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# GEOGRAPHICAL PERSPECTIVES ON TIME

PAUL GLENNIE AND NIGEL THRIFT

The study of time has been a notably inter-disciplinary field over the last 30 years, and both geographers and others have worked on geographical facets of times, timing, temporal structures and time-consciousness. This review will therefore only pay close attention to disciplinary boundaries in the first two of its four sections. In section 1, we situate geographical work on time in the wider field of time studies, and in section 2 we examine two particular areas of geographical work on time, namely time-geography, and time-space compression. But, thereafter, we consider geographical work whether or not it has involved researchers from within geography departments. In section 3 we review five geographical themes within time studies and we then conclude, in section 4, by pointing to important areas for future geographical work, given the current dynamics of time studies.

## CONTEXTS OF GEOGRAPHICAL WORK IN TIME STUDIES

The orientation of geographical work to wider writings on time falls into two main phases. Until the mid-1980s, most geographers worked within established frameworks and were oriented to their elaboration and refinement. The major areas of interest in time were in historical geography and economic geography, testifying to the influence of E. P. Thompson's classic 1967 paper "Time, work-discipline and industrial capitalism", among geographers in many countries.<sup>1</sup> Among geographers with medieval interests, Jacques Le Goff's work on "church time" and "merchants' time" was also influential.<sup>2</sup> That historians' work was so important reflects the comparative lack of conceptual work on time by geographers, with only a few exceptions.

Thompson's core argument connected the restructuring of industrial working habits to changes in peoples' inward notation of time. Greater synchronization of labour and more exact time-routines were not, for Thompson, simple by-products of new manufacturing techniques: they were a cultural transformation

36 ■ in work-ethic and labour-orientation. "Task orientation" (the organization of

time according to the necessity of performing particular tasks, with little attention paid to time in labour) was replaced by "time orientation" (work organized by regular, coordinating time disciplines). New time-disciplines were initially externally-imposed, but became internalized in quite new everyday time-senses among society at large, socialized through the school system, and facilitated by religious time ethics that abhorred time-wasting. Unnatural tyrannies of the clock and timed labour replaced natural, irregular, and humanely comprehensible time. Thompson's account rapidly became authoritative, even axiomatic, for many geographers as a framework for linking changes in time-sense to other dimensions of societal change.<sup>3</sup> What critical work there was tended to be isolated and did not disturb the overall interpretive framework.

Recently, some geographers have moved towards more fundamental reformulations, attempting a theoretical and empirical recasting of histories of time-disciplines, time-competences, and time-consciousness, that differs quite radically from Thompson's original.<sup>4</sup> A crucial change is that social time is no longer conceptualized as a single unitary and absolute system, such as "Modern Time". Instead, social time is seen as intrinsically manifold; as multiple and heterogeneous; as a discontinuous process with its own origins and archaeology.<sup>5</sup>

## SPECIFICALLY GEOGRAPHICAL CONTRIBUTIONS

Geographers have been involved with time as a necessary correlate of space since the 1920s, and the work of the so-called human ecologists.<sup>6</sup> This work, which was often innovative, relied on the notion that time and space were inseparable parts of human activity and should be thought of as resources which societies could use in different ways to different ends. In different ways, the ecological perspective has informed all of the distinctive geographical contributions to the study of time, often without their authors being fully aware of it.

### CHRONOGEOGRAPHY

Chronogeography was an attempt by Parkes and Thrift to extend the human ecological paradigm.<sup>7</sup> In line with that paradigm, it was stimulated by essentially biological analogies of two kinds. The first was a heavy concentration on rhythm. Rhythms were seen as operating at a number of different time-space scales, thereby providing the time-space backbone to different societies. In turn, these rhythms were produced by "Zeitgeber" of various kinds, socio-temporal "lighthouses" ranging from the heartbeat and other chronobiological phenomena at one end of the scale to various kinds of economic cycles (even up to the scale of the Kondratieff wave) at the other end, which produced different kinds ■ 37

of timed spaces and different ways of spacing time. Chronogeography was a phenomenon of the 1970s and early 1980s. By the mid-1980s it lay dormant.

### TIME-GEOGRAPHY

In marked contrast, so-called time-geography has made a sustained and lasting contribution to the geographical literature, notwithstanding considerable debates within geography as to certain of its features. Time-geography emerged as a prominent area of geographical work in the early-1970s, initially in Sweden.<sup>8</sup> It approached the analysis of social interactions by focusing on *time-space paths* of their participants, within temporal and spatial structures of interaction, movement and communications. Time and space are conceived as resources in short supply on which individuals draw to provide "room" in which they can realize *projects*. Time and space are *facilitating* resources in which *collateral processes* can occur. The use of time and space is constrained in three ways: by the power, wealth, skills, and knowledges of individual participants (*capability constraints*); by the conditions or circumstances in which people can interact with one another (*coupling constraints*); and by the power relations that mould people's access to particular spaces, and shape the roles in which they do have access (*authority constraints*). The stress on constraints to the completion of projects provides a series of ways in which the power relations of a society operate through shaping time-space patterns of human activities. Put another way, social institutions are structures through which the time-space coherence of societies can be maintained. They do this either by imposing particular projects or time-space routines within a society, or through internalizing certain projects and routines as "natural" within people's everyday perceptions. The time-geographic patterns of different societies are thus linked to patterns, opportunities and technologies of movement and activities.<sup>9</sup>

Time-geography has met four major problems. First, it was developed largely with reference to small, usually agricultural, communities. It has proved difficult to extend to larger urban systems with much greater transport and communication facilities.<sup>10</sup> Second although intended to disclose constraints in an analytical way, many applications of time geography have remained descriptive and static. Third, time-geography has been reticent in discussing struggle within societies. And, fourth, time-geography has been accused of neglecting the importance of the symbolic dimension.

### TIME-SPACE COMPRESSION

The last distinctive geographical contribution to the study of time has been the concept now known as "time-space compression" which is based on the notion

38 ■ of progressive shrinkage in the resources of time and space. From the 1920s

onwards, geographers became concerned with what Marx called the “annihilation of space by time”, as travel times between locations diminished because of new transport and telecommunications technologies. This was usually seen as an interesting empirical phenomenon until the 1980s, when David Harvey linked the “shrinking globe” to political economy, and to wider processes of spatial extension and intensification within capitalism: “the history of capitalism has been characterized by speed-up in the pace of life, while so overcoming barriers, that the world seems to collapse in upon us”.<sup>11</sup> Ever more intense time-space compression dislocates everyday practices and understandings. Harvey identifies postmodernism as its latest manifestation and, in line with a political economy approach, is particularly keen to associate the latest round of time-space compression with new production paradigms. Thus he linked it to the rise of post-Fordist production systems based on “flexibility”.

## **GEOGRAPHICAL THEMES IN WORK ON TIMES**

### **SPATIAL VARIATIONS IN TEMPORAL STRUCTURES AND TIME-CONSCIOUSNESS**

Predictably, a key area for early geographical work was provided by the simple fact of spatial variations in the time-patterns of life; the institutions and practices that were central to different societies’ handling of times; and how different societies thought of time. Much of this material was derived from the anthropological literature, and especially the work of Evans-Pritchard on “ecological” time. One key geographical concern was the identification of environmental or social factors underlying spatial patterns in times, as patterns of timing became just one among many elements constituting distinct cultures in different types of societies, whether in an environmentalist or political economy framework. A second concern was how these spatial patterns were changing as dominant Western patterns of timing diffused around the world. This last concern clearly lay within the “modernization thesis” of economic and cultural change that dominated the social sciences from the mid-20th century.

Common depictions of people of great temporal innocence, melding religious and farming calendars in cyclical conceptions of time, have not survived close scrutiny, especially once time is conceived more broadly than as the clock time taken-for-granted in the 20th century West. Most obviously, numerous complex and sophisticated calendar arrangements have long existed: “just because people have no access to sophisticated time-reckoning instruments [...] does not mean that they are unsophisticated about time”.<sup>12</sup>

The complexity and variety of traditional and non-Western views of time is now ■ 39



virtually axiomatic. Traditional cultures in general were not caught up in unchanging, nature-based and cyclical ideas of time; were not unable to conceive a linear time; were not lacking any sense of their own past; were not imprisoned by tense-less languages and a reliance on oral cultural transmission.<sup>13</sup> Rather, the temporal values present in different traditional cultures display an incorrigible diversity, exhibiting greater or lesser concern with the passage of time.<sup>14</sup> A greater sensitivity to aural and olfactory registers of temporal awareness, besides the visual, forms part of this richness.<sup>15</sup>

### **MULTIPLE TIMES AND SPACES**

Geographers were also among writers highlighting the co-existence of differing time-senses among social or ethnic sub-groups within populations, linked to work on similar differences in senses of space and place. Initially approached through statistical exploration of "mental maps", later work has been much less instrumental in orientation, and more ethnographic in execution.

Everyday experiences of time are structured by many channels besides the religion, trade, and industrialization emphasized by Le Goff and Thompson.<sup>16</sup> General or specific notions of timing and coordination arise also within households; from structures of pre-industrialized work; from communications; from civic administration and law; from recreation and consumption; from disciplinary regimes such as prisons, workhouses, and hospitals; from cartography and navigation; and from the military.<sup>17</sup>

Although most of these arise among relatively specialized temporal communities, it is essential to acknowledge that they co-existed in places, especially in towns, where "the institutions of government, church, trade and industry were most likely to come together, increasingly acting to impose artificial schedules on a population which then began to talk about these schedules as a natural occurrence".<sup>18</sup> A geographical focus on times in places, rather than time in particular occupations, can hardly avoid drawing attention to the "spillovers" of temporal practices within urban populations. In other words, temporal frameworks are only rarely the preserve of a single community of expertise, and everyday temporal orderings are commonly hybrids of several ordering frameworks, each arising among particular sub-groups.

The point that any given place or space could exist in multiple temporal forms for different social sub-groups is rarely more clearly evident than for women. For a long time, women's times were not taken seriously by geographers who drew on implicitly male social features such as capitalism and religion. Recent work has begun to remedy the neglect of everyday time practices relating to women, but the general area of women's times and spaces cannot be said to be

Finally, issues of multiple timed spaces have been approached through studies of the time structures of migrant communities, especially where temporal practices were central to migrant identities. This field too is under-researched, especially in regard to mutual interactions between host and migrant communities. The opportunities in this area are illustrated by work on time practices among different British migrant streams into north America, and their subsequent history, and on Jewish migrants to the late-19th century United States.<sup>20</sup>

### THE NON-CONVERGENCE OF DIFFERENT TIMED SPACES

Perhaps unsurprisingly in the light of our comments above, historians of time began with ideas of a linear progression from timeless to highly co-ordinated cultures, through a series of intermediate stages, with "industrial time consciousness" diffusing through society and across space. But it is now clear that spatial differences in sense of time were not being obliterated. Notwithstanding considerable homogenization of industrial production techniques and of temporal frameworks (such as the geographical spread of Greenwich Mean Time),<sup>21</sup> there was clear evidence of international and inter-regional differences in temporal frameworks and their interpretations.<sup>22</sup>

In turn, this realization made it possible to revalue time derived from "natural" cues and to understand that senses of time derived from nature were often associated with impulses to disciplined and unstinting work, and hence attention to saving time.<sup>23</sup> Indeed, Japanese peasants were able to make a smooth transition to factory labour because of their attitude to time.<sup>24</sup> Again, it also became clear that industrial time consciousness was itself a heterogeneous creature, with very different cues and practices instituted in different places as a result of long and complex histories.

Thus, the idea that the geography of time was a history of the long march of linear time senses has been replaced by a more nuanced account which recognizes difference as constitutive and not just incidental. For example, work on the spread of Great Exhibitions in the 19th and early 20th century which had been interpreted as univocal instances of the spread of western ideas of the construction and display of time, have been replaced by accounts which stress the essentially contested nature of these events.<sup>25</sup>

### TIMING IN RELATION TO TRAVEL AND COMMUNICATIONS

A large volume of work has addressed several dimensions of time in relation to movements of people, objects, and information. The mobility of people, objects, finance, and information have many effects on time measurement and temporal practices, usually involving both practical questions of coordination (such as the implementation of regular timetables and calendars for specific purposes), ■ 41

but also new techniques of time-calculation (interest, risk costs, and so on), and new conventions of everyday life. We mention five topics here.

First, new temporal practices are often associated with long-distance trade, including various means for deferred payments and futures trading.<sup>26</sup> Second, temporal precision has been central to knowledge of spatial positions at sea and on land, especially in calculating longitude.<sup>27</sup> Third, the close dependence of administration, as well as business, on efficient handling of information over time, and (relatively) rapid communication across space, has formed an important theme in historical geographies of European world dominance.<sup>28</sup> The emergence of standard times and time zones, and the impact of electronic communications, have also received particular attention.<sup>29</sup> A fourth focus has been how temporal cues flow from one timed space to others. The obvious instance here is clock time, although even this is taken note of and reacted to differently in different timed spaces.<sup>30</sup> Fifth, time has been studied in relation to tourism, where both the coordinated movement of people, and the specific character of "tourist experience" itself, rest on particular ways of handling, and of representing, time(s).<sup>31</sup> Representations of time are also central to other widespread activities associated with heritage industries and the increasingly diverse museum world.<sup>32</sup>

#### TEMPORAL SYMBOLISM AS CONSTITUTIVE OF TIME-SENSES

Since at least the work of Evans-Pritchard, and Mauss, the inherently cultural character of any time keeping system has become a commonplace observation. Since geography underwent a cultural turn in the 1980s, it is no surprise that the cultural character of time-keeping systems has become a focus of research. This research has followed three main avenues of investigation. First, what counts as a "task" is very much a matter of cultural values. Industrial geographers have shown how a task varies from place to place in how it is constructed and valued.<sup>33</sup> Second, there has been work on disputed interpretations and meanings of time, demonstrating the heavily symbolic character of time. Such work includes contemporary and historical studies of strikes during restructurings of domestic and factory industries.<sup>34</sup> Parallel work considers political disparities around timing linked to cultural national identities, especially where this involved disputes over calendars.<sup>35</sup> Third, work considering language as language-in-use necessarily incorporates a temporal perspective.<sup>36</sup>

In each of these different themes, tendencies towards totalization have been discarded in favour of more complex and differentiated views, seeing societies as made up of diverse institutions (with different fields of effectivity), people (who may have multiple membership of institutions, so that institutional influ-



and people are mutually constituted. Nearly every society (considered now as a multiplicity of different social groups and agendas) has or has had a sophisticated sense of time but that this sophistication has not been appreciated both, because it is "out of category", to use a term from Mary Douglas, with our own notion of what constitutes temporal sophistication and accuracy, and because the situatedness of times have been downplayed.

## CONCLUSIONS: GEOGRAPHY IN THE RECASTING OF WORK ON TIME

We want to conclude this paper by pointing to some key areas of current work which suggest some of the themes that might constitute a research agenda for future geographical work on times. We will concentrate on only four of these areas, out of many, because they seem to us to point to general lacunae in work on time.

The first of these consists of work on time consciousness as what Law has called an "ideology of everyday time practice"; what he defines as "the mediated imposition of a particular set of practices upon a population which in turn affects the way a population makes accounts of practice".<sup>37</sup> Much here echoes Thompson's approach, but it is pursued rather differently, with shifts in ideologies of everyday time practice and the consciousness of time indexed through the three dimensions of discourses and texts; devices and instruments; and, disciplines and routines. Each of these dimensions is strongly geographical. The effectiveness of temporal discourses is limited by the spatially uneven availability of texts and devices, and by variations among temporal communities, which in turn shape systems of discipline and meaning that reinforced or undermined particular temporal conceptions and practices.<sup>38</sup>

The second area of work consists of work on instantaneity. Writers like Harvey and Virilio have discussed the supposed effects of the increasing swiftness of many social practices, but none of this writing stems from any detailed ethnographic research. It is all assumptions – usually based in technological determinisms – masquerading as theory. Thus, we know remarkably little about the practices that have sprung up which have refigured the world as "fast" and which are to be acted out as such. These practices are very diverse, and range all the way from different forms of visualization (such as Schivelbusch's "panoramic gaze" and Urry's "tourist gaze"),<sup>39</sup> through different forms of economic practice including those to do with international finance which have involved the judicious and evolving use of different forms of telecommunication stretching over the last 150 years, to different forms of warfare, including Virilio's "chronopolitics".<sup>40</sup> ■ 43

The third area of work consists of research on different types of timed spaces. Scattered through society are spaces which work at different times, according to different cues. "The times of human action can be clustered or dispersed: action leading from one to another may take place in the same spot or be spread widely across the landscape."<sup>41</sup> As noted above, we know a considerable amount about some timed spaces, especially those concerned with work and certain kinds of leisure. About others we know remarkably little, for example, the times of domestic spaces of the home are still largely opaque.<sup>42</sup>

The fourth area of work consists of temporal policy. Since Kevin Lynch's "What Time is this Place?" geographers have been interested in practices of temporal planning that they might lay alongside those of spatial planning.<sup>43</sup> Now various experiments in countries like Italy and Germany are starting to give these practices real expression. For example, six Italian cities have passed statutes providing temporal planning in matters such as the staggering of work and school hours so as to smooth traffic peaks. These may be minor interventions, but they begin to show what might be possible.

In conclusion, over the last 20 years, the study of time has been a continuing element of research in geography. Interest has waxed and waned but it has always been present. Now the study of time is quite clearly becoming an important part of geography's future.

#### Notes

- 1 E. P. Thompson, "Time, work discipline and industrial capitalism", *Past & Present* 38 (1967), 56–97; K. Thomas, "Work and leisure in pre-industrial society", *Past and Present* 29 (1964), 50–62.
- 2 J. Le Goff, *Time, Work and Culture in the Middle Ages*, Chicago 1980.
- 3 For example, N. Thrift, "Owner's time and own time: the making of a capitalist time consciousness 1300–1880", in A. Pred (ed.), *Space and Time in Geography. Essays for Torsten Hagerstrand*, London 1981, 56–84, reprinted in J. Hassard (ed.), *The Sociology of Time*, London 1990, 105–129, and in J. Agnew et al. (ed.), *Human Geography. An Essential Anthology*, Oxford 1996, 552–570; D. Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*, Oxford 1989.
- 4 P. Glennie, N. Thrift, "Reworking E. P. Thompson's 'Time, work discipline and industrial capitalism'", *Time and Society* 5 (1996), 275–299; N. Thrift, "Vivos Voco. Ringing the Changes in the Historical Geography of Time Consciousness", in M. Young and T. Schuller (ed.), *The Rhythms of Society*, London 1988, 53–94 (a revised version appears in N. Thrift, *Spatial Formations*, London 1996, 169–212); P. Glennie, N. Thrift, "Time standing still? Comments on a chapter missing from E. P. Thompson's 'Customs in Common'" (forthcoming); P. Glennie, N. Thrift, "Historical dimensions of temporal competence and sophistication" (forthcoming); P. Glennie, N. Thrift, "The values of temporal precision" (forthcoming).
- 5 J. Bender, D. Wellbery (ed.), *Chronotypes: The Construction of Time*, Stanford 1991.

- 6 Reviewed in N. Thrift, "Time and theory in human geography", *Progress in Human Geography* 1 (1977), 65–101 (part 1) and 415–457 (part 2).
- 7 D. Parkes, N. Thrift, "Timing space and spacing time", *Environment and Planning A* 7 (1975), 651–670; D. Parkes, N. Thrift, "Time, spacemakers and entrainment", *Transactions of the Institute of British Geographers* n. s. 4 (1979), 353–372; D. Parkes, N. Thrift, *Times, Spaces, Places: A Chronogeographic Perspective*, Chichester 1980.
- 8 T. Hagerstrand, "Diorama, path and project", *Tijdschrift voor Economische en Sociale Geografie* 73 (1982), 323–356; T. Carlstein, D. Parkes, N. Thrift (ed.), *Timing Space and Spacing Time*, London 1978, 3 vol.; D. Parkes, N. Thrift, *Times, Spaces, Places*; A. Pred, "Social reproduction and the time-geography of everyday life", *Geografiska Annaler B* 63 (1981), 5–22; A. Pred, *Place, Practice and Structure: Space and Society in Southern Sweden 1750–1850*, Cambridge 1986.
- 9 A. Giddens, *The Constitution of Society*, Cambridge 1984; G. Hoppe, J. Langton, "Time geography and economic development", *Geografiska Annaler B* 68 (1988), 115–137; D. Gregory, "Presences and absences: time-space relations and structuration theory", in D. Held, J. Thompson (ed.), *Social Theory of Modern Societies: Antony Giddens and his Critics*, Cambridge 1989; J. Urry, "Time and Space in Giddens' Social Theory", in C. Bryant, D. Jary (ed.), *Giddens' Theory of Structuration: A Critical Appreciation*, London 1991, 160–175.
- 10 Although see T. Carlstein, *Time, Resources, Society, Ecology*, London 1982.
- 11 D. Harvey, *The Condition of Postmodernity*, 29; D. Harvey, "Between space and time: reflections on the geographical imagination", *Annals of the Association of American Geographers* 80 (1990), 418–434.
- 12 N. Thrift, *Spatial Formations*, 210.
- 13 A. Gell, *The Anthropology of Time: Cultural Constructions of Temporal Maps and Images*, Oxford 1992; S. Wallman (ed.), *Contemporary Futures: Perspectives from Social Anthropology*, London 1992; J. Goody, "The Time of Telling and the Telling of Time in Written and Oral Cultures", in J. Bender, D. E. Wellbery (ed.), *Chronotypes: The Construction of Time*, Stanford 1991, 77–96.
- 14 A. Gell, *The Anthropology of Time*; S. Howell, "Time Past, Time Present, Time Future: Contrasting Temporal Values in Two Southern Asian Societies", in S. Wallman (ed.), *Contemporary Futures*, 124–137.
- 15 S. Bedini, *The Trail of Time: Time Measurement with Incense Clocks*, Cambridge 1992; G. Dohrn-van Rossum, *The History of the Hour: Clocks and Modern Temporal Orders*, Chicago 1996.
- 16 D. Landes, *Revolution in Time: Clocks and the Making of the Modern World*, Cambridge MA 1983; N. Elias, *Time: An Essay*, Oxford 1992.
- 17 On household times: T. Hareven, *Family Time and Industrial Time: The Relationship Between the Family and Work in a New England Industrial Community*, Cambridge 1982. On pre-industrial work and consumption: J. de Vries, "The industrial revolution and the industrious revolution", *Journal of Economic History* 54 (1994), 249–270. On communications: S. Kern, *The Culture of Time and Space, 1880–1918*, Cambridge MA 1982. On navigation and longitude: J. Law, "On the methods of long distance control: vessels, navigation and the Portuguese route to India", in J. Law (ed.), *Power, Action and Belief. A New Sociology of Knowledge?*, London 1986, 234–263; W. Andrewes (ed.), *The Quest for Longitude*, Cambridge MA 1996; D. Sobel, *Longitude*, New York 1995. On the military: G. Parker, *The Military Revolution: Military Innovation and the Rise of the West*, Cambridge 1988.
- 18 N. Thrift, *Spatial Formations*, 210.
- 19 F. Forman, "Feminising Time: An Introduction", in F. Forman, C. Sowton (ed.), *Taking Our Time: Feminist Perspectives on Temporality*, Oxford 1989, 1–9; K. Davies, *Women and Time: Weaving the Strands of Everyday Life*, Lund, 1989; A. McLintock, *Imperial*

- Leather*, London 1995; G. Valentine, "The geography of womens' fear", *Area* 21 (1989), 385–390.
- 20 D. Fischer, *Albion's Seed: Four British Folkways in America*, Oxford, 1991; P. Cline Cohen, "Reckoning with commerce: numeracy in eighteenth-century America", in J. Brewer, R. Porter (ed.), *Consumption and the World of Goods*, London 1993, 320–334; A. Heinze, *Adapting to Abundance*, New York 1990.
  - 21 N. Thrift, "Owner's time and own time"; E. Pawson, "Local times and standard time in New Zealand", *Journal of Historical Geography* 18 (1992), 278–287.
  - 22 J. Agnew, "Time into space: the myth of backward Italy in modern Europe", *Time and Society* 5 (1996), 27–45.
  - 23 T. Smith, "Peasant time and factory time in Japan", *Past and Present* 111 (1986), 165–97; M. O'Malley, "Time, work and task orientation: a critique of American historiography", *Time and Society* 1 (1992), 341–358; S. Shimada, "Working hours, free time and family time in Japan: dealing with Western conceptions of time in Japanese society", paper given at 1994 ASSET conference, Dartington, U. K.
  - 24 T. Smith, "Peasant time and factory time".
  - 25 A. Pred, *Re-cognising Modernity*, London 1996.
  - 26 J. Le Goff, *Time, Work and Culture*.
  - 27 W. Andrewes (ed.), *The Quest for Longitude*; D. Sobel, *Longitude*.
  - 28 P. Huggill, *World Trade Since 1431: Geography, Technology and Capitalism*, Baltimore 1993.
  - 29 N. Thrift, "Owner's time and own time"; G. Davison, "Punctuality and progress: the foundations of Australian standard time", *Australian Historical Studies* 25 (1992), 169–191; E. Pawson, "Local times and standard time in New Zealand"; S. Kern, *The Culture of Time and Space*.
  - 30 P. Glennie, "Church clocks and public time in medieval and early-modern England", (forthcoming).
  - 31 J. Urry, *The Tourist Gaze*, London 1990.
  - 32 M. Crang, "Spacing times, telling times and narrating the past", *Time and Society* 3 (1994), 29–46.
  - 33 M. Gertler, "Against the convergence thesis" (forthcoming).
  - 34 J. Stein, "Time, space and social discipline: factory life in Cornwall, Ontario, 1867–1893", *Journal of Historical Geography* 21 (1995), 278–299; G. Cross, *A Quest for Time: The Reduction of Work in Britain and France, 1840–1940*, Berkeley 1989.
  - 35 H. Rutz (ed.), *The Politics of Time*, Washington DC 1992; D. Cressy, *Bonfires and Bells: National Memory and the Protestant Calendar in Elizabethan and Stuart England*, London 1989; R. Hutton, *The Rise and Fall of Merry England: The Ritual Year 1400–1700*, Oxford 1994; L. Schmidt, "The commercialization of the calendar: American holidays and the culture of consumption, 1870–1930", *Journal of American History* 78 (1991), 887–916.
  - 36 N. Thrift, *Spatial Formations*.
  - 37 J. Law, "On the methods of long-distance control", 248.
  - 38 T. Schatzki, *Social Practices*, Cambridge 1997.
  - 39 W. Schivelbusch, *The Railway Journey*, Berkeley 1986; J. Urry, *The Tourist Gaze*.
  - 40 N. Thrift, *Spatial Formations*; A. Barry, "Lines of communication and spaces of rule", in A. Barry et al. (ed.), *Foucault and Political Reason*, London 1996, 123–142.
  - 41 C. Gosden, *Social Being and Time*, Oxford 1994, 126.
  - 42 Though see K. Davies, *Women and Time*.
  - 43 K. Lynch, *What Time is this Place?*, Cambridge MA 1972.

## **SUMMARY**

### **GEOGRAPHICAL PERSPECTIVES ON TIME**

Geographical variations in the temporal organization of societies, at scales from the international to the local, and the many ways (coordination, precision, movement, distribution) in which times and spaces are interconnected, have prompted geographical work on many facets of time and timing over the last 30 years. The paper reviews that work. However, only in a minority of areas has work on geographical dimensions of time and timing been the distinctive product of a spatial discipline since, at the same time, certain geographical and spatial dimensions of temporal structures and time-consciousness have been discussed by writers from other disciplines.

The paper begins by situating geographical work on time in relation to the wider field of time studies, characterizing geographers as, for the most part, consumers of interpretive frameworks from outside the discipline, and especially from history. We then identify and outline three areas in which there have been relatively distinct theoretical work by geographers, namely chronogeography, time-geography, and time-space compression. Thereafter the paper considers five geographical themes in work by both geographers and others, each of which points to certain ways in which previously influential interpretive frameworks require reformulation. These themes are those of spatial variations in temporal structures and forms of time-consciousness (which has become more prominent as the social sciences struggle to evade the influence of the so-called "modernization thesis"); of the multiple times and spaces co-present in any society or locality; of the ways in which different timed spaces maintain their heterogeneous character, rather than converging into a homogeneous Modern Time; of the relations between timing on the one hand, and travel and communications on the other, much studied in recent years; and of the significance of time's symbolic character in constituting culturally-distinct time senses and time keeping systems. These brief discussions of current dynamics within the field of time studies lead to a concluding section that points to some of the important areas for future geographical work.