

ABSTRACT AND SUBSTANTIAL TIME

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It is often claimed that one of the strengths of archaeology as a disciplinary practice resides in its unique time depth. Indeed time is essential to archaeology: it constitutes part of the reason for its existence. One might expect that a discipline so deeply implicated in and concerned with time to have a highly developed theoretical understanding of the nature of temporality and its relation to social totalities. Unfortunately, as in so many other areas, this is not the case.¹ In this paper we intend to problematise the nature of time and, in so doing, hope to dispel some of the 'innocence' involved in the treatment of temporality in contemporary archaeology.

Abstract Time

Time in archaeology has been regarded as largely unproblematic, something into which artifacts and sites may be slotted. It is simply considered and presented in terms of sequence and date, a dimension. To identify time as a dimension is to utilise a spatial metaphor. Time becomes location and distance, a framework in which the traces of the past are locked up and may be situated and ordered.

Spatial, linear or abstract time is an invention of recent date and can be related to the development of capitalism. Such time is commodified and constitutes the time of capitalist production. The time of the chronometer is a time constituted by an infinity of durationless moments. It has an exchangeable quality. As measurable, empty duration this time is utterly separate from the human life that fills it, freely exchangeable with all other time. The time of the factory clock permits the exchange of labour and its product. Commodified time provides the medium and link between the commodified form of goods and commodified labour in the capitalist production process. This 'objective' time operates within an exploitative economic system of social domination and is bound up with the surveillance of the worker and social control. It is utterly separated from the individual and marginalises subjective experience. Such a commodified time implies the abolition of that time created by the event of human consciousness or human practice -- the flow of actions in and on the world in individualised or substantial time.

The commodified time of capitalist production provides archaeology's temporality. Thus a particular and historically specific notion of time is accepted as a simple 'commonsense' notion of temporality: something to be applied to document, to arrange the traces of the past. Acceptance of this notion of time as obvious and unproblematic safeguards the discursive space of archaeology. Capitalism's

chronometry is regarded not as culturally specific but as automatically applicable to the entirety of humanity, past or present. Capitalism's time becomes temporally imperialist.

This abstract time forms the premise of traditional typological work in archaeology, involving the assumption that the temporal classification of an artifact somehow provides a clue to its meaning -- that such empty time explains. This time also permits and encourages the production of an homogenous history, a history that claims to be both about and relevant to the entirety of humanity, an history that does not recognise rupture and difference. It provides justification for the 'equal' treatment of human culture at all times and places: cross-cultural generalisation and the comparative method. Such time allows the construction of general classificatory stages, the compression of societies into evolutionary sequences. A qualitative view of substantial human time which would recognise difference is replaced by quantitative, classificatory time. Thus, all 'tribes' are considered as equal in a hierarchy in relation to 'chiefdoms', 'bands' or 'states'. Spatial or abstract time lends justification to the idea of necessity in the historical process, that things could not be otherwise, they had to happen this way. Ultimately, it provides a justification for capitalism.

We need to inquire into the meaning of such temporality -- the time of measurement and calculation. Is such a conception of time itself atemporal? We argue that temporality is itself historical, that any definition of history is itself historical, and reject any chronology which would claim universality.

History since the French Revolution has changed its role. Once it was the guardian of the past: now it has become the midwife of the future. It no longer speaks of the changeless but, rather, of the laws of change which spare nothing...Social life which once offered an example of relative permanence is now the guarantor of impermanence (Berger 1984, 12).

Change is transformation, metamorphosis of the object. It belongs to the object. But chronology is an index, a law applying to all events, a single all powerful force. Change under the law of chronology becomes an aspect of time itself. Time as chronology is abstract and inhuman, the law or principle which applies to everything. No longer a condition of social existence and life, time becomes sentence and punishment. The archaeologist becomes the executor of the law and people become the dehumanised objects of a spatialised history.

Contemporary chronology flows; the past is lost in the distance, in the unceasing flow, exotic, mysterious and a problem. The past is no longer organically related to the present. The present instead represents ephemerality. It is itself lost in the flow. Such a notion of time clearly corresponds to the impermanence and obsolescence of consumerism, but also refers to the possibility of social change in the

non-Western world, the promise of social revolution. So, contemporary historical existence, historicity, is both violence and possibility -- violence to life (either overtly or in a symbolic form) and containing the possibility of revolution and change (Berger 1984).

Capitalism's chronometry is the calculus for organising and programming labour. It is a time which allows the calculation and comparison of incommensurate labours. It is an ideology of production. Chronometric time is money and chronometry is the time of the factory clock. Private life and public life become separated as leisure-time and work-time. Lived time is marginalised, times other than chronometry destroyed, condemned as subjective, irrational or as superstition.

To say this is not to long for an age before capitalism's colonisation of time. Contemporary historicity is the emergence of a sense of possibility, a possibility enabling a prospect of social justice, that the present may be changed because it is not under the guardianship of a mythical past. What is required is the unravelling of the identification of chronology with the reality of time. Nature and history do not stand opposed to each other but exist in a mediatory relation: what appears as natural is a historical production and the identification of history with what happened -- objective occurrence -- is dissolved in terms of the concrete existence of the past. Consequently, the time of the past is not to be assimilated into the time of the archaeologist but should be realised as discontinuous, something more than its representation by the archaeologist.

Substantial Time And Social Praxis

Time is to be grasped in relation to particular processes. Therefore it is substantial, neither a dimension nor a context. The notion of context is to be subverted. Context is not an external framework; there is no stable 'event' and its 'context'. Temporal interval does not consist of emptiness. Time exists in the relation between presence and absence, both physical and temporal. Intervals are a part of presences, defining, marking edges, structuring difference. There is always a chronic reciprocity between past, present and future. So the archaeological past always exists as a future project in the present, in the social practice of archaeology. No time then exists in-itself as abstract date or whatever. Time is not an abstract existence, contentless form. A notion of substantial time means that we must replace the usual archaeological notion of a fundamental gap between past and present ('bridged' by so-called middle range theory) with an entirely different notion in which past and present are held together in the event of presencing. Presencing understands the present itself as historic, rather than the termination point of history. It is a "mutual reaching out and opening up of future, past and present" (Heidegger 1972, 14), holding them together in their difference, in a relational nexus. Such a temporality stresses the productive role of the archaeologist now in creating a past in a present. There are always gaps in the past. These gaps are not just a feature of the amount of evidence that survives now but are always-already there. The past is not some-

thing 'perfect' or over and done with, opposed to an ongoing uncompleted 'imperfect' present. The past requires completion by the interpreting archaeologist (see Shanks and Tilley 1987, Chapter 1). The time of the past belongs to the past but the meaning of the past resides in the present.

Time is a condition of social practice in which social actors draw on structures which enable action, the action in turn reproducing the structures. So every social act implicates different temporalities: the occasion or event of the action; the life history of the social actor; and the institutional time of structure. This is the social logic of 'scale'. Time, then, is the event of praxis, the praxis of past social actors and the praxis of the archaeologist today.

In arguing against an 'Hegelian' totalised and abstract time, Althusser proposes multiple temporalities within a social formation -- times specific to the separate instances: economic, political, legal and ideological (Althusser and Balibar 1970, Chapter 4). There is thus no single unifying time, no single 'now'. The only unity to different temporalities is their location within a structured social formation. While not supporting Althusser's characterisation of 'social formation', we agree that time is unavoidably implicated in social logic.

Consequently chronology does not explain anything, nor does it provide a context. Instead chronology is part of that which is to be understood. Time may not involve chronology, as we shall illustrate below. Synchronicity does not necessarily mean at the same date; at the same date does not mean that two events were necessarily synchronous. Dates act as taxa, uniting 'events' according to an abstract calculus. We argue instead that any form of synchrony and diachrony arises out of and must be related to the social structures of which it is a part. This means that we must replace the abstract landscape of quantitative and spatial time with substantial time, an eventful landscape of continuity and discontinuity: structured difference. Instead of length of time we should refer to the density of relations of practice.

A History Of Times

The essential point to be made is that different temporal orientations shape history itself. "The moment is a moment" comments Bourdieu reporting an Algerian peasant (1963, 59). Time for the Algerian peasant is not measured but marked. There are not spatial points of division, segments of regular succession, but self-enclosed, discontinuous units. Points of reference are supplied by experience of the agricultural cycle: a ritual calendar. The peasant temporality of tradition is not coincident with chronology (Table 1).

The measured time of abstract chronology, to be managed, calculated, saved and expended, is distinct from the peasant's substantial time, a mythology in action, a submission to the passage of time, with no one dreaming of 'saving time' or 'spending time'. The future in

SUBSTANTIAL OR HUMAN TIME	--	ABSTRACT OR CHRONOLOGICAL TIME
marked time		measured time
submission to the passage of time		managed time
self-enclosed recurrent moments		repetitive segments of regular succession
the <u>forthcoming</u> exalted by tradition		the <u>future</u> : an open void
imitation of the past; conformity with an ancestral model		design of a projected future
concrete horizons of the present; single context of meaning		mutually exclusive possibility
reading signs to which tradition provides the key		'rational' calculation
deferred consumption (hoarding)		abstract accumulation
gift		credit
social imperative		'rational' choice

Table 1. Substantial and Abstract Time.

abstract time is a void of mutually exclusive possibilities. The time of the peasant is a time to be forecasted, a forthcoming within a single context of meaning. Additionally, the concrete horizon of the present is exalted by tradition, an imitation of the past in conformity with an ancestral model. To presume to calculate the future is hubris. Abstract time's rational calculation of future possibility opposes substantial time's prophetic reading of signs for which tradition furnishes the key, a reduction of possibility. Substantial time's provision for the forthcoming involves hoarding and concrete deferred consumption, standing opposed to abstract accumulation in chronometric time. The substantial gift, with debt a social and moral issue, is distinct from abstract credit. Social imperative opposes rational 'economic' choice.

Reason (1979) locates what he terms the 'textual time' of the peasant and capitalism's abstract time in the organisation of production and relates this distinction to different forms of classification. Socialised production of the peasant family is oriented towards use-values of anticipated product, qualitatively distinct and strictly not

commensurable. Accounting practices and orientation to abstractly commensurable exchange-values are inapplicable. Peasant work time is substantial, rooted in concrete labour; "work time is a physiognomy of subsistence" (Reason 1979, 229). Conversely, capitalist labour presupposes an abstract temporal frame: time is money. Reason opposes abstract repetitive temporality to a textual time, a temporality constituting and:

constituted in, the narrative account as the prime formula for reflecting (upon) the courses and causes of events, and which provides the essential means of explicating the sense of the accomplished facts of life...With textual time, we deal not with a dimension but with a way of grasping one's living (ibid. 230-1).

He relates textual time to a world composed by exemplification -- "the production of signs which 'possess' that to which they refer" (ibid. 237): categorisation as opposed to a system of classification.

Classification implies a separation of sign and sense, an arbitrary signifier with a stable structure of rules, articulable criteria of identity which transcend the particular occasion. Reason here refers to Saussure's observation that in linguistics "as in political economy we are confronted with the notion of value: both sciences are concerned with a system for equating things of different orders -- labour and wages in one and signifier and signified in the other" (Reason 1979, 241, citing Saussure 1974, 79). In both, time is an indexible quality. These orders of temporality are clearly implicated in social practice. It should also be noted that they are not mutually exclusive; we can understand the time of the peasant, just as the peasant can understand chronology. The important point is the structural relation of time to social practice, the social and historical production of time. Levi-Strauss writes:

The characteristic feature of the savage mind is its timelessness; its object is to grasp the world as both a synchronic and a diachronic totality and the knowledge it draws therefrom is like that afforded of a room by mirrors fixed on opposite walls, which reflect each other (as well as objects in the intervening space) although without being strictly parallel. A multitude of images forms simultaneously, none exactly like any other, so that no single one furnishes more than a partial knowledge of the decoration and furniture but the group is characterised by invariant properties expressing a truth. The savage mind deepens its knowledge with the help of imagines mundi. It builds mental structures which facilitate an understanding of the world in as much as they

resemble it. In this sense savage thought can be defined as analogical thought (Levi-Strauss 1966, 263).

Levi-Strauss has distinguished systems of totemic classification from history. In the totemic system 'history' is eliminated or integrated; in the Western present the historical process is internalised becoming a force of change. As we have demonstrated above, Western chronometric time transcends discontinuity and difference, closing gaps, relating events and objects to one another. By contrast the totemic system remains faithful to a timeless model of the past, the authority of tradition, the legitimacy of absolute antiquity. The mythical past appears as separate from the present. The ancestors or creators were different from ordinary people, their imitators. The mythical past is joined to the present because nothing has been happening since the appearance of the ancestors except events whose repetition and recurrence periodically overcomes their particularity. The historical process is not denied but admitted as form without content. 'Before' and 'after' exist, but each reflects the other.

The traditional is the predictable, bringing past into present, shortening chronology into present memory and model of the mythical past. This predictability is not the mechanical predictability of the identification of prediction and explanation which depends on a temporality of date and sequence. It is a predictability which arises from incorporating or eclipsing historicity, a predictability which is a social accomplishment.

The rhythm and nature of social change is related to social temporality. Tradition's temporality is short, a thin overlay on the authority of a timeless and mythical past. Chronology is thus compressed. We might say that tradition's temporality is of a different 'scale' to that of contemporary Western historicity. We can make reference here to Gurvitch's (1964) typology of time. He specifies the parameters and forms of social time and relates these to types of social frames and societies. His eight forms of social time depend on different relations between past, present and future, greater and lesser duration, continuity and necessity, and qualitative and quantitative elements. Types of time he identifies include enduring time involving the projection of the past into the present and the future (ibid. 31). Other types of time are cyclical time in which past, present and future are mutually projected into one another with an accentuation of continuity and a weakening of contingency with the qualitative element emphasised (ibid. 32); explosive time where the present as well as the past are dissolved in the creation of an immediately transcended future. Discontinuity, contingency and the qualitative are maximised (ibid. 33). Other types are real lived time as opposed to controlled and mastered time.

Gurvitch's social frames and societies, correlated with these different times, include: social levels (ecological base, practice, symbol and value systems, collective consciousness), interpersonal and

intergroup relations, structured and unstructured social groups (such as kinship groups, organisations), social classes, archaic, historical and contemporary societies. While we oppose the strong typological basis of such work it is nevertheless a useful heuristic. What needs emphasis is the social production of times -- their relation to determinate structures of power and interest. So we need to consider the ideological implications of the temporality of tradition (described above) and the relationship between writing and time.

Writing transforms the temporality of tradition, extending time, bringing the absent present in the graphical trace. Writing first appears as a list, as a means of storage. No longer the storage of ritual information in the memory of the initiate in tradition, writing allows the creation and control of information, of records and archives (Cf. Goody 1978). As such it is the basis of the development of surveillance and forms of social control. Inscription is duration; writing transforms temporality, but temporality itself is not neutral. As an aspect of social practice, temporality is related to social control, written into relations of power.

Temporality And Social Change

Time does not form merely a container within which social life is played out but constitutes a medium through which social relations are produced and reproduced. Time is a social production and accomplishment and, in turn, is actively involved in social reproduction and transformation. The temporality of small-scale societies is inconceivable apart from the social relations in which it is embedded just as capitalist production is bound up with an abstract spatial time. Traditional archaeological practices resulting in the formulation of chronologies and periodisation of materials depend upon and presuppose the asocial 'reality' of a linear and abstract time supposedly applicable throughout history. We argue instead that each social practice, each society and each event has its own rhythms and periodicities, its own time.

Such a perspective seriously questions the validity of traditional archaeological conceptions of time, and the implicit identification of time with change (related to 'problems' of the reality of archaeological periodisations and how transitions might develop between them). Social change is not a single movement pervading the entire social totality but is articulated in time and space forming a medium for the restructuring of social relations. Both temporality and spatiality form components of social life in a situational social context in which purposeful human agency is structurally positioned. This positioning serves to shape day-to-day activities and alterations in their form and nature. Space and time are socially produced as concrete material spatialities and temporalities (e.g. the time-space of architectural forms) and as a set of relations between individuals and groups. Such space-time is neither abstract nor apart from human social existence but dense: filled up with the contents of social existence related dialectically to society's image of itself as a continuing form. The social constitution of time

and space is not just a routinised process but one pregnant with contradictions, conflicts and struggles. Space and time form a medium for the networking of power and ideology in relation to competing interests and social strategies of individuals and groups. Power, ideology, conflict, space and time can only be understood relationally. Each is shot through and partially encompassed by the others. Furthermore, all these concepts are not neutral but critical categories which can be turned in on themselves and in relation to an analysis of the social production of archaeological knowledge.

Conclusion

We have argued that time in archaeology is not to be conceived as just something manifested in, for example, C-14 chronology or publication dates. Time is not a neutral device simply utilised to measure the traces of the past. Time is always political (where the term political refers to the manner in which social relations ought to be organised). Archaeology itself is a mediated relation between what happened and its representation in the present, a mediation between being historical and doing history: the social production of archaeological knowledge. So our historicity and the understanding of the social determinants underlying contemporary archaeological practice are part of the process of explaining the past. This is simply to say that the past is temporally inseparable from the event of archaeology i.e. excavation and the production of texts. Archaeology is not simply filling out an empty abstracted time with the decaying or embalmed debris of history. Archaeology's appropriation of the past is a moral and political act. Choosing a past, that is constituting a past, is choosing a future. The ideology of contemporary archaeology's temporality is that it is imposing a Western evaluation of measured abstract time on a multitude of pasts which cannot answer for themselves -- even the dead aren't safe. The event of doing archaeology becomes disguised in a separation of past and present with present disappearing and past becoming a spectacle, entertainment, illustration.

Notes

1. The most sophisticated discussion of time in archaeology has been produced by Bailey (1983). We do not have space here to discuss Bailey's work which we have critically assessed elsewhere as part of a more detailed discussion of the relationship between time and archaeological theory and practice (Shanks and Tilley in press).

References

- Althusser, L. and Balibar, E. 1970. Reading Capital. London, New Left Books.
 Bailey, G. 1983. Concepts of time in Quaternary prehistory. Annual Review of Anthropology 12, 165-192.

- Berger, J. 1984. And Our Faces, My Heart, Brief as Photos. London, Writers and Readers.
 Bourdieu, P. 1963. The attitude of the Algerian peasant toward time. In Pitt-Rivers, J. (ed.) Mediterranean Countrymen. The Hague, Mouton, 55-72.
 Goody, J. 1978. The Domestication of the Savage Mind. Cambridge, Cambridge University Press.
 Gurvitch, G. 1964. The Spectrum of Social Time. Dordrecht, Reidel.
 Heidegger, M. 1972. On Time and Being. New York, Harper and Row.
 Levi-Strauss, C. 1966. The Savage Mind. London, Weidenfeld and Nicholson.
 Reason, D. 1979. Classification, time and the organisation of production. In Ellen, R. and Reason, D. (eds) Classifications in Their Social Context. London, Academic Press, 221-247.
 Saussure, F. de 1974. Course in General Linguistics. London, Fontana.
 Shanks, M. and Tilley, C. 1987. Re-Constructing Archaeology. Cambridge, Cambridge University Press.
 Shanks, M. and Tilley, C. n.d. Social Theory and Archaeology. Cambridge, Polity Press (in press).