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Reworking E. P. Thompson's 'Time, Work-discipline and Industrial Capitalism'

Paul Glennie and Nigel Thrift

ABSTRACT. This paper attempts to lay foundations for a new account of the histories of times in England (and beyond). A disjuncture has arisen between much recent writing about time and the most influential general accounts of time and society in the historic and contemporary West. The latter emphasize a social and geographical diffusion of a modern time competence, stemming from intensified industrial work-discipline, and centred on clock time, whereas the former emphasize the multiple and qualitative nature of times. Through a discussion of major theoretical themes (the multiplicity of time-senses and of time-disciplines; the skilfulness of temporal practices; and symbolic facets of time), we point to central topics in a reformulated account of western time-senses. KEY WORDS • times and timing • work-discipline • time-consciousness • clocks

There is no fairyland where people experience time in a way that is markedly unlike the way in which we do so ourselves, where there is no past, present and future, where time stands still, or chases its own tail, or swings back and forth like a pendulum. (Gell, 1992: 315)

This paper reflects on E. P. Thompson's (1967) seminal and much reprinted article in the historical journal *Past and Present* on 'Time, Work-discipline and Industrial Capitalism' as seen through the work carried out on times and societies in the subsequent quarter of a century. Thompson's pioneering observations, suggestions and analyses have clearly had immense impacts, and they provide the single most influential account of the changing relations between time and society in England (and indeed in the West), in the period leading up to

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fully-fledged capitalism in the mid-19th century. Nevertheless, it is astonishing that Thompson (1991) himself could conclude in *Customs in Common* that 'while interesting new work has been done on the question of time [since 1967], none of it seemed to call for any major revision of my article' (1991: vii, our italics).

We want to take issue with Thompson's claim. We will argue that, on the contrary, there have been several major and interrelated changes in writing about time in the social sciences and humanities since 1967. These changes stem from a variety of sources. On the one hand, they have been brought about by numerous substantive historical, anthropological and sociological investigations. And on the other, they reflect the influences of various theoretical impulses in the human sciences over the last quarter-century, not least among them those of feminism and post-structuralism. Our suggestion is that this wide range of contemporary and historical research supports an alternative account that differs quite radically from Thompson's original, and we attempt to provide the rudiments of such an account.

Accordingly this paper is in three parts. In the first we briefly outline the content of Thompson's paper and discuss its impact around the world. Next we discuss changes in thinking on time in the social sciences and humanities that have occurred since the publication of Thompson's paper, concentrating especially on its multiple and qualitative nature. The third section considers the necessary reformulations to Thompson's paper in the light of this research, concentrating on four theoretical themes: the multiplicity of senses of time; the multi-faceted nature of the concept of 'time-discipline'; the skilful nature of time-competence; and the symbolic meanings of times. Under each of these themes we suggest ways in which, in light of the reformulations, the accounts of time-discipline in England of Thompson, and others, could be modified. We conclude with some observations on a possible research agenda arising out of these themes.

Thompson's account cannot only be challenged in the theoretical register. There has been important empirical research subsequent to Thompson's paper which suggests that many of his empirical speculations, pioneering though they were in 1967, were inaccurate or insufficiently nuanced. This empirical work is discussed elsewhere (Glennie and Thrift, forthcoming), and will not be addressed at length here. Similarly, we acknowledge the importance of leisure and civil administration in the constitution of senses of time, but have discussed these elsewhere rather than here.

1. The Context

In examining time as a part of the changing culture of 18th-century English working people, Thompson sought to unpack the connections between the

restructuring of industrial working habits and changes in people's inward notation of time. Thompson's chief target was the view that changes in time-discipline (greater synchronization of labour and more exact time-routines) were simple by-products of new manufacturing techniques. On the contrary, argued Thompson, such changes involved much broader cultural changes: a transformation to work ethic and orientation to labour. These changes entailed the imposition and eventual internalization of a specific 'time orientation' to labour and life.

Central to this transition was the replacement of 'task orientation' (the organization of time according to the necessity of performing particular tasks, with little attention paid to time in labour: 'the day's tasks . . . seem to disclose themselves, by the logic of need') by 'time orientation' (work organized by regular, coordinating time-disciplines). The progression was also one from natural, irregular, and humanely comprehensible time, blurring work and leisure (indeed, these are anachronistic concepts for task-oriented societies), to an 'unnatural' life tyrannized by the clock and timed labour. New time-disciplines were, initially, externally imposed through official timepieces, and systems of communicating time to the workforce and enforcing continuous work during the working day. But these disciplines became internally realized in quite new everyday time-senses among the labour force, and came to dominate society as a whole, not least through the school system. The process of internalization was greatly facilitated (but certainly not caused) by time ethics that had evolved from 17th-century Puritanism. Thompson dated this transformation from the end of the 18th century when many people were acquiring access to precise clock time. 'Indeed, a general diffusion of clocks and watches is occurring (as one would expect) at the exact moment when the industrial revolution demanded a greater synchronisation of labour' (Thompson, 1967: 69).

One striking consequence, and indication, of the influence of Thompson's paper (as also of the parallel work of Keith Thomas) was that historians have subsequently tended to take its exploratory and pioneering proposals as given, rather than as a basis for sustained empirical research.² Thompson's points were often adopted as an axiomatic framework for linking changes in time-sense to other dimensions of societal change (e.g. Thrift, 1981; Landes, 1983; Hopkins, 1982; Harvey, 1989). Widely anthologized (e.g. Flinn and Smout, 1974), the paper was, and is, a key text in the socialization of history students, rapidly gaining an authoritative status which belied the extent to which it was as much a paper of questions as a paper of answers. In short, Thompson's discussion became so influential that it tended to block out new work.

Only in the last decade has this situation begun to change, but critical treatments have not really attained the critical mass needed to initiate a recasting of Thompson's argument. For example, works by Whipp (1981), Harrison (1986) and Thrift (1988) have been widely treated as free-standing islands of critique,

rather than as components of a sustained reformulation. In this regard, it is striking that nearly all of the historical work which leads towards a recasting of the Thompsonian framework has been concerned with areas other than Britain: the United States (O'Malley, 1990, 1992); Australia (Davison, 1992); Japan (Smith, 1986; Shimada, 1994); Germany (Wendorff, 1980); and the Netherlands (Wildenbeest, 1988). Several of these authors initially tried to elaborate Thompson's framework for their own particular societies, reformulating their approaches when his pattern, as it were, 'didn't work' outside the English 'core'.

Finally, it is also worth pointing to the historical specificity of Thompson's paper. From the perspective of the mid-1990s, the period from the 1950s through to the 1970s appears as a high point in the synchronization of societies. In 1967, when Thompson's paper was published, the impending breakdown of some facets of modernity into the desynchronized society of postmodernity was presumably much less obvious than it appears in hindsight (Lash and Urry, 1993; Urry, 1991, 1994).

2. Changes in Thinking on Time in the Social Sciences and Humanities

The chief component of the changing theoretical backdrop to the study of time in the social sciences and humanities is the necessity of recasting notions of social time. In particular, social time is no longer conceptualized as a single unitary and absolute system, a conceptualization which was, in any case, historically unusual (Wilcox, 1987). Instead, social time is seen as intrinsically manifold; as multiple and heterogeneous; as a discontinuous process with its own origins and archaeology; as 'beyond the transformation of dualisms into multiple dualities' (Adam, 1995: 53). Such developments characterize many disciplines, including philosophy, literary theory, social theory, sociology, social history, anthropology, and human geography. Work in all these disciplines has, we suggest, become more alive to the need for complex empirical modes of enquiry and writing strategies that reflect and refract the discovery of multiple times and spaces, as we note below.

The sense that time 'has many species' (Castoriadis, 1991: 38) runs through many different parts of the social sciences and humanities. For example, *philosophy* now recognizes time as the form of diversity, with a large number of dimensions (ontic, existential, historical, ontological and so forth) which cannot be domesticated in any unitary and absolute model (Wood, 1990). The focus of discussion has therefore tended to be on the hermeneutics of the temporal structure and, especially, the way in which language structures time implicitly. In 'this world of texts and discursive sequences, there is no one time. Multi-dimensionality is the rule' (Wood, 1989: 339). In other words, the text becomes

the model for temporal complexity without a beginning or end, for excess rather than a finite totality (Johnson, 1993). In Derrida's work, to take one of the most compelling instances, the strategy is to reinstate 'the term history, with the aim of transforming it', so that it becomes possible to realize, following Althusser and Sollers, that 'there is not one single history, a general history, but rather histories different in their type, rhythm, mode of inscription – intervallic, differential histories' (Wood, 1989: 373).

In *literary theory*, a similar kind of conception of time now reigns, in which the temporality of texts and rhetorics is constantly stressed as a means of avoiding the levelling in otherness (Lloyd, 1992). For example, the essays in Bender and Wellbery (1991) concentrate on different cultural constitutions of historical time: on what they call, mimicking Bakhtin, 'chronotypes', the basic category through which human beings construct reality (see also Allan, 1994):

... chronotypes are models or patterns through which time assumes factual or conceptual significance. Time is not given but ... fabricated in an on-going process. Chronotypes are themselves temporal and plural, constantly being made and remade at multiple individual, social, and cultural levels. They interact with one another, sometimes cooperatively, sometimes conflictually. They change over time and therefore have a history or histories, the construal of which itself is an act of temporal construction. (Bender and Wellbery, 1991: 4)

From the perspective of *social theory*, time is also usually seen now as multiple and heterogeneous. For example, for Adam (1990) time consists of a 'multiplicity of . . . aspects' in which 'all aspects are important':

... the physical universe, living nature, human social groupings, written language and symbolic knowledge, social records, technology, artefacts, clocks and calendars all form an integral part of our social life today and, since they are all implicated in a full understanding of time, it seems essential that they are explored in their own right. (Adam, 1990: 47)

Similar kinds of conception of time have been articulated by social theorists as diverse as Giddens (1979, 1984) and Elias (1984/1992).

From the perspective of sociology and social history, we can talk of 'multiple timings', of 'the many ways in which time is asynchronously produced by physical circumstance, historical events, social placement, and the expectations of family or other communal units' (Bender and Wellbery, 1991: 11). In terms made popular by Foucault, a writer who has been increasingly influential on the practice of history, time is no longer seen as an endless and continuous scale but as a discontinuous and multiple process with its own origins and archaeology:

Such a task implies the calling into question of everything that pertains to time, everything that has formed within it, everything that resides within its mobile element, in such a way as to make visible that rent, devoid of chronology and history, from which time issues. (Foucault, 1973: 332)

In other words, time becomes a series of collectively produced orders validated by continuously inventive human practices (Adam, 1990, 1993; Hareven, 1991; Luckmann, 1991; Aminzade, 1992).

In anthropology, again, time is now thought of as a diverse phenomenon. Earlier staple anthropological assumptions which allowed traditional cultures to be depicted as anachronistically caught up in unchanging natural cycles and cyclical ideas of time; as unable to conceive a linear time; and - by virtue of their oral means of culture transmission – as dominated by narrative, have all been debunked (Gell, 1992; Fabian, 1993). Anthropologists now stress the sheer range of temporal values present in different traditional cultures (Gell, 1992; Munn, 1992; Rutz, 1992; Frankenberg, 1994). For example, Howell (1992) discusses two southeast Asian societies, in which the passage of time is of major concern to one, but of little concern to the other. Again, it now seems that most societies have some form of a linear time-sense, but that it is one sense among many (Wallman, 1992). Finally, Goody and others have shown how many anthropological studies have assumed that traditional cultures are narratively based when in fact the precise temporal framing and cross-referentiality associated with narrative are uncharacteristic of story telling in oral cultures. Indeed the act of writing itself may lead anthropologists into acceptance of the presence of a cultural master narrative of time when, in fact, traditional societies keep many stories (and times) alive in continuous and discontinuous forms (Goody, 1991).

Last but by no means least, human geography has worked with notions of multiple times and spaces for some considerable time. In a variety of ways, the subject has become alive to the need for complex empirical modes of enquiry and writing strategies that reflect and refract multiple times and spaces. This has occurred through so-called 'chronogeography' (Thrift, 1977; Parkes and Thrift, 1979); through time-geography (Hagerstrand, 1970, 1973, 1982); and through numerous historical studies of the geography of times (Thrift, 1981, 1988; Davison, 1992; Pawson, 1992; Stein, 1995).

There has, of course, been a long history in the social sciences and humanities of time and space being intimately related, from Bergson to Sorokin. However, this relationship has recently become more clearly defined, for four different reasons. First, and most clearly, there is the simple empirical fact of spatial variation. Different forms of temporal structure can be found in different places or distributed across different places. There is a geography of time, timing and time-consciousness. Second, there is the degree to which time is inseparable from space: changes in time affect the social structure of spaces and vice versa. In other words there are a myriad of timed spaces which, although they may be undergoing time—space 'compression' (Harvey, 1989), are not necessarily becoming more alike. In other words, time is bound up with spatial organization of society, and vice versa, and this is a complex process of interrelation which

cannot be absorbed into a generalized linear clock time.3 Indeed, some writers (Lash and Urry, 1993; Urry, 1994) now claim that industrial societies are undergoing a process of desynchronization. That is, as a result of the increase in flexible work scheduling, technological innovations like the video, and the rise of self-fashioned biography (Beck, 1992) the personal timetables of people are now able to diverge to a much greater extent than previously and, in turn, this means that the use of particular spaces at particular times has become less and less predictable. Third, there is the importance of travel and communication. both as vital elements in the construction of time (for example, see the literature on the growth of railway time in the 19th century: Thrift, 1981; Schivelbusch, 1986; Stephens, 1989; Bartky, 1989) and as a social phenomenon in itself. That is, travel and communication is not just a link between activities but an activity in itself, with its own pleasures and goals. Fourth, there is the importance of particular experiences of space and time which have both underlined and made clear certain related symbolic aspects of time and space, especially the importance of new forms of communication (like television) and the importance of places as themselves ensembles of signs and meanings of time and space. This theme intersects with a more general upsurge of interest in symbolic aspects of time, which we discuss in section 3.4, below. For the moment, we wish simply to reiterate the necessity of considering times and spaces together, rather than the former alone.

Across several disciplines, feminism has been of pivotal importance in the changes listed above, highlighting gender relations as a powerful force in constituting time (Adam, 1990, 1994, 1995). Feminist consideration of time, and the necessity of considering gender when examining how time is socially constructed, has taken four main forms. First, history has increasingly been seen as a male preserve, largely because of the uses of temporal categories in conventional history (e.g. 'work', 'leisure') which are now seen to be gender biased (Hareven, 1982; Kahn, 1989; History and Theory, 1992; Davies, 1989, 1994). Second, women's relationship to and experience of time is seen as radically different; it is associated with birth and beginnings (rather than death and endings), with mothering, and with care of others (Kristeva, 1981). In other words, time is more relational. (Nor should it be assumed that women's temporal structures are 'looser' than men's: much anthropological literature points to the general pattern across pre-industrial societies of women having a more sophisticated time-sense than men, since they do most of the work.) Third, linear clock time is seen, from the Rule of Benedict to the factory timetable, as male time. The dominant temporal consciousness has historically developed out of certain patriarchal power interests (Davies, 1989; Forman, 1989). Fourth, women's lives are seen as having fundamentally different temporal structures which affect the construction of their identity. Women experience a distinctive tension between dominant (male) temporal consciousness (the prevalence of linear and clock time in wage labour and the public sphere) and their own quite distinctive usage of time shaped by gender relations (Davies, 1989; Leccardi and Rampazi, 1993).

3. Reformulating Thompson

Given these changes in writing on time in the social sciences and humanities, how might we begin to reformulate Thompson's 1967 paper? We have approached this task under four headings: the multiplicity of times; the multiplicated nature of the concept of time-discipline; the skilled nature of time-competences; and the symbolic meanings of times. Under each heading we provide a general reformulation and also, as in Thompson's paper, apply this reformulation to the history of times in England.

3.1 Multiple sources of time-sense

A major change since Thompson wrote may be found in the empirical studies of historians, anthropologists and archaeologists. Increasingly these have stressed the diversity of each and every society's sense (or rather senses) of time. Almost the sine qua non of these literatures has become that manifestations in temporal forms of thinking can be found in every society, and that the degree to which these are elaborated upon and are ultimately important varies from society to society, but that we cannot find societies with non-complex timing schemes. The idea that there are societies where there are simple and simplistic forms of temporal thinking seems to be, rather, a powerful element in western processes of 'Othering', the result of paying too much attention to the exotic and the unusual at the expense of the mundane and the routine (Bloch, 1977).

This process of othering does not take place only in the spatial register concerning other coexistent societies. It is also found in work that engages the historical register and Thompson's work is an example of precisely this move. His historically specific notions of what a 'modern' society is centred on then allows him to distance historical societies in simplistic ways. In particular, by concentrating on the world of industry and work he is able to ignore other important earlier sources of time-awareness, time-competence and time-discipline.

Thus, in the case of England, Thompson's work means that he neglects time-structuring other than that stemming from workplaces. Yet there were many other channels through which time-senses shaped the everyday experiences of medieval and early modern English people. Several writers have highlighted the importance of trade and marketing, and of the church (Landes, 1983; Le Goff, 1984, 1988a, 1988b; Elias, 1984/1992). In addition, we can point to the impact

of structures of protoindustrial, artisanal, and agricultural work (Clark, 1991; De Vries, 1993, 1994); of communications (Thrift, 1990); of civic administration (Tittler, 1991) and the law; of recreation and consumption (Borsay, 1989; Glennie, 1995); and of various disciplinary regimes such as prisons, workhouses, and hospitals (Driver, 1993). In short, time-awareness, and a significant degree of time-orientation in everyday life did not await the imposition of regular, standardized, and coordinated time patterns associated with factory work-discipline.

In the context of pre-modern western Europe, particular attention needs to be paid to trade and marketing, and to the church, as sources of time-structuring. These themes have previously been recognized by commentators (including Thompson), but marginalized where commentators imply that the impacts of trade and religious life on time-consciousness were restricted to small parts of the population. For example, Thompson himself suggests that commerce and Puritanism affected 'intellectual culture' rather than working people (1967: 56). Neither commerce nor religion, however, had such a narrow influence.

In the case of the former, time was integral not just to specific instruments of trade, such as usury and bills of exchange, but to the regulation of markets. Thus the protection of ordinary market customers from forestallers, wholesalers and outsiders depended on reserved periods of trading between specified hours, sounded by bells at fixed times (e.g. Coss, 1986). And this is not even to consider the many ways in which urban production was restricted, for example through prohibitions on activity outside specified hours.

Considered dynamically, the church involved very large numbers of people, not a closed subsection of the population. At least four factors should be borne in mind here. First, there is the sheer size of the clerical population at any given moment in the Middle Ages (even allowing for multiple position-holding). Second, there is the fact that the clerical population of all sorts of monastic institutions were considerably outnumbered by lay elements: working lay brothers, servants, corrodians (Harvey, 1993). Third, the turnover of clerical population, both those who left Orders, and those who encountered church-institution timesenses in the course of their education, provided for the channelling of timing conventions from ecclesiastical institutions into the population at large. And last, but not least, lay people were incorporated into church times and church calendars through services, saints' days and festivals, and distributions of alms and doles, especially where these were related to anniversaries (Burgess, 1987; Harvey, 1993).

We also wish to argue for the general importance of recreation and leisure (although this may be an anachronistic term) as sources of temporal structure in everyday life, and to emphasize their increasing importance in periods of increasing urbanization, as in 17th and 18th-century England. In short, there were a whole host of contributing areas to experience of, and senses of, time:

paid work; household work; private and public recreation; religious identity and division, and the civic unity that to some extent countered it, over matters like holidays; urban growth, and the spatial segregation of different activities and resultant changed temporal relationships between them; and the commercial exploitation of general motives such as gambling and curiosity. Incorporating this range of potential influences on time-competence and time-consciousness means substantially broadening the focus of discussion beyond viewing the time-orientation of life as dependent on time-discipline in factory or other large-plant labour.

Temporal precision was not only not a facet of work-discipline, it was not even dependent upon 'modern' rationality in a more general sense. It is worth highlighting that the most precise everyday measurements and reckonings of time in early modern England were those made by astronomers on the one hand, and astrologers on the other. In other words, two interests often taken as quintessentially 'rational' and 'superstitious' respectively, were both driven to precision. Contemporaries would not have seen the clear distinction assumed today in these activities, and the astrological end of the spectrum probably involved more people than scientific astronomy. Several of these men, especially those who combined science (through the Royal Society) and astrology, sought a measurable basis and a law-like status for astrology. This was perceived as, above all, involving precision in timing. In this area, historians need to examine how diverse timing traditions and practices coexisted and interacted among those rooted in two or more of science, religion and astrology.

On the range of empirical indicators used by Thompson, subsequent work shows that he underestimated the numbers of private timepieces in circulation before the end of the 18th century; their social and geographical diffusion; the proliferation and social penetration of public clocks, sundials and bells; the density of indirect time cues from everyday life, especially in towns; and the pervasiveness of time-reckoning skills and vernacular schooling (topics discussed in Glennie and Thrift, forthcoming). These developments were marked in, but by no means confined to England (Weatherill, 1988; Baulant et al., 1988; Walsh et al., 1988). The many studies on this topic make it puzzling that some historians of time still assert a paucity of work on ownership of timepieces (O'Malley, 1990: 23, 1992: 356; Smith, 1994: 322–3). In short, neither the information nor the ability to reckon with time awaited factory work-discipline.

The more general impact of these theoretical and empirical shifts has been to undermine Thompson's central concept of 'task-oriented' societies, which is now seen as oversimplifying notions of time and the motivations for action in pre-industrial societies. Ideas of traditional cultures as embedded within unchanging natural cycles, characterized by cyclical rather than linear ideas of time, and dominated by oral, narrative means of culture transmission, have all been debunked. Anthropologists now recognize many and varied temporal

values within traditional cultures, including some in which the passage of time is a major concern (Howell, 1992; Wallman, 1992), and the inherently cultural character of any timekeeping system or beliefs is also now a commonplace observation (whereas it would certainly not have been so in 1967). Senses of time derived from nature were often associated with disciplined work, and fierce attention to saving time (Smith, 1986; O'Malley, 1992). That senses of what time *is* come from nature, like the passage of the sun and the seasons, does not mean that senses of how to *use* time are somehow free of ideological baggage. In any case, what counts as 'a task' is very much a matter of cultural values, not least today (Ingold, 1995). 'Work is never done simply because it needs doing – some chain of cultural justifications makes a particular task necessary and proper at a given time, and dictates the way it is done' (O'Malley, 1992: 344).

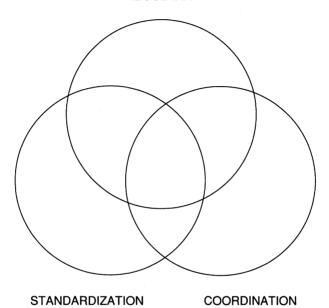
None of these observations need minimize the degree to which workers were forced into factory discipline, or the importance of the clock. It is to situate Thompson's account, however, in two chief ways. First, it suggests that time-discipline can exist without clock discipline. Second, it suggests that workers were struggling as much against *more* discipline as against discipline about *time* and clocks as such. In Smith's words, the struggles were over 'who owned time, and on what terms' (Smith, 1986: 196).

3.2. Problematizing 'time-discipline'

The identification of diverse sources of time-structure in everyday life is more than an empirical point, because it highlights the extraordinary taken-forgrantedness of Thompson's concept of time-discipline. Many arguments in the foregoing discussion point to a tendency for the phrase/concept 'timediscipline' to be used somewhat uncritically. In particular, it has usually been used in the singular, whereas we see time-discipline as a multi-faceted concept whose elements ought not to be conflated with one another. We have at least three elements in mind here, shown schematically in Figure 1. By standardization we mean the degree to which people's time-space paths are disciplined to be the same as one another's. By regularity we mean the degree to which people's time-space paths involve repetitive routine. By coordination we mean the degree to which people's time-space paths are disciplined to smoothly connect with one another's. It is possible to depict these elements, and their variable interrelationships, in various ways, although none of these are unproblematic. A Venn diagram is not an ideal form to display the elements shown (Figure 1a), but others (for example, as axes in three-dimensional space) raise difficulties that seem at least as serious. Here the representation of three dimensions of time-discipline allows the illustrative depiction of trajectories of industrial change. In addition, there are further dimensions of discipline which

FIGURE 1 a Three Dimensions of Time-discipline

REGULARITY

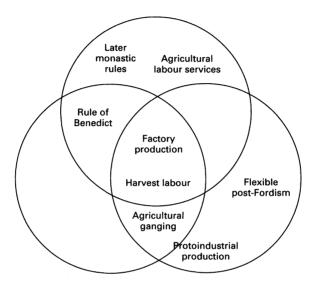


are not incorporated within these diagrams: for example, the degree to which patterns were enforced through coercive means, or adopted more or less voluntarily.

Nevertheless, such complications do not greatly affect our main point, which is simply that various permutations of these elements are possible, whereas prevailing conceptions of time-discipline, following Thompson's approach, require all three to be part of a single disciplinary force. Fordist factory discipline does indeed involve high degrees of standardization and regularity and coordination. But other sorts of industrial arrangements are not hard to find, and could function efficiently (Figure 1b). For example, related to production we can point to protoindustrial work (in which work was coordinated but not regular, and only in some respects standardized), or many agricultural tasks (in which work might be regular but neither coordinated nor standardized to any great extent). In any case, the three-pronged intensity of Thompson's time-discipline did not need to await the factory, but characterized particular tasks such as harvesting (in which seasonal work was standardized, coordinated and regular). In contemporary western society, so-called flexible production systems are very much less

FIGURE 1 b
Examples of Different Forms of Time-discipline

REGULARITY



STANDARDIZATION

COORDINATION

standardized or regularized than those of Fordist production, but all manner of coordinating mechanisms have become ever more finely honed. Moving to sources of time-discipline outside productive activity, commercial disciplines were those of coordination and to a lesser extent regularity, while monastic disciplines such as the Rule of Benedict stressed standardization and regularity, without great weight on coordination as such (McCann, 1952).

In other words, Thompson's conception of time-discipline represents a particular combination of high degrees of standardization and regularity and coordination. Above all, early factories imposed a need for the schedules of many different people to be standardized, exact duplicates of one another. It is in the combination of all three facets of discipline that the factory appears distinctive, especially in reimposing a need for the schedules of many different people to be exact duplicates of one another. However, contra Thompson, the factory cannot be considered as some kind of end-point. Today's so-called 'flexible production' regimes, on which there is now a large literature, characteristically involve much more intense coordination, but sharply diminished requirements for standardization and regularity (Gertler, 1988). It is also worth

reiterating that work can be intense and morally compelling without work patterns being standardized, or coordinated, or regular.

More than this, we want to emphasize that notions of standardization, regularity and coordination are themselves culturally determined to a very considerable degree. 'Timing and timeliness are defined differently in various cultures and under different historical circumstances' (Hareven, 1991: 169). Studies of other parts of the world have shown how wrong it would be to assume that western conceptions about these notions are the only ones possible. For example, as the western-language literature on Japanese society has mush-roomed during the last few years, it has become increasingly obvious that both social and work practices in Japanese industry are very problematic for western frames of reference and analytical categories (Smith, 1986; Hareven, 1991). That contemporary developments are not a special case in this regard is evidenced by the parallel problems encountered in analyses of Japanese agriculture past and present, particularly in regard to rice cultivation (Shimada, 1994).

In summary, Thompson's notion of time-discipline is both too narrow, and too contextually specific. These propositions can be verified by reference to the historical record, the record of other cultures, and contemporary analytical developments. Work in all these areas suggests other means of time-discipline which conceive of time more flexibly, but which still demand considerable rigour. Over time, the flexibility and rigour of work patterns have fluctuated in response to many factors. More generally, two important lessons may be drawn from empirical work. On the one hand, there is the danger of 'simply assum[ing] connections between the way people work, or are supposed to work, and the way that they think' (Foster and Woolfson, 1989: 52). On the other hand, even in supposedly strict temporal regimes, it should be recognized that workers may act only minimally towards the script they are given, never taking on its key premises, and finding ways of giving themselves room to manoeuvre (Rule, 1994). Thus work on time-discipline demands substantive research of practices, not just the demonstration of explicit temporal frameworks.

3.3 Timing as skilful behaviour

Thompson's pioneering thinking about time as referring to practices of timing, rather than to an object in the physical world, or to an innate property of human consciousness, has been much developed since the 1960s (Elias, 1984/1992; Bender and Wellbery, 1991). Thompson's sense of time as an externally derived discipline, which comes to be internalized as natural, remains a central theme in subsequent work but with some important modifications. Various theorists of everyday practice have considered how taken-for-granted practices generate a 'correct' status simply by being performed, most clearly through notions like Bourdieu's concept of *habitus* as implicit knowledge consisting of embodied

practice in time (De Certeau, 1984; Bourdieu, 1987; Bedoucha, 1993; Gosden, 1994).

A major implication of such work is that time-competence promoted by particular economic or cultural systems (such as industrial capitalism, commerce or the church), is not confined to specific arenas (respectively factories, markets or monasteries). Looked at in this way, timing practices can take on something of 'a life of their own' once they have become part of everyday life. They need not require constant re-stimulation through the commercial or religious imperatives that originally brought them into being. By being practised, time-competences can become increasingly independent from the particular sources of time-discipline from which they originate. In the case of England, for example, even as guilds and monasteries withered away in late medieval and early modern eras, their senses of time-consciousness were quite capable of persisting, or mutating through combination with other time-senses.

Treating temporal skills as practices helps to explain why late medieval contractions in urbanization, economic regulation and monasticism do not seem to have produced any general collapse of time-senses. Instead, we envisage timing practices, originally religiously or economically inspired, subsequently being drawn into new sets of cultural meanings. For example, certain holidays persisted as part of recreational calendars in early modern England long after their theological justification had been explicitly abandoned, and several studies emphasize the mutability of religious and recreational holiday calendars (Cressy, 1989, 1992; Duffy, 1992; Hutton, 1994). In other words, seen with the benefit of hindsight, Thompson's work drastically exaggerates the *static* nature of 'traditional' holidays, calendars, and irregular working practices such as 'Saint Monday'. These became treated as anthropological features of preindustrial life, rather than as historically-specific practices found in only certain districts of 18th-century England (Rybczynski, 1991).

The thrust of this section, therefore, is that 'reading off' time-competence from the presence of immanent stimuli, which are presumed to have universal and ahistorical effects, is inappropriate. This is not to say that time-competence (or any form of knowledge or social practice) might not become attenuated into forms that could be described as regressive, or less advanced. But it is to say that, even where this occurs, more has occurred than simply 'the withdrawal of a stimulus'. It is necessary to enquire about wider questions of changing combinations of temporal practices and the new meanings that are ascribed to them.

Finally, the analysis of time-competence in terms of practices raises questions about the social stratification of times. The interaction among social groups in everyday life, in both towns and countrysides, creates numerous channels and spaces for the circulation of ideas about time and timing. These make it impossible to understand working people's time-consciousness as

hermetically sealed off from the everyday temporal patterning and the temporal discourses of other social groups (cf. Ginzburg, 1980).

3.4 Symbolic meanings of times

Following anthropologists like Evans-Pritchard, Leach, and Bourdieu, Thompson certainly places some considerable emphasis on the symbolic meanings of time. But, seen in retrospect, Thompson's treatment of the moral-psychological dimension of time seems too narrow. For example, pre-industrial English temporal symbolism tends to be reduced to Puritanism which, in turn, is characterized in much too monolithic a fashion, instead of as the set of competing symbolic events and institutions that it actually was (Collinson, 1988; Ingram, 1995).

Thompson's treatment of the symbolic division of social time is of a piece with the idea of an amorphous capitalist clock time which diffused among social groups and places, a cage of new socio-temporal relations consisting of various practices and ideologies all bent towards the same goal. But in these post-Foucault days the treatment of symbolism and meaning is now less reductionist. Discursive formations, which rely on the word and the image, and especially the printed word and the printed image, are the currency of thought. The discursive turn has refigured temporal symbolism and meaning as a relatively discrete network of texts and images, devices (like clocks and stage-coaches) and subject positions through which temporal metaphors and models are produced, circulated and consumed, becoming – in time – the very fabric of experience. These networks will include specific orientations to and constructions of the past, the present and the future (Lowe, 1982), and notions of temporal processes, whether these be religious teleologies, evolutionary instability, or rational economic development.

It is no surprise, therefore, that recent writing on the symbolism and meaning of times has tended to move away from clocks and clock time as brute instruments of temporal conquest towards the consideration of other devices and metrics, like timetables.⁴ But even when clocks are considered, they are now usually seen as bearers of meanings which in turn are constitutive of what is regarded as time (e.g. Freake, 1995 on wristwatches). Thompson himself points to some of these meanings: sexual, commercial, and so on, but never elaborates on them. In particular, the discursive turn points to one formative omission which Thompson makes in his account of England. That is his neglect of the role of commerce and monitoring practices. Yet it is quite clear that the commercial revolution, and the changing attitudes to money that accompanied it, were both crucial elements of the history of time in England, both because of the way that they spread important new means of time-reckoning (e.g. numeracy, Cohen, 1982: chapter 1; Cohen, 1993; Thomas, 1987) and because of their

ability to produce new means of framing time such as the bill of exchange (with its implicit spatio-temporal structure) and, later, the perpetual share (with its uses for financing commercial voyages over long distances). Money, in particular, can now be seen as an essential element in the changing perception of time, since it demanded new ideas of time (typified by the invention of purgatory as a way to excuse the usurer: Le Goff, 1984), and itself produced new modes of time use, based on concepts of risk and speculation (Knights and Vurdukakis, 1993).

4. Concluding Comments

It is important to point out here that Thompson was certainly aware of the need for a complex account of the history (or rather histories) of time (or rather times). For example, he pays regard to gender insofar as he identifies women's different (and usually more demanding) experiences of time. He notes, but plays down the significance of, church clocks (Thompson, 1967; 63-4). However, it is difficult not to conclude that Thompson is working with an implicit model which documents the conquest by the triptych of clocks, class and capitalism of a task-orientated peasant society, and which tends to mimic the modernization thesis which Thompson was at such pains to dispute. Thus he tends to concentrate on the enhancement of clock time, Puritan discipline and bourgeois exactitude to the exclusion of other times. His interventions on gender are few and far between. He makes little of spatial variations or the more general role of space. His emphasis on discontinuity is limited and, in particular, he makes little play of commercial practices. Finally, his division of past, present and future is cursory. In other words, there seems to be a case for a more general recasting of Thompson's work, and this paper has tried to supply the beginnings of an alternative account.

It is clear that new accounts of times need to be multidimensional, complex and nuanced. They will accordingly involve histories of the impact of temporal channels upon culture systems, addressing the complex links among ideologies and technologies. Several research areas now demand attention, of which we wish to highlight three. One is the analysis of temporal competence in a much broader sense than is usually construed. For example, the temporal coupling of everyday activities amounts to a 'second-order' bodily time-discipline, which may often be only tangentially related to the metric of the clock. By focusing much attention on clock time, a misleadingly precise, 'un-fuzzy' impression of 'what people were doing' is given. The existence of formal rules of clock time conduct (à la Thompson) *may* create new categories of experience, but equally they may build upon, and be captured by, older categories. A second area is empirical research into the interfaces among various timing traditions in

societies that employ timekeeping to varying degrees in varying contexts. The social scope of particular skills of timing may form a significant element of cultural differentiation. For example, crucial strategic roles may emerge for certain people or groups as mediators of temporal skills for a wider population. And a third area is the consideration of the uses of timekeeping in individual lives. For example, timekeeping impinged upon the domestic lives of 18th-century English women in a variety of ways. For gentry women, the social round and the organization and discipline attaching to country-house house-keeping were major conduits of timing, whereas these were lacking for middling and labouring class women. But the latter were caught up in other elements of everyday temporal structuring, around trading and domestic activities within their own households or those of their employers. However, the explicit orientation of upper-class time-competencies towards clock times encouraged an 'othering' of the time-competences of middling and labouring people, which ought not to be reproduced by historians.

To summarize: we want to preserve Thompson's critical focus on time as a kind of technology for ordering and disciplining society, but in a rather different form. Thus, we need to examine the specificity and range of power relations which constitute (and are constituted by) practices about time; and to distinguish various dimensions of temporal discipline and the variety of their interactions, discussed in Section 3. In the process we leave behind the simple and sometimes glib ideas of linear progression from untimed to timed cultures, via intermediate stages in which the untimed and the timed *coexisted*, with the inexorable undermining of the former as a singular modern 'industrial time-consciousness' through society and across space. Our alternative account is rather about the degree and type of *interaction* and mutual construction among several coexisting time-senses.

We can draw a parallel here between histories of time and slightly earlier developments in histories of literacy. The latter, for example, attend to the analysis of literacy, like time-competence, as a social technology; and problematize what Goody termed *The Interface Between the Written and the Oral* (1987). Drawing on examples within that literature, we can suggest the concept of 'quasi-temporal cultures', as societies involving various temporal channels; various subcultures with different temporal discourses and different means of employing and interpreting them in different contexts; and the uneven meeting of these subcultures in particular places and contexts of power.

This is not to deny, of course, that our technological ability to manipulate time by recording and storing information, and through instantaneous contact via telecommunications, is particular to contemporary society (Urry, 1994). But it is to claim that earlier cultures were also temporally complex in their own ways, and some of these ways have been lost to us today. Such cultures were not simply way-stations on a 'march to modern time-competence'. In turn, the study

of other temporal cultures, both past and present, offers clues to ways in which time and temporality are now being understood (e.g. Ingold, 1995). These developments seem particularly appropriate and timely as we move away from, rather than towards, the hiatus of a synchronized Modernity which (in more senses than one) is the end-point of Thompson's paper.

Notes

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- This different assessment diverges from Thompson in taking a broad view of 'temporal development'. While we do not wish to denigrate Thompson's general arguments against 'the enormous condescension of posterity' (Thompson, 1963: 13), it nevertheless seems to us that his narrow definition of what counts as temporal development does involve him in a degree of condescension towards the complexities of past senses of time.
- 2. For discussion of the reception of Thompson's paper among historians see Glennie and Thrift (forthcoming).
- 3. To take just one instance of different structurings of time among industrial countries rather than others: 'in New Zealand until recently, shops did not open on Saturday or Sunday, much of the industrial labour force worked a set five-day week and the weekend was mainly spent in the home with one's family. Two factors that appear to have produced such a zoning were the considerable strength of the labour movement to prevent the temporal flexibilisation of the labour force and the power of the churches to protect the sanctity of the weekend (that is, the family) from commercialisation' (Urry, 1991: 167–8).
- 4. All in all, the literature has moved a very long way from early treatments of the experiential aspects of time and social life in terms of time budgeting.

References

- Adam, B. (1990) Time and Social Theory. Cambridge: Polity Press.
- Adam, B. (1993) 'Within and Beyond the Time Economy of Employment Relations Conceptual Issues Pertinent to Research on Time and Work', Social Science Information 32: 163–84.
- Adam, B. (1994) 'Beyond Boundaries: Reconceptualizing Time in the Face of Global Challenges', *Social Science Information* 33: 597–620.
- Adam, B. (1995) Timewatch: The Social Analysis of Time. Cambridge: Polity Press.
- Allan, S. (1994) "When Discourse is Torn from Reality": Bakhtin and the Principle of Chronotopicity', *Time & Society* 3: 193–218.
- Aminzade, R. (1992) 'Historical Sociology and Time', Sociological Methods & Research 20: 456–80.
- Barry, J. (1995) 'Literacy and Literature in Popular Culture: Reading and Writing in Historical Perspective', in T. Harris (ed.) *Popular Culture in England, c. 1500–1850*, pp. 69–94. London: Macmillan.

- Bartky, I. R. (1989) 'The Adoption of Standard Time', *Technology and Culture* 30: 25-56.
- Baulant, M., Schurmann, A. J. and Servais, P. (eds) (1988) 'Inventaires après-decès et vente de meubles: Apports à une histoire de la vie économique et quotidienne (XIVe-XIXe siècle)', Actes du seminaire tenu dans le cadre du 9ème Congrès International d'Histoire Economique de Berne (1986). Louvain-la-Neuve: Academia.
- Beck, U. (1992) Risk Society: Towards A New Modernity. London: Sage.
- Bedoucha, G. (1993) 'The Watch and the Waterclock: Technological Choices/Social Choices', in P. Lemonnier (ed.) *Technological Choices: Transformation in Material Cultures since the Neolithic*, pp. 77–107. London: Routledge.
- Bender, J. and Wellbery, D. E. (eds) (1991) Chronotypes: The Construction of Time. Stanford, CA: Stanford University Press.
- Bloch, M. (1977) Feudal Society. London: Routledge.
- Borsay (1989) The English Urban Renaissance: Culture and Society in the Provincial Town, 1660-1770. Oxford: Oxford University Press.
- Bourdieu, P. (1987) Distinction: A Social Critique of the Judgement of Taste. London: Routledge & Kegan Paul.
- Burgess, C. (1987) A Service for the Dead: The Form and Function of the Anniversary in Late-Medieval Bristol', *Transactions of the Bristol and Gloucestershire Archaeological Society* 105: 183–211.
- Castoriadis, C. (1991) 'Time and Creation', in J. Bender and D. E. Wellbery (eds) *Chronotypes: The Construction of Time*, pp. 38-64. Stanford, CA: Stanford University Press.
- Clark, G. (1991) 'Labour Productivity in English Agriculture, 1300–1860', in B.M.S. Campbell and M. Overton (eds) Land, Labour and Livestock: Historical Studies in European Agriculture Productivity, pp. 211–35. Manchester: Manchester University Press.
- Cohen, P. C. (1982) Calculating People: The Spread of Numeracy in Early America. Chicago: The University of Chicago Press.
- Cohen, P. C. (1993) 'Reckoning with Commerce: Numeracy in Eighteenth-century America', in J. Brewer and R. Porter (eds) *Consumption and the World of Goods*, pp. 320–34. London: Routledge.
- Collinson, P. (1988) The Birthpangs of Protestant England. Basingstoke: Macmillan.
- Coss, P. R. (1986) *The Early Records of Medieval Coventry*. Oxford: British Academy/ Oxford University Press.
- Cressy, D. (1989) Bonfires and Bells: National Memory and the Protestant Calendar in Elizabethan and Stuart England. London: Weidenfeld & Nicolson.
- Cressy, D. (1992) 'The Fifth of November Remembered', in R. Porter (ed.) *The Myths of the English*. Cambridge: Polity Press.
- Cressy, D. (1993) 'Literacy in Context: Meaning and Measurement in Early Modern England', in J. Brewer and R. Porter (eds) *Consumption and the World of Goods*, pp. 305–19. London: Routledge.
- Davies, K. (1989) Women and Time: Weaving the Strands of Everyday Life. Lund: University of Lund Department of Sociology.
- Davies, K. (1994) 'The Tensions Between Process Time and Clock Time in Care-work: The Example of Day Nurseries', *Time & Society* 3: 277–304.
- Davison, G. (1992) 'Punctuality and Progress: The Foundations of Australian Standard Time', *Australian Historical Studies* 25: 169–91.

- De Certeau, M. (1984) *The Practice of Everyday Life*. Berkeley: University of California Press.
- Derrida, J. (1981) Dissemination. Chicago: The University of Chicago Press.
- Derrida, J. (1992) Given Time: 1. Counterfeit Money. Chicago: The University of Chicago Press.
- De Vries, J. (1981) 'Peasant Demand Patterns and Economic Development: Friesland 1550–1750', in W. N. Parker and E. L. Jones (eds) *European Peasants and Their Markets: Essays in Agrarian Economic History*, pp. 205–66. Princeton, NJ: Princeton University Press.
- De Vries, J. (1993) 'Between Consumption and the World of Goods', in J. Brewer and R. Porter (eds) *Consumption and the World of Goods*, pp. 85–132. London: Routledge.
- De Vries, J. (1994) 'The Industrial Revolution and the Industrious Revolution', *Journal of Economic History* 54(2): 249–70.
- Driver, F. (1993) Power and Pauperism: The Workhouse System, 1834–1884. Cambridge: Cambridge University Press.
- Duffy, E. (1992) The Stripping of the Altars: Traditional Religion in England, c.1400–c.1580. New Haven, CT: Yale University Press.
- Elias, N. (1984/1992) Time: An Essay. Oxford: Blackwell.
- Fabian, J. (1993) Time and the Work of Anthropology: Critical Essays, 1971–1991. Chur: Harwood Academic.
- Fentress, J. and Wickham, C. (1992) Social Memory. Oxford: Blackwell.
- Flinn, M. W. and Smout, C. (eds) (1974) Essays in Social History. Oxford: Clarendon Press.
- Forman, F. J. (1989) 'Feminising Time: An Introduction', in F. J. Forman and C. Sowton (eds) *Taking Our Time: Feminist Perspectives on Temporality*, pp. 1–9. Oxford: Pergamon.
- Foster, J. and Woolfson, C. (1989) 'Corporate Reconstruction and Business Unionism: The Lessons of Caterpillar and Ford', *New Left Review* 174: 51–66.
- Foucault, M. (1973) The Birth of the Clinic. London: Tavistock Publications.
- Frankenberg, R. (1994) 'The Politics of Time [Review]', Time & Society 3: 117–28.
- Freake, D. (1995) 'The Semiotics of Wristwatches', Time & Society 4: 67–90.
- Gell, A. (1992) The Anthropology of Time: Cultural Constructions of Temporal Maps and Images. Oxford: Berg.
- Gertler, M. (1988) 'The Limits to Flexibility: Comments on the Post-Fordist Vision of Production and its Geography', *Transactions of the Institute of British Geographers*, new series 13: 419–32.
- Giddens, A. (1979) Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis. London: Macmillan.
- Giddens, A. (1984) The Constitution of Society. Cambridge: Polity Press.
- Ginzburg, C. (1980) Cheese and the Worms: The Cosmos of a Sixteenth-Century Miller. London: Routledge & Kegan Paul.
- Glennie, P. D. (1990) 'Industry and Towns 1500–1730,' in R. A. Dodgshon and R. A. Butlin (eds) *Historical Geography of England and Wales*, 2nd edn, pp. 199–222. London: Academic Press.
- Glennie, P. D. (1995) 'Consumption in Historical Studies,' in D. Miller (ed.) Acknowledging Consumption: A Review of New Studies, pp. 164–203. London: Routledge.
- Glennie, P. D. and Thrift, N. J. (forthcoming) 'Time Standing Still? Comments on a

- Chapter Missing from E. P. Thompson's *Customs in Common*' (pre-publication copies available from the authors).
- Goody, J. (1987) *The Interface Between the Written and the Oral.* Cambridge: Cambridge University Press.
- Goody, J. (1991) 'The Time of Telling and the Telling of Time in Written and Oral Cultures', in J. Bender and D. E. Wellbery (eds) *Chronotypes: The Construction of Time*, pp. 77–96. Stanford, CA: Stanford University Press.
- Gosden, C. (1994) Social Being and Time. Oxford: Blackwell.
- Hagerstrand, T. (1970) 'What About People in Regional Science?', Papers of the Regional Science Association 24: 7-21.
- Hagerstrand, T. (1973) 'The Domain of Geography', in R. J. Chorley (ed.) *Directions in Geography*, pp. 67–87. London: Methuen.
- Hagerstrand, T. (1982) 'Diorama, Path and Project', Tijdschrift voor Economische en Sociale Geografie 73: 323–39.
- Hareven, T. K. (1982) Family Time and Industrial Time: The Relationship Between the Family and Work in a New England Industrial Community. Cambridge: Cambridge University Press.
- Hareven, T. K. (1991) 'Synchronizing Individual Time, Family Time and Historical Time', in J. Bender and D. E. Wellbery (eds) *Chronotypes: The Construction of Time*, pp. 167–82. Stanford, CA: Stanford University Press.
- Harrison, M. (1986) 'The Ordering of the Environment: Time Work and the Occurrence of Crowds 1790–1835', *Past and Present* 110: 134–68.
- Harvey, B. F. (1993) Living and Dying in England 1100-1540: The Monastic Experience. Oxford: Clarendon Press.
- Harvey, D. (1989) The Condition of Postmodernity. Oxford: Blackwell.
- History and Theory (1992) Vol. 31: Special Issue on History and Feminist Theory, ed. A. L. Shapiro.
- Holmes, K. (1994) 'Making Time Representations of Temporality in Australian Women's Diaries of the 1920s and 1930s', *Australian Historical Studies* 26(102): 1–18.
- Hopkins, E. (1982) 'Working Hours and Conditions During the Industrial Revolution A Reappraisal', *Economic History Review* 35(1): 52–66.
- Howell, S. (1992) 'Time Past, Time Present, Time Future: Contrasting Temporal Values in Two Southern Asian Societies', in S. Wallman (ed.) *Contemporary Futures: Perspectives from Social Anthropology*, pp. 124–37. London: Routledge.
- Hutton, R. (1994) The Rise and Fall of Merry England: The Ritual Year 1400–1700. Oxford: Oxford University Press.
- Ingold, T. (1993) 'The Temporality of the Landscape', World Archaeology 25(2): 152–74.
- Ingold, T. (1995) 'Work, Time and Industry', Time & Society 4(1): 5-28.
- Ingram, M. (1995) 'From Reformation to Toleration: Popular Religious Cultures in England, 1540–1690', in T. Harris (ed.) *Popular Culture in England, c. 1500–1850*, pp. 95–123. London: Macmillan.
- Johnson, C. (1993) History and Writing in the Philosophy of Jacques Derrida. Cambridge: Cambridge University Press.
- Kahn, R. P. (1989) 'Women and Time in Childbirth and During Lactation', in F. J. Forman and C. Sowton (eds) *Taking Our Time: Feminist Perspectives on Temporality*, pp. 20–36. Oxford: Pergamon.

- Knights, D. and Vurdukakis, T. (1993) 'Calculations of Risk: Towards an Understanding of Insurance as a Moral and Political Technology', *Accounting, Organisation and Society* 18: 729–64.
- Kristeva, J. (1981) 'Women's Time', Signs 7: 13-35.
- Landes, D. S. (1983) Revolution in Time: Clocks and the Making of the Modern World. Cambridge, MA: Belknap Press (Harvard University Press).
- Lash, S. and Urry, J. (1993) Economies of Signs and Spaces. London: Sage.
- Leccardi, C. and Rampazi, M. (1993) 'Past and Future in Young Women's Experience of Time', *Time & Society* 2: 353–79.
- Le Goff, J. (1980) Time, Work and Culture in the Middle Ages. Chicago: The University of Chicago Press.
- Le Goff, J. (1984) The Birth of Purgatory. London: Scolar Press.
- Le Goff, J. (1988a) *The Medieval Imagination*. Chicago: The University of Chicago Press.
- Le Goff, J. (1988b) Your Money or Your Life: Economy and Religion in the Middle Ages. New York: Zone Books.
- Lloyd, G. (1992) Time and Being. London: Routledge.
- Loomes, B. (1982) Directory of British Clockmakers Before 1750. London: N.A.G. Press.
- Lowe, P. M. (1982) *History of Bourgeois Perceptions*. Chicago: The University of Chicago Press.
- Luckmann, T. (1991) 'The Constitution of Human Life in Time', in J. Bender and D. E. Wellbery (eds) *Chronotypes: The Construction of Time*, pp. 151–66. Stanford, CA: Stanford University Press.
- McCann, J. (ed.) (1952) The Rule of St Benedict. London: Burns, Bates & Washbourne.
- Macey, S. L. (ed.) (1994) Encyclopaedia of Time. New York: Garland Reference Library of Social Science.
- Malcolmson, R. (1973) *Popular Recreations in English Society 1700–1850*. Cambridge: Cambridge University Press.
- Munn, N. D. (1992) 'The Cultural Anthropology of Time A Critical Essay', *Annual Review of Anthropology* 21: 93–123.
- O'Malley, M. (1990) Keeping Watch: A History of American Time. New York: Viking Penguin.
- O'Malley, M. (1992) 'Time, Work and Task Orientation: A Critique of American Historiography', *Time & Society* 1: 341–58.
- Parkes, D. N. and Thrift, N. J. (1979) Times, Spaces, Places: A Chronogeographic Perspective. Chichester: John Wiley.
- Patterson, G. (1990) History and Communications: Harold Innis Marshall McLuhan and the Interpretation of History. Toronto: University of Toronto Press.
- Pawson, E. (1992) 'Local-times and Standard Time in New Zealand', Journal of Historical Geography 18(3): 278-87.
- Pickford, C. (1991) Bedfordshire Clock and Watchmakers 1352–1880: A Biographical Dictionary with Selected Documents. Bedfordshire Historical Record Society, Bedford.
- Reid, D. A. (1982) 'Interpreting the Festival Calendar: Wakes and Fairs as Carnivals', in R. Storch (ed.) *Popular Culture and Custom in Nineteenth-Century Britain*, pp. 125–53. London: Croom Helm.
- Rule, J. (1994) 'Saturday Night and Sunday Morning' (Inaugural Lecture). University of

- Southampton, Southampton.
- Rutz, H. J. (ed.) (1992) *The Politics of Time*. American Anthropological Association/ American Ethnological Society Monograph no. 4, Washington, DC.
- Rybczynski, W. (1991) Waiting for the Weekend. New York: Viking.
- Schivelbusch, W. (1986) *The Railway Journey*. Berkeley: University of California Press. Shaw, J. (1994) 'Punctuality and the Everyday Ethics of Time: Some Evidence from the
- Mass Observation Archive', *Time & Society* 3: 79–98.
- Shimada, S. (1994) "Working Hour, Free Time, Family time" in Japan: Dealing with the Western Conceptions of Time in Japanese Society, Paper presented to 1994 ASSET conference, Dartington.
- Smith, M. M. (1994) 'Counting Clocks, Owning Time: Detailing and Interpreting Clock and Watch Ownership in the American South, 1739–1865', *Time & Society* 3: 321–39.
- Smith, T. (1986) 'Peasant Time and Factory Time in Japan', *Past and Present* 111: 165–97.
- Spufford, M. (1995) 'Literacy Trade and Religion in the Commercial Centres of Europe', in K. Davids and J. Lucassen (eds) A Miracle Mirrored: The Dutch Republic in European Perspective, pp. 229–83. Cambridge: Cambridge University Press.
- Stein, J. (1995) 'Time, Space and Social Discipline: Factory Life in Cornwall, Ontario, 1867–1893', *Journal of Historical Geography* 21: 278–99.
- Stephens, C. (1989) 'The Most Reliable Time: William Bond the New England Railroads and Time Awareness in Nineteenth-Century America', *Technology and Culture* 30: 1–24.
- Street, B. V. (ed.) (1993) Cross-Cultural Approaches to Literacy. Cambridge: Cambridge University Press.
- Tedlock, B. (1992) *Time and the Highland Maya*, revised edn. Albuquerque: University of New Mexico Press.
- Thomas, K. V. (1964) 'Work and Leisure in Pre-industrial Societies', *Past and Present* 29: 50-62.
- Thomas, K. V. (1971) Religion and the Decline of Magic. London: Weidenfeld & Nicolson.
- Thomas, K. V. (1987) 'Numeracy in Early-modern England,' *Transactions of the Royal Historical Society* 5th series, 37: 103–32.
- Thompson, E. P. (1963) *The Making of the English Working Class*. Harmondsworth: Penguin Books.
- Thompson, E. P. (1967) 'Time, Work discipline and Industrial Capitalism', *Past and Present* 38: 56–97.
- Thompson, E. P. (1991) Customs in Common. London: Merlin Press.
- Thrift, N. J. (1977) 'Time and Theory in Human Geography', *Progress in Human Geography* 1: 65-101.
- Thrift, N. J. (1981) 'Owner's Time and Own Time: The Making of A Capitalist Time Consciousness 1300–1800', in A. R. Pred (ed.) *Space and Time in Geography: Essays Dedicated to Torsten Hagerstrand*, pp. 56–84. Lund: Gleerup Studies in Geography.
- Thrift, N. J. (1988) "Vivos Voco": Ringing the Changes in the Historical Geography of Time Consciousness, in M. Young and T. Schuller (eds) *The Rhythms of Society*, pp. 53–94. London: Routledge.
- Thrift, N. J. (1990) 'Transport and Communications 1730-1914', in R. A. Dodgshon and

- R. A. Butlin (eds) *Historical Geography of England and Wales*, 2nd edn, pp. 453–86. London: Academic Press.
- Tittler, R. (1991) Architecture and Power: The Town Hall and the English Urban Community, c.1500–1640. Oxford: Clarendon Press.
- Urry, J. (1991) 'Time and Space in Giddens' Social Theory', in C. G. A. Bryant and D. Jary (eds) *Giddens' Theory of Structuration: A Critical Appreciation*, pp. 160–75. London: Routledge.
- Urry, J. (1994) 'Time, Leisure and Social Identity', Time & Society 3(2): 131-50.
- Wallman, S. (ed.) (1992) Contemporary Futures: Perspectives from Social Anthropology. London: Routledge.
- Walsh, L. S., Carr, L. S., Main, G. and Main, J. T. (1988) 'Towards a History of the Standard of Living in British North America', William and Mary Quarterly, 3rd series 45: 116-70.
- Weatherill, L. (1988) Consumer Behaviour and Material Culture in Britain 1660–1760. London: Routledge.
- Wendorff, R. (1980) Zeit und Kultur: Geschichte des Zeitbewusstseins in Europa. Wiesbaden: Westdeutscher Verlag.
- Whipp, R. (1981) "A Time to Every Purpose": An Essay on Time and Work', in P. Joyce (ed.) *The Historical Meanings of Work*, pp. 210–36. Cambridge: Cambridge University Press.
- Wilcox, D. J. (1987) The Measure of Times Past: Pre-Newtonian Chronologies and the Rhetoric of Relative Time. Chicago: The University of Chicago Press.
- Wildenbeest, G. (1988) "Keeping up with the Times": Time and its Rhythms in the Countryside, *Netherlands Journal of Sociology* 24: 134–45.
- Wood, D. (1989) The Deconstruction of Time. Atlantic Highlands: Humanities.
- Wood, D. (1990) Philosophy at the Limit. London: Unwin Hyman.
- Woodward, D. (1995) Men at Work: Labourers and Building Craftsmen in the Towns of Northern England, 1450–1750. Cambridge: Cambridge University Press.
- Zerubavel, E. (1981) *Hidden Rhythms: Schedules and Calendars in Social Life*. Chicago: The University of Chicago Press.
- Zerubavel, E. (1982) 'The Standardization of Time: A Sociological Perspective', American Journal of Sociology 88: 1–23.

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