# Time and the Archaeological Event

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This paper re-examines the concept of the archaeological event as a means to avoid dual or multiple levels for historical phenomena, which a scalar view of time creates. Central to this procedure is an examination of the nature of residuality in relation to the archaeological record; it is argued that our concept of residuality needs to be broadened to encompass a more general view of material organization where the property of reversibility is foregrounded. In doing so, a different conception of the event is generated which defines itself not in terms of particularity but reversibility.

## A critique of the scalar view of time

The concept of time scale occupies a prominent place in understanding and explaining change in the archaeological record, whether explicitly or implicitly (e.g. Lock & Molyneaux 2006). As Ramenofsky & Steffen remind us, the idea of scale incorporates two facets — inclusiveness and resolution, that is (in the case of time), the scale over which events occurred and the scale at which they are identifiable (Ramenofsky & Steffen 1998, 4). We could argue about whether archaeology, because of its unique access to long time spans of human history, is obliged to refer to large-scale processes, or even that the resolution of the archaeological record obliges us to do this (Bailey 1981; 2007; Murray 1999). One could even take a common middle ground and argue for multiple scales according to the scale of the data. But we have to be careful to distinguish scale as a mode of analysis from scale as a property of the historical phenomena under investigation.

On the whole, the notion of scale, as it applies to the mode of analysis, is fairly uncontroversial. We can take larger or smaller blocks of time to examine, and we do have to deal with the question of resolution — How small can we go? However, where I find the concept of scale problematic is when it is applied to historical phenomena as an intrinsic feature, as it is for example, in *Annales* inspired approaches or those drawing on non-linear dynamics. We need to stop and reconsider whether the concept of scale is appropriate in these instances; indeed, our suspicions should be aroused when spatial metaphors such as scale and structure are used to define the nature of historical explanation. What is being implied or assumed about historical phenomena when the concept of scale is used in this way?

One way to answer this question is to ask about the kind of theoretical time-related entities archaeologists deploy in their discussions. These entities tend to be fairly general and by no means exclusive to archaeology; common examples include process, structure, practice, sequence and event. Although there is undoubted variety in theoretical positions, one common assumption constituted through a scalar view of time seems to be that such entities stand in a scalar relationship to each other: at the smallest scale there are events and practices, at the largest, structures, while the concepts of process and sequence can apply equally to both. But in doing this, historical entities are being posited which effectively exist on different ontological planes such that it becomes a problem of how to relate one plane to another — How do events relate to structures, small-scale processes to large-scale processes? One way to avoid this problem altogether is not to apply the scalar model in the first place, but rather to keep everything on the same temporal plane; to 'flatten' time.[1]

There are plenty of examples of such flattened temporalities in related disciplines, for example time geography or path dependence analysis (Hägerstrand 1970; Pred 1977; Griffin 1993; Sewell 1996; Mahoney 2000; Miller 2005) but their potential has not really been explored by archaeologists — partly, perhaps, because they deal with very different phenomena.[2] Stratigraphic sequences are the closest parallel in archaeology, but these are usually presented as formal sequences, devoid of narrative content. However, one can turn to a paper by Binford on directionality in archaeological sequences for an exceptional example (Binford 1972b). In his discussion, Binford attempts to explain directional trends on a site without recourse to any abstractions (i.e. evolution of socio-cultural systems) but rather as a by-product of more concrete processes. One of his examples is how the accretional infilling of a rock shelter affects the amount of living space and thus the group using it; Binford suggests this change could affect group structure or even lead to the construction of housing as shelters (Binford 1972b, 324–5).

Adopting the concept of 'flattened' time, means we do not create different ontological planes on which historical phenomena exist (e.g. long-term

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structures, small-scale events), and in doing so, it enables us to maintain more plausible and visible links between phenomena which are usually elided when any abstraction takes place. This is very clear in Binford's example. To achieve this flattening requires using a temporal concept that keeps us grounded in the concreteness of the data we deal with; in socio-historical disciplines this is surely the event. Indeed the archaeological record is not composed of the residues of structures, practices or processes but the residues of events (e.g. Shennan 1993); to what resolution we can read these events is another matter, but this does not necessarily invalidate using the event as a starting point. The question initially, is not whether we can distinguish events in the archaeological record, but rather what kind of events are we dealing with. I will argue that we cannot simply adopt a concept of event borrowed from everyday experience or from history or sociology, but rather need to consider the particular nature of archaeological events. For the rest of this paper, I want to critically examine the concept of event; to make it work archaeologically it needs substantial deconstruction.

## Events in archaeological discourse

It is actually difficult to find any detailed or sustained discussion on the nature of archaeological events in the literature, except in relation to another, more dominant concept (see Brooks 1982 for a rare exception; and most recently, Beck *et al*. 2007). Try finding the word in the indices of archaeological theory books and one will be disappointed. The consequence is that the concept of event has become severely diminished and more often than not, stands almost as an empty term. Vernacular usage of the word 'event' in the archaeological literature tends to be extremely varied in its scope; the agricultural revolution, the Maya collapse, or a specific burial might all be called events, though they clearly unfold over different durations and pertain to quite different interpretive contexts. However, perhaps precisely because of this semantic poverty, it becomes easier to redefine the concept.

Where the term 'event' does appear in archaeological discourse is alongside at least two other concepts which form key parts of the scalar models of archaeological time: process and structure.

### *Process and event*

One of the hallmarks of the New Archaeology was its concern to find general processes operating in prehistory, in contrast to the more particularistic approach of traditional history and its reconstruction of singular events. Indeed, such a theme was ultimately to define the emergence of processual archaeology in distinction to culture-historical archaeology. Perhaps the classic statement of this distinction is by Binford in a 1968 paper entitled 'Some Comments on Historical versus Processual Archaeology' which challenges the Sabloff-Willey paradigm of historical-developmental interpretation (Binford 1972a).

At the root of this disagreement is Binford's critique of the notion that historical events somehow constitute basic facts, which can be reconstructed independent of processual interpretation. Binford argues that any sequence of historical events presupposes causal relations and therefore processual explanations. Historical events are therefore not independent of historical processes but in fact, subordinate to them (Binford 1972a, 117). In short, the particularity of events becomes connected to an epistemology of naïve empiricism or inductivism, where event is to process, as fact is to theory. Although Binford is not replacing events with process, he is subordinating them and effectively stripping the event of any significant explanatory power. This is the first stage in the diminution of the concept. The second occurs under post-processualism.

### *Structure and event*

In reaction to cross-cultural generalization, post-processualism tried to bring back some of the historical particularism which processual archaeology ignored. However, it achieved this not by returning to the traditional historical notion of the singular event, but rather by emphasizing the role of human action and agency theories (Dobres & Robb 2000). Agency has thus come to supplant any positive role the concept of event might have in this arena. Nonetheless, a key element of the post-processual reaction was a revival of interest in archaeology as history, part of which was simply a continuation of the closer relation that existed between archaeology and history in European archaeology (Hodder 1987). Yet this was not a return to traditional history but one influenced by changes in historical theory since the 1930s, most particularly the French *Annales* school (Last 1995). Part of this shift in historical theory was not dissimilar to the arguments about process and event just outlined; the *Annales* historians were trying to get away from traditional descriptive or event-based history toward understanding more general social and historical processes. However, in doing so the notion of event became reconstituted as short-term history rather than something opposed to this 'new history'.

In Hodder's seminal discussion of the relevance of *Annales* history to archaeology, there is a sense that events could retain some interpretive potential; he



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refers to Braudel's definition of an important event as one which has consequences, and also of chains of events in order to identify the relationship between these events and medium and long-term history (Hodder 1987, 6). Yet because of a scalar model of time, this relationship is quickly collapsed into an opposition between structure and event. Indeed, in general the concept of event was always ambiguous within *Annales* history with regard to the medium and long-term scales, and Braudel even suggested banishing the word 'event' because of its former connotations, replacing it with short-term history (Braudel 1980, 27). In archaeology, the event as short-term history has come to be more or less synonymous with archaeological 'ethnographies' — narratives of everyday practices, which recur over the short-term (Harding 2005). As such, the meaning of the word 'event' in much contemporary archaeology is unfortunate if not downright misleading. 'Event' is now frequently short-hand for small-scale structures as opposed to medium- and long-term structures; if against the concept of process, it was stripped of any explanatory power, against structure it becomes completely assimilated into the scalar model of time as a generalized concept and has lost almost all sense of particularity (see Brooks 1982 for a very explicit affirmation of this point).

*Palimpsests and events*

One of the problems inherited from these positions — perhaps the key problem — is the relationship between two ontologies, which inhabit two temporal planes: the event as a particular occurrence on the one hand and structure as an enduring set of practices or beliefs on the other. The particular problem I want to highlight concerns the articulation of these temporal planes; How do a structure and event relate, temporally? The usual response would no doubt be that structures are made of practices or routines, which in turn are made up of individual events; in other words, structures are simply recurring events, and thus they can be larger or smaller scale depending on the extent of recurrence. This is the classic scalar model and indeed appears to be a useful way of putting it, so long as we remember that time scale is simply shorthand for the duration of recurrence. But there is a problem: what about unique events? How do they relate to recurrent events, indeed how does one define a unique as distinct from recurrent event? This takes us back to the two notions of event I discussed above — the processual event (or rather the traditional historical event) as a particular occurrence, and the post-processual event as recurring occurrences of relatively short duration.

In a recent paper, Beck *et al.* (2007) bravely attempt to deal with this relationship after a certain manner. Drawing on the work of the historian William Sewell,[3] they suggest that an event is a sequence of particular occurrences that transform a structure through reconfiguring the material resources and mental schemata that constitute such structures (Beck *et al.* 2007). Through four case studies, they present the potential of an eventful analysis for archaeology and although the event (as a sequence of occurrences) can clearly occur over long time spans, they are generally of short duration compared to structures. In some ways, such an approach combines the concept of structure as conventionally used with a more traditional notion of event. Although important points are raised in this paper, it suffers from the common shortcoming of easy abstraction; that is, although they define the event as a cascade of particular occurrences, the details of this cascade are elided and the concept of event becomes an all too easy shorthand term. In effect, all the problems of linking event and structure remain, but are now reproduced through the opposition of occurrence and event. In focusing on the cascade of occurrences as a whole (the 'event') in relation to structure, the authors actually cut out the most important insights of path dependency, namely historical sequence.[4]

The problem here, and indeed with all conceptions of the archaeological event, is that when it comes down to it, an event defined from a historical or sociological perspective does not really work well with archaeological phenomena. Abstractions such as structure or practice can be made to fit with archaeological data because they are so generalized, but the concept of event is, by definition, highly particular. Yet if we want to understand the archaeological record historically, in terms of continuity and change, we need some kind of equivalent to the event. The problem is that we tend to see archaeological events in terms of our everyday or conventional understanding of the event, and thus any archaeological event is almost always an aggregation by this measure. The reason why archaeological data do not work with the historical or sociological concept of the event is simply due to the impassable barrier of the palimpsest nature of the archaeological record.

One of the more difficult issues about interpreting the archaeological record in terms of past events as we conventionally understand them is the aggregate nature of the record: no matter how refined our methodology, no matter how much we try to dissect the archaeological record into constitutive elements, it will always remain a palimpsest of residues of such events (Bailey 2007). Even taking an apparently easy example of a



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'single event' in the archaeological record such as the cutting of a grave pit or back-filling it, this can be broken down into a sequence of multiple events of shovelling, which are unlikely to be discernible. Whether we treat these multiple shovelling actions as a single event or not depends on how we view them in the aggregate: for example, if it was important to the person digging the grave to start digging from a particular end, then the *progression* or order of digging is meaningful, and therefore to treat the grave cut as a single event ignores this.[5] If you think this is far-fetched, then think about what constitutes an event the next time you go on to a site to excavate. In short, the archaeological record comprises palimpsests of higher or lower resolution in relation to an event, as conventionally understood. Moreover, even when we have high-resolution palimpsests, we still frequently aggregate them ourselves into larger temporal blocks or phases in order to make them comparable — simply because the resolution of palimpsests can vary so much.

The problem appears intractable and indeed is, so long as we think of events in the conventional manner, as particular occurrences. But I would suggest we are looking at this the wrong way around: we need to question whether this conventional understanding of an event is the right one to use in archaeology. The fact is, all the examples discussed previously do not deal with archaeological events, but historical or sociological events inferred through archaeological data. One could argue there is no difference, but I would suggest there is. In short, rather than thinking about how objects can be interpreted in terms of the event, we ought to be thinking about how an event could be interpreted in terms of objects. That is, we need to redefine the concept of event from a material point of view.

*Residuality and the archaeological event*

It is a truism to say that archaeologists do not dig up events but rather objects considered as the residues of events. This much is indisputable. However, we tend to make the leap from object to event without considering the ontological implications of residuality; closer attention to residuality provides the key to a proper understanding of the archaeological event. Generally, residuality is considered as a methodological problem dealt with under-theories of formation processes, i.e. as something that marks the process of transformation from the systemic or dynamic context into the archaeological or static context (Schiffer 1987). As such, archaeologists are of course trained to consider such processes when inferring events from objects; but the notion of residuality contained here is very narrow. Consider the residues of an everyday event such as dinner: the pile of washing-up by the sink and food scraps. Of these residues, the food scraps are fed to the dog or thrown in the bin to be transported to landfills, while the dirty crockery and cutlery are washed and put away to be used the next day. In short, the residues of one event become the objects of subsequent events (washing up and the dog's dinner), and more often than not, no trace is left of the former event.

Now there is no doubt that archaeologists have become very good at trying to uncover a whole range of events based on what traces do survive but the fact is, this never amounts to a reconstruction of events as we might observe and describe based on our experience, simply because the vast majority of events leave no material residue. This is not to say that objects from such events do not survive (e.g. broken crockery or food scraps in the landfill), but these objects are usually implicated in hundreds if not thousands of events prior to their deposition and to pretend we can obtain a full sequence is naïve in the extreme. We must not conflate surviving elements of an event with the material residuality of an event itself. In the one case, we are talking simply about things; in the other, organization of things. This is what I meant by suggesting that the concept of residuality was too narrow; we tend to equate it with survival of things rather than the survival of material organization. If we think about the archaeological record in terms of the residue of events, we must consider events as material assemblages of people and objects that persist for shorter or greater duration.[6] It is the residue of this organization that is being sought, not simply the elements or objects which were part of it. In this sense, our concepts of context or assemblage come much closer than individual objects to characterizing the material residue of an event.[7] The assemblage, not individual objects, is therefore what constitutes the residue of past events, if by assemblage we understand a set of material relations or organization evident in the archaeological record.

Now compare two cases of material organization. The first is a book collection. How does one characterize this assemblage in relation to residuality as defined above? One can re-arrange the order of books on the shelf tomorrow and there will be no trace of the former order at all. If I take away some books that I am tired of, the same effect accrues. In short, subsequent events have completely erased antecedent ones and *it is as if they never existed*. This is an anti-historical process in the sense that it creates no history in the collection itself; materially speaking, such projects have the effect of reversing time, and they are extremely common. Materially speaking, reversibility is not only possible



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but ubiquitous in social phenomena — one only has to think about the material organization implicated in everyday activities one is involved in, to find more examples. Elements may survive (e.g. books, shelves), but the particular organization does not.

Other assemblages however offer a contrast. As the second example, consider a traffic system, especially as regards which side of the road one drives on. To change this — for example to make the cars drive on the right-hand side in Britain as almost everywhere else in Europe — would be an enormous task; the complexity of the material connections accumulated over time have created such massive inertia in this respect that to reverse it or to re-organize it would involve major disruption. But it is still possible. This is not just about changing the attitude of the driver — indeed this is perhaps one of the easier elements to change — but the material infrastructure (cars, signage, roads). In short, there is an inherently greater irreversibility built into a traffic system than a book collection, but both are potentially reversible.

The importance of characterizing assemblages through this quality of reversibility/irreversibility is to highlight the critical factor in those events that leave residues in the archaeological record. Unlike historical or sociological events, to which this point is of no significance, archaeological events are quite emphatically tied to the degree of reversibility in material organization, which in turn directly effects residuality. Thus on the one hand, change occurs much more readily in assemblages with greater reversibility (e.g. the book collection); on the other, such changes also leave less material residues. Conversely, the assemblages, which have greater irreversibility and change with difficulty (e.g. the traffic system), tend to leave much more material traces. This property is largely related to the extent an element or object within an assemblage is constructed specifically to fit that assemblage. Books can be re-ordered in multiple ways and their materiality is not intrinsically tied to any particular system; a car on the other hand is built to operate quite specifically with left- or right-hand side traffic systems and becomes defunct once the assemblage is changed. Either it is taken apart and re-assembled or it is simply discarded — and which of these fates it has, is also a question of reversibility since a car, although an object from the perspective of a traffic system, is also an assemblage from the perspective of a mechanic.

It can be suggested that the archaeological record is largely composed of the residues of objects from assemblages with low reversibility. In a sense, the more reversible an assemblage is, the less visible it will be archaeologically (independent of other issues to do with the entropy, such as the preservation of objects). Now events as we traditionally conceive them (as in history or sociology) doubtless happened throughout the past and change was constant; but the kind of change and events that archaeologists see, are of a very particular type: changes in material organizations with high irreversibility. This may seem restrictive, especially if we want to write archaeological narratives that mimic history or ethnography; but it seems to me that it is in fact rather liberating. For it is such changes that are also perhaps the most important over the long term and certainly at the level of temporal resolution we can normally expect to attain in archaeology. In short, the archaeological record is self-filtering and rather than see its lack of resolution or fragmentary nature as a shortcoming, it is precisely these qualities which point to a different type of event and narrative of the past.

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## Notes

1. This metaphor is borrowed from Latour in his discussion of the application of actor network theory to the social sciences (Latour 2007).
2. In a recent paper, Beck *et al*. 2007 draw on Sewell's work but elide the very seriality of events which is the critical part of path dependence analysis; their paper is discussed further below.
3. Sewell's approach is broadly affiliated with the more general theory of path dependence analysis as mentioned above, but he is also heavily influenced by Giddens structuration theory and thus maintains the concept of structure.
4. In a useful paper summarizing path dependence analysis, Mahoney (2000) discusses two types of sequence: reinforcing and reactive which help elucidate the difference between structure (as recurrent event) and event (as a unique series of events).
5. All this hair-splitting is moreover precisely what is at stake in many philosophical discussions of the event,



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which attempt to find an identity condition, that is, a criterion under which two events are the same (or different). The philosophical literature on the nature of events is extensive and covers a variety of issues and positions. I do not want to even begin to summarize this but see Casati & Varzi 1996 for a useful collection of key papers within Anglo-American philosophy.

6. This has obvious affinities with Latour's concept of the 'collective' (Latour 2004) or Gell's 'distributed object' (Gell 1998).
7. Though of course all objects can also be seen as the residue of an event in this sense — the residue of the production event in which they were made. Seeing an object as an assemblage of elements is another way of seeing it in terms of a past event. In fact there is a strand in philosophy which questions the ontological distinction between events and objects; the post-Kantian tradition stemming from Hegel led to a number of philosophers elevating the ontological status of the event, blurring its distinction to the object, notably Whitehead, Bergson and Deleuze. Most recently, Badiou has defined the event as a rupture within being such that, by definition, it escapes the ontological sphere altogether (Badiou 2005). Of particular relevance here however, is the philosopher Quine's arguments, who suggested that the difference between objects and events was solely a question of speed (relative to the observer); events change quickly whereas objects change slowly, almost imperceptibly (Quine 1970). In this way, the change in ontological status is not a difference in kind but only of degree. The implications of this for archaeology are interesting: since the archaeologist's perspective of time and events is different to the people in the past we study, such events will always appear object-like to us — the archaeological record is thus time slowed down. This actually has some merit but space does not permit me to go into this further in this paper.

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