phenomena. The latter is interested in the reality of the world, in terms of a phenomenological or experiential understanding. These powerful archetypes or tropes persist, yet neither Scientific nor Mystical approaches alone are satisfactory ways of engaging with the world or the past. Instead, archaeology could be considered as Alchemy, a conjuring of meaning from both empirical information and interpretative deductions. Post-processualists recognize that there may be contradictions between such approaches, but these should be seen as informative tensions rather than negative drawbacks.

Post-processual and post-modern accounts stress that human understandings of the world are partial and predicated upon age, gender, class and individual, embodied experiences (Harvey 1990; Shanks 1992). It is thus counter-intuitive to the production of self-critical and contextual archaeologies to have hierarchical working practices that exclude the ideas and embodied experiences of the diverse individuals undertaking the excavation and post-excavation work. There have been experiments with 'democratic archaeology' (Faulkner 2000), but for large developer-funded projects structured management is clearly necessary. However, British contract archaeology uses management techniques from business and civil engineering. There is mounting evidence that these are unsuitable for archaeology (Brooke 1995; Chadwick 2000a; Cumberpatch and Blinkhorn 2001; Owen and Steane 1993). We need to develop new structures that emphasize plurality and multivocality, where the contributions of individual archaeologists are an essential part of interactive and recursive working practices.

Digging places, making spaces

A crucial contribution of post-processualism concerns the physical nature of archaeological deposits, and how we engage with them. The dictum that at best 'archaeology is destruction' (Wheeler 1954, 15) has led to the idea that excavation is the exploitation of a finite resource or static record, a purely destructive, 'unrepeatable experiment' (Barker 1982, 12). Clearly, archaeological remains do exist and have a physical presence, but they are

constructs, not records, and are constituted and interpreted in the present. We create and continually re-create the past through our practical engagements with the physical traces of it (Hodder 1986; Patrik 1985; Shanks and Tilley 1987; Tilley 1989). Our identification and recording of contexts is thus also subjective, and archaeological deposits should be regarded as a sphere of action, not a fixed record (Edgeworth 1990).

This does not mean that we should abandon ourselves to relativism (Lampeter Archaeological Workshop 1997). Rather, by acknowledging that all archaeological work is interpretive, physical remains from the past can be used to support, verify or critique statements based on levels of archaeological inference (Adams 1991; 1992). Archaeological work involves active, creative and interpretative practices constituting both theory and data, and excavation is a process of transformation, rather than destruction (Biddle 1994; Frankel 1993; Lucas 2001b). These supposedly static remains are dynamic and mutable, and studies of sedimentation, micromorphology and fractal geometry confirm that our scales of enquiry are often misleading (Barham 1995; Gleick and Porter 1990; Matthews *et al*. 1997). What are single layers to the human eye may result from dozens of episodes of deposition, and interfaces and boundaries that appear well defined may be much more uncertain. Here we see the convergence of post-processual theories about reality and archaeological enquiry, and empirical scientific studies.

Without disparaging the main Çatalhöyük project, some of the most exciting work has been the small-scale, non-'official' experiments that have given spaces (literally) for people to think critically and creatively about their work. There have been innovations in graphic representation (Hawkes and Molleson 2000; Swogger 2000), and a concern to explore ways in which these spaces, or rather these places, can be experienced and recorded in ways that do not reduce them to two-dimensional drawings (Cooper and Garrow 2000). Much of this work has not arisen from the more formalized attempts at reflexivity such as the video recording and the electronic site diaries.

Other notable examples of more creative encounters with archaeology have included drawing, photographic and film experiments undertaken at Leskernick (Tilley *et al*. 2000) and by the Cambridge Archaeological Unit (Cooper *et al*. 2000) (Figure 2). Many in contract archaeology have been critically examining their physical engagement with archaeological material and the past (e.g. Challands *et al*. 1998; McFadyen 1997). At Crick in Northamptonshire, the Birmingham University Field Archaeology Unit explored ideas of how Iron Age people may have perceived their world (Woodward and Hughes 1998).

In a similar vein, the Gardom's Edge research project in Derbyshire was one of the most exciting projects I have worked on (Barnatt *et al*. 2002). The complexities of construction of many of the stone and earth features were a real challenge to understand. Thanks to the site directors, spaces were created within which cogent discussions emerged, but in a relaxed and informal manner. It was reflexive without some of the hang-ups of formal reflexivity. Whilst excavating the cairns, banks and roundhouses, many of us found that context sheets and scale drawings were often inadequate means of describing the subtleties of construction we were encountering.

Figure 2 Image from the multimedia presentation *House beautiful* (Cooper *et al*. 2000), and used with their permission.

There was also a palpable sense of connection between the people who had constructed these features and us, partly based on our physical engagement with the material. I am not suggesting that we should try to establish a quasi-mystical link back to the past. These histories will always be our histories too, excavated, recorded and interpreted by and through our own hands, eyes and minds today. Nevertheless, through our work and our regular movements around that landscape, we began to appreciate something of how the material conditions of prehistoric people might have structured their social and landscape relations. On developer-funded archaeological sites, spaces are rarely created to allow such consideration.

Productive routine but informal discussion sessions took place during the Crick, Perry Oaks and Heathrow excavations (e.g. Woodward and Hughes 1998). There should be similar meetings within field units to discuss excavation, recording and analytical techniques, ways of experimenting with them, and improvements for the future. The emphasis should always be on the flow of information upwards from those who carry out the work. But there must be major changes in how archaeological projects are planned and funded, for undertaking work too fast and with the minimum of cost is counter-productive to the creation of self-critical, reflective archaeologies. Not every project needs extra budgeted research time, but people should sometimes be given spaces (as time and physical resources) for improvisation and experimentation, particularly when new and challenging archaeology confronts them.

Project managers and curators need to be aware that greater flexibility will be required. The current pursuit of ever more hierarchical, decontextualized and reductive strategies within contract field archaeology not only stifles

creativity and enjoyment, but also dangerously limits the scope of our endeavours. If we continue to excavate and record the minimum amount of archaeology in the least time, with too little thought given to context, materiality or landscape, then we have betrayed both those carrying out the work and also the people in the past.
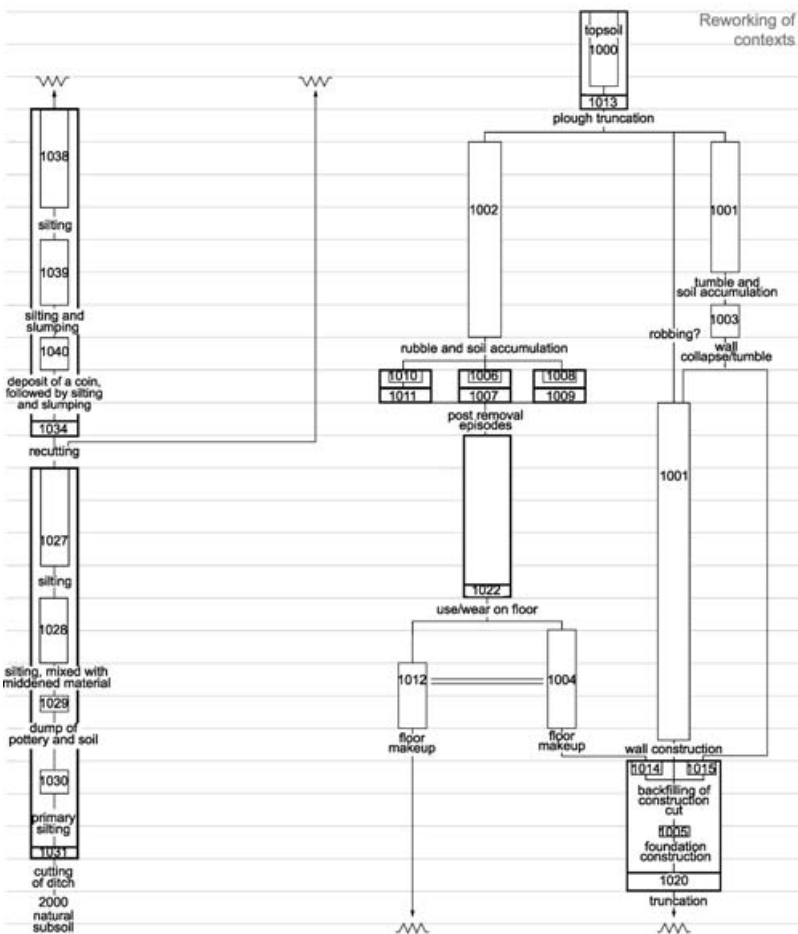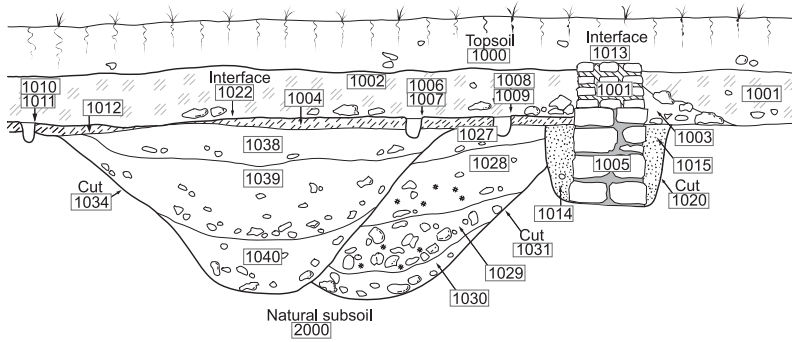
Theory in practice

> Historical interpretation must, however, work against the uniformitarian aspects of the recording system. It must pervert it by repopulating the stratigraphic process with historically and culturally specific human beings. This will work against the field methodology by rewriting the stratigraphic sequence according to different principles. These will not override the basic sequential relationships, they will move beyond them to rebuild the world as it may have been inhabited (Barrett 1995, 10).

As part of these much wider changes in how we undertake fieldwork, we should be rethinking site-recording systems, and must develop recording and excavation methodologies that critically engage with all practices of representation on-site. Reflexive recording must therefore take place through the medium of the primary site records – context sheets and matrices. Hand-held computers and digital records may eventually replace these, but there are still problems with the long-term storage of information (Aldenderfer 1999). Records must be structured pro-forma entries rather than free text, to facilitate cross-checking and post-excavation analysis, but we need to strike an appropriate and dynamic balance between control and free expression. Both Leskernick and Çatalhöyük employed conventional recording sheets, and I believe that this was a missed opportunity. Others have made more progress.

Max Adams and the Archaeology Service of the University of Durham (ASUD) developed a sheet with icons concerned with formation processes and the personal processes of excavation (Adams 2000; Adams and Brooke 1995). Framework Archaeology introduced group sheets where wider landscape associations and distributions of features, depositional practices and past patterns of human movement and everyday existence could all be discussed (Andrews et al. 2000). However, there should be a constant dialectic between the subjective and the objective, between recording and interpretation, between the archaeologists and the material that they are working on, and between excavators and project leaders. If archaeological deposits are active entities rather than a 'static record', and excavation is a creative encounter, we must devise ways of working on-site in which we can explore these dynamics.

In order to illustrate the duration or longevity of contexts, Carver (1990) and Dalland (1984) both made limited and rather unsuccessful attempts to show the individual 'history' of each stratigraphic unit. Harris himself recognized that this is a problem (Brown and Harris 1991, 17–19), and conventional land-use diagrams have been a means of trying to illustrate this. Nevertheless, the temporalities of certain events such as the digging of cut features are still reduced to individual, objectified moments in time.

CONTEXT NUMBER, CO-ORDINATES, NAME	TICK BOXES TO ASSIST FREE TEXT
RECORDED PHYSICAL ATTRIBUTES	PROMPTED FREE TEXT DESCRIPTION OF IDENTIFICATION
	FORMATION PROCESSES / PRACTICES FORMATION PROCESSES / PRACTICES
PROMPTED RECORDED DESCRIPTION, FINDS AND SAMPLE NUMBERS	PROMPTED FREE TEXT DESCRIPTION OF THE PROCESS AND HISTORY OF THIS CONTEXT'S EXCAVATION
SUPERVISOR'S CHECK BOX, DATA INPUT CHECK BOX	TICK BOXES TO ASSIST FREE TEXT

Figure 3 One possible thematic layout of a more interpretative and self-critical context sheet.

Figure 4 A more 'fleshed out' version of one such possible interpretative sheet.

Lucas recently produced a development of this idea that can be generated by a relative calibrated measure rather than reliance on full stratigraphic and absolute dating evidence (Lucas 2001a, 160–65). These ideas could be taken further, to display the reworking caused by geochemical changes, plant and animal disturbance and human activities. By treating the matrix as an

Figure 5 A hypothetical site section (5a), and (5b) its 'hermeneutic matrix', derived from ideas by Carver, Dalland and Lucas, illustrating the temporality of each individual cut, fill or deposit, processes and/or practices, and the active reworking of certain contexts. As suggested by Lucas (2001a, 162, 165), the horizontal zones are a relative evaluation of longevity, derived from the total number of steps on the matrix. They are not based on information from ^{14}C or material culture dates. However, such information could be incorporated at a post-excavation stage.

interpretative tool or hermeneutic device, more 'active' features and deposits can be shown to have a lower inference potential than less active contexts. Harris favoured stratigraphic matrices being developed to display additional information, and some projects already do this (Davies 1993; Harris 1989, 149). On-site recording must take into account all traces of past human activities encountered during excavation, not just layers, fills and cuts. In some cases, this might include noting activities for which little physical evidence survives, but for which there is a strong inference potential.

Figures 3 and 4 illustrate steps towards simple context sheets that record both process and practice. I am not suggesting specific formats, and the more standardized and homogenized we make our records, the more features will inevitably come to resemble one another (Lucas 2001b, 44). The emphasis should be on how excavation transforms physical deposits into interpreted archaeological features. Alternative views, statements of confidence and interpretative and self-critical information are thus imbedded within the recording process, not located elsewhere in diaries or film sequences. Such a self-consciously dialectic approach allows more room for complexity and ambiguity.

Figure 5 is a 'hermeneutic matrix' of a fictional site sequence. The context number boxes are 'stretched' on a vertical calibrated scale as suggested by Lucas (2001a), to show the approximate time that these contexts were 'active', forming or in use. Cuts and surfaces are no longer objectified moments in time, and reworked contexts are noted. The creation of such matrixes becomes a more dynamic, self-critical interpretative process. By devolving so much interpretation back to the excavators, such context sheets may serve to undermine hierarchical project structures. Training would have to have a much higher priority, and would need to be combined with regular discussion sessions involving excavators, and specialists in artefact and ecofact analysis, as Perry Oaks and Heathrow, Crick and Çatalhöyük have shown.[5]

Conclusions
The projects I have mentioned are all welcome stages in the development of self-critical methodologies, especially Crick and Perry Oaks, carried out within a developer-funded context. In Malmö, Swedish contract archaeologists have been questioning feature categories, considering the contextual nature of artefacts and deposition, and scrutinizing processes of excavation and interpretation (Berggren 2000; 2001). But this is within a more enlightened framework with no competitive tendering. Any moves towards more dynamic and interpretative methodologies must inevitably seek to deconstruct many of the traditional hierarchies encountered on fieldwork projects, and involve considerable changes in how projects are staffed and managed (Brooke 1995). Excavators must be treated as well-educated and/or experienced and multi-skilled specialists, and they must be paid and led accordingly well. Artefact and ecofact analysts must be closely integrated into the planning and implementation of projects. All staff should be involved in practical workshops on material culture, and instead of individual material classes being sent out to different specialists, everyone should be brought together to examine the entire finds and environmental assemblages, in

recursive and productive discussions involving field staff too. The differences between excavation and post-excavation need to be eroded, and a more useful distinction for the future might be on-site and off-site work.

More reflective ways of working and the merging of theory and practice could be part of a much wider transformation within archaeology (Chadwick 2000a; 2000b; forthcoming). In particular, the current indifferent responses of many archaeologists to globalization, class exploitation and neo-liberal capitalism must be questioned. There is continued tension between sponsorship and developer funding, and dealing with capitalist, often multi-national businesses (Hamilakis 1999; Kitchen and Ronayne 2001). Many firms have poor records on the environment, arms sales, human rights and fair trade, and competitive tendering and direct developer funding exacerbate their negative impact upon archaeology.

Some archaeologists may consider this unproblematic. I believe though that we need to develop ethical, less exploitative and more radical practices, for if archaeology is to have any relevance within the postmodern world resisting such pressures should be a priority. Rather than slavishly basing management on neo-liberal capitalist institutions and increasingly alienating industrial practices, archaeology is in a strong position to develop innovative and flexible ways of working. Unit structures should emphasize networks and heterarchies rather than hierarchies, and experimentation must be encouraged. There must be greater outreach and involvement with local communities. By undermining hierarchical approaches to archaeological practice, we can contribute to wider debates about politics and society as a whole.

> . . . critical archaeological work will not succeed in public intervention as long as it perpetuates the institutionalisation of divisions of labour which reify professional and disciplinary boundaries (Ronayne 2001, 162).

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Notes

[1] PPG 16 refers to *Planning policy guidance. Archaeology and planning* (DoE 1990), published in England, but with similar guidance notes following in Wales and Scotland. These officially brought archaeology in Britain within the planning process for the first time, with the main onus on preservation *in situ*. There have been several notable failures in implementation, though, and there are moves to bring in a more comprehensive, statutory act.

[2] I am grateful to Helen Wickstead for this pertinent point.

[3] I am also grateful to Gavin Lucas for our discussions of this subject.

[4] Chris Cumberpatch contributed this cogent observation.

[5] This cannot take the place of full post-excavation analysis, though, when materials specialists examine whole assemblages and groups of artefacts. Rapid feedback on-site is often highly productive, but time for reflection is also needed (C. Cumberpatch, personal communication).

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