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Relational Concepts of Space and Place: Issues for Planning Theory and Practice

STEPHEN GRAHAM and PATSY HEALEY

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Abstract This paper seeks to conceptualize and explore the changing relationships between planning action and practice and the dynamics of place. It argues that planning practice is grappling with new treatments of place, based on dynamic, relational constructs, rather than the Euclidean, deterministic, and one-dimensional treatments inherited from the ‘scientific’ approaches of the 1960s and early 1970s. But such emerging planning practices remain poorly served by planning theory which has so far failed to produce sufficiently robust and sophisticated conceptual treatments of place in today’s ‘globalizing’ world. In this paper we attempt to draw on a wide range of recent advances in social theory to begin constructing such a treatment. The paper has four parts. First, we criticize the legacy of object-oriented, Euclidean concepts of planning theory and practice, and their reliance on ‘containered’ views of space and time. Second, we construct a relational understanding of time, space and cities by drawing together four strands of recent social theory. These are: relational theories of urban time-space, dynamic conceptualizations of ‘multiplex’ places and cities, the ‘new’ urban and regional socio-economics, and emerging theories of social agency and institutional ordering. In the third section, we apply such perspectives to three worlds of planning practice: land use regulation, policy frameworks and development plans, and the development of ‘customized spaces’ in urban ‘regeneration’. Finally, by way of conclusion, we suggest some pointers for practising planning in a relational way.

1. Introduction

In a world of tumultuous economic, social, cultural, technological and physical change, how can we best conceptualize the dynamics of places and the role of planning action in shaping them? With globalization apparently ‘stretching’ and deepening the relations between places, tying them into multiple webs of capital, technology, data and services, human interaction, and ways of thinking, at proliferating spatial scales, how might spatial planners translate new understandings of socio-spatial relations into their practices? In this paper, we explore these questions, using recent advances in social theory to develop a relational perspective to the conceptualization of places in planning practices.

We argue that, while in both planning practice and planning thought there are changes underway in the approach to planning action, and in the treatment of place, there has so far been little critical attention to the way socio-spatial relations are being conceived. Whilst we would not want to return to rather sterile debates about ‘procedural’ and ‘substantive’
planning theory, it is clear that much more attention has been paid to conceptualizing and theorizing the new 'communicative' turn in the procedural bases of planning (e.g. Forester, 1993; Harper & Stein, 1995), than to the changing socio-spatial nature of the places being 'planned' (although see Filion, 1996; Lauria & Whelan, 1995; King, 1996; for notable attempts to address both).

As a result, planners in practice are having difficulty grasping the complex dynamics of contemporary urban change. While a concern for the qualities of places, both at the level of the urban region and at the fine-grain of urban neighbourhoods, is presently attracting much policy attention, planners are often responding by reviving old conceptions of socio-spatial relations, rather than addressing the paradigmatic challenges which make these conceptions more and more problematic. Specifically, the spaces of cities are still commonly conceived in object-centred ways, and the time-space of the city is still often conceptualized as a 'container' bounding the activities which go on there. It is worth looking at these two points in detail.

1.1 Object-Centred, Euclidean Conceptions of Place

The first problem is that many planners in practice continue to maintain the reductionist assumption that cities and places can be considered unproblematically as single, integrated, unitary, material objects, to be addressed by planning instruments. We would argue that Melvin Webber's assertion, way back in 1967, that "in both the urban sciences and in urban planning the dominant conception of the metropolitan area and of the city sees each as a unitary place" (Webber, 1964, p. 81; emphasis added) still has a remarkably powerful resonance today. Such perspectives are a legacy of the rationalizing modernist and 'scientific' approaches of the late 1950s and early 1960s, based strongly on social meta-narratives which implied that universal social 'progress' could be possible, through directed, planned change (Boyer, 1983). At this time, planners assumed that cities were physically-integrated places amenable to local land use and development policies. This physically-integrated structure was presented as a surface upon which economic and social activity took place. The planner's task was to manage the structure to remove economic, social and environmental problems. The population, social structure, and economic and environmental dynamics were all assumed to be tightly interlocked within the space of the city, with a functional relationship between activities, physical form and land uses (Chapin, 1965). Space, distance, and the city, in effect, were reified as automatic and determinating forces directly shaping the social and economic world in some simple, linear, cause and effect way. The desired socio-spatial order of the city, and hence its associated socio-economic world, was then expressed and promoted in a master plan (comprehensive plan/development plan).

These ideas were supported by the philosophy of instrumental rationality, by the institutional politics of hierarchical, technocratic (and usually highly masculinized) power, and by notions of physical and environmental determinism (King, 1996). Human life was seen to be shaped by the environment and location within which it occurred. The frictional effects of distance on transportation and communication severely limited external influences. The economic and social lives of city residents were assumed to equate unproblematically with this almost completely physical and locational conception of cities and urban life. As Webber continued, "most planners share a conviction that the physical and locational variables are key determinants of social and economic behaviour and of social welfare" (Webber, 1964, p. 85). The result is that policies become "ipso facto constructed in response to areal problems and take the form of providing physical solutions" (Cooke, 1983, p. 39).

Of course, planning theory has moved on considerably from this extreme modernist, environmental determinist, and objectifying doctrine of the 1960s. Post-modern, post-structuralist and post-Fordist theories are increasingly influential in generating reconsiderations of
urbanism and the city, and the links between knowledge, action and planning (Healey, 1997a; King, 1996). Cities now are widely characterized as diverse and heterogeneous, even 'fragmented, 'splintered' or 'retribalized' (Ellin, 1997). Friedmann (1993) has asserted that we must explicitly strive for 'non-Euclidean' forms of planning which recognize the existence of 'many time-space geographies' within cities and places. Such a planning, he urges, must engage in 'face-to-face interaction in real time' rather than the preparation of abstract Euclidean spatial strategies, centring on open-ended processes and dynamics rather than static normative forms. Planning must explicitly recognize the normative, innovative, political, transactive and social learning foundations of planning. This echoes many of the developments in contemporary planning theory (Fischer & Forester, 1993; Innes, 1995; Healey, 1997a, b) and the debates on place and sustainability (e.g. Beatley, 1994; Hwang, 1996).

However, as we will show later, an object-centred, Euclidean view of cities unfortunately remains implicitly dominant in the deep intellectual foundations of many areas of planning theory and practice. Such views have become deeply embedded in the routines of practice and the thought-worlds of the planning professionals, and the policy communities which cluster around the practice of planning systems. As 'bedrock' concepts of planning, they shift only slightly and move only slowly, despite increasing criticism of their usefulness and appropriateness (King, 1996). Ken Corey, for example, has commented that “urban and regional planning practice throughout many of the world’s industrial market economies is in a state of paradigm challenge. In essence, the crisis exists because old planning procedures of how the industrial city functions don’t seem to apply for today and tomorrow” (Corey, 1987). Ed Soja has lamented the way traditional geographical and planning approaches “treated space as the domain of the dead, the fixed, the undialectic, the immobile—a world of passivity and measurement rather than action and meaning” (Soja, 1989, p. 37).

More recently Robert Warren et al. (1996, p. 3) stress that new socio-economic and technological trends may mean that “the nature of urban life itself may be at the cusp of new, uncharted territory as spatial structures, social processes, and cultures dissolve and reform in unanticipated ways”. They believe, further, that current societal transformations, based particularly on the pervasive application of new information technologies, will “push current frameworks of analysis to the edge of obsolescence”. They include in such obsolescent frameworks linear conceptions of urban economic change and capital accumulation, hierarchical, rigidly spatial and legally-defined governance systems, and the easy separation of ‘machines’ from ‘humans,’ or of ‘technology’ from ‘society’.

The use of object-oriented and Euclidean depictions of cities often implicitly supports the idea that single, unbiased representations of places are possible, even desirable. Rob Shields (1995) reminds us that when planners analyse the ‘city’, their depictions, descriptions, plans and images are themselves partial perspectives, chosen through ‘treacherous selective vision’ (p. 245), which, in turn, become embroiled in the social production of the ‘urban’. Such acts of depiction and discourse are therefore necessarily power-laden acts which highlight certain parts of the urban ‘story’ whilst inevitably neglecting others. As David Harvey (1996, p. 284) suggests, “to produce one dominant cartographic image out of all this multiplicity [in cities] is a power-laden act of domination. It is to force a singular discursive representational exercise upon multiple cartographies, to suppress difference and to establish a homogeneity of representation”. This rejection of a univocal and uniplex spatial order for the city is echoed in the writing of Boyer (1983, 1995), King (1996), and Byrne (1996).

1.2 Time and Space as External ‘Containers’ to Urban Life

The second, related, problem is that planning theory and practice have often been based on conceptions of space and time which are particularly unsuited for dealing with contemporary
urban change, and which are now widely discredited in broader social theory. Planners still widely assumed (usually implicitly) that space and time act as little more than objective, external containers within which human life is played out. In this conception, the objective ‘Euclidean’ geometry of space can, as we have suggested above, be observed and drawn on a piece of paper. Space is seen to act as the empty arena within which the spatial relations and spatial processes that shape cities are enacted (Lefebvre, 1984, p. 1; see Massey, 1993). Cities are seen as special portions of space, bounded, enclosed and separated from rural areas by the frictional effects of distance and the time it takes to travel (Emberley, 1989).

The tools of spatial representation which planners use (master plans, development plans, comprehensive plans, etc.) were traditionally two-dimensional and purported to offer single, objective, representations of urban spaces in Euclidean terms. The city is thus depicted as a ‘jigsaw’ of adjacent, contiguous land use parcels, tied together with infrastructure networks and laid out within a bounded, Euclidean, gridded plain. The ‘city’ is, in effect, assumed to be the sum of the jigsaw, the Euclidean cartographic whole within a single, objective space. Such an approach is so deeply embedded within the worlds of planning practice and thought that it continues to be a central conceptual foundation for the plan-making practices of many countries, at scales from the neighbourhood to the nation. Such concepts also drive recent EU thinking on European spatial strategy (CEC, 1994, 1997). Because such representations are trapped within the confines of two dimensional paper representations, and because they almost always depict space as a Euclidean plain, such plans implicitly construct space as a Cartesian, objective container. As Malcolm Miles (1997, p. 131) suggests, conventional development plans express “a representation of space which enables idealised conceptions of the city. From it are derived the methodologies of planning and design which depend on the reduction of realities to geometries. [Through these] users often become an undifferentiated whole ascribed the same disempowered role”.

Above all, with this dominant notion of the unitary, geometric city, adjacency within this spatial object—say between land parcels, industrial areas or neighbourhoods—is assumed to produce relational meaning within places. Thus, for example, mixed use ‘urban villages’ and New Town neighbourhood units are still assumed to be internally integrated by strong socio-economic links (labour markets, travel to work, community and social networks, sense of place, use of services, etc.). Ideas of the unitary, integrated city, then, with their reification of distance, space and city form as independent, universal, causal forces, are slow to be shrugged off. Often, this assumption of internally-integrated places is backed up by the political sense of separation and sovereignty that comes with the partitioning of municipal jurisdictions and the growth of inter-urban economic competition (Elkins, 1995).

Planning practice in this mode addresses its depictions of ‘jigsaw’ urban landscapes through projects and land use regulation processes. These either seek to direct the Euclidean, geometric spaces towards some broader defined goal, based on the assumed relations within the objective space, or, more modestly, to use the assumptions of Euclidean space to assess the impacts and ‘spillovers’ of projects on the other spaces of the existing city (as with traffic generation models and development, retail and environmental impact assessments, etc.). And, as with the many urban structure models (like those of Isard and Christaller), or the many regional economic development and regional science concepts on which social scientific notions of planning are founded), interaction is often still assumed to decay strongly over space because of the frictional effects of distance, in ways analogous to the gravitational interaction between physical bodies. Thus, as Soja argues, despite recent advances in planning theory, the treatment of the city in many planning and urban studies texts often still implicitly grounds “explanation primarily in social physics, statistical ecologies and narrow appeals to the ubiquitous friction of distance” (Soja, 1989, p. 37).
Time, meanwhile, still tends to be either neglected completely in planning practice and theory, or is assumed—echoing classical Newtonian physics—to be a single, universal, container for events which flow in a linear, one-directional flow. Typically, in British Development Plans, for example, amounts of space are expected to be used for particular activities in a specific ‘space-container.’ But, implicitly, they are also expected to be used within a specific time-period, or ‘time-container’. Unfortunately, though, conceptions of space remain divorced from conceptions of time, even though it really only makes sense to consider the multiple, overarching and interfacing webs of space-time in the city (Thrift, 1996a). Above all, by maintaining, even implicitly, ‘containered’ and objectified notions of space and time—ironically 60 years after they have been discarded in physics and natural sciences—planning practice remains unable to respond to the now widespread recognition that spaces and times are effectively produced and created through social actions within and between places. That these new intellectual perceptions are matched in practical politics is evident in innovations emerging in planning practice, for example with Italian innovations with respect to policies for time in cities (Bonfiglioli & Mareggi, 1997) and by widespread attempts to treat time and space in an integrated way through city centre and ‘24 hour city’ strategies. But so long as planners in practice continue to maintain the belief that space and time exist independently as some immovable frame of reference inside which events and places occur, it will not be possible, as Bruno Latour (1987, p. 228) suggests, “to understand how different spaces and different times may be produced inside the networks built to mobilise, cumulate and recombine the world”.

In the rest of this paper, we attempt to provide conceptual resources through which to move the thought-worlds and practices of spatial planning more usefully into the multiplex time-space of the contemporary city. We also seek to show, through examples of practices in Britain and France, how planners are being pushed to make new responses to the new socio-spatial relations of the city. But the past still lives on in their concepts and practices; so far, we argue that these responses are largely reactive. In our conclusion, we argue that the planning field needs a vigorous effort to re-configure our thinking about socio-spatial relations and their translation into the routines and spatial strategies pursued in planning practices.

2. Towards a Relational Understanding of Time, Space and Cities: Theoretical Dimensions

Fortunately, a veritable deluge of theoretical innovation across the humanities and social sciences has recently emerged which offers considerable potential for rethinking and revitalizing the ways in which we theorize places, planning, and the links between them. We illustrate such relational perspectives to time, space, cities and social agency by examining four strands of this re-conceptualization.

2.1 Relational Theories of Urban Time-Space

Firstly, recent social theories stress the very real heterogeneity of the experiences of time-space within and between cities (e.g. Giddens, 1979; Lash & Urry, 1994; Adams, 1995; Amin & Graham, 1998). This work severely undermines the very idea that we can simply and unproblematically generalize the ‘city’ as a unitary phenomenon with a single space-time. Underpinning these analyses, relational rather than absolute theories of time-space are rapidly gaining influence in geography, urban studies, and social theory (Harvey, 1996; see also Hwang 1996). Nigel Thrift (1996b) notes that contemporary cities display the kind of (very real) variegated senses of time—from the intense and global instantaneity of the financial markets and global media and communications flows, to the spiritual times of new urban mythology, and the ‘glacial’ times of global ecological change. Many different
notions, experiences and representations of space-time continually collide and resonate within individual places; indeed, this is the very essence of contemporary urban life. Planning necessarily relates to the manifold and multiple space-times of place because it actively tries to configure what King (1996, p. 248) terms “the times of human progress [...] and the rhythms of daily life and its destruction”. This variety was well-understood in the eighteenth-century city but was lost from modern planning discourses with their unitary, linear conceptions of a single, societal process of temporal progress, developed in the modernist perspective (Bauman, 1982; Friedland & Boden, 1994).

To match this, the unthinking acceptance within urban studies that time and space act simply as objective, invariant, external containers for the urban scene is now collapsing (Harvey, 1996, p. 256). David Harvey, for example, draws on Whitehead’s theories to suggest that the heterogeneous experience and construction of time within cities is a very real, rather than a merely ‘perceptual’, phenomenon. “Multiple processes” he writes “generate multiple real as opposed to [the philosopher] Leibniz’s ideal differentiation in spatio-temporalities” (Harvey, 1996, p. 259). To Harvey, such a “relational theory of spatio-temporality indicates how different processes can define completely different spatio-temporalities, and so set up radically different identifications of entities, places, relations” (Harvey, 1996, p. 284).

Crucially for notions of urban planning and the city, Harvey believes that it is ‘cogredi-ence’, or “the way in which multiple processes flow together to construct a single consistent, coherent, though multi-faceted time-space system” (Harvey, 1996, pp. 260–261), that is the key concern. Thus, the urban becomes an embedded and heterogeneous time-space process; the city, by implication, “cannot be examined independently of the diverse spatio-temporali-ties such processes contain” (Harvey, 1996, pp. 263–264). Nigel Thrift (1996a, p. 2), drawing on his long-standing work in ‘time geography’, similarly asserts that “time is a multiple phenomena; many times are working themselves out simultaneously in resonant interaction with each other”.

2.2 ‘Multiplex Cities’: New, Dynamic, Conceptualizations of Place

Secondly, and following on from this, new social analyses of places, and especially urban places, are rapidly emerging in geography and urban studies (for a review, see Amin & Graham, 1998). These stress that places are “articulated moments in networks of social relations and understandings”, rather than “areas with boundaries around” (Massey, 1993, p. 66). Just as time is non-linear and multiple, so socially-constructed places are non-contiguous, diverse, dynamic and superimposed. As well as being bound to place-based relations, cultural, social, economic, political and environmental links and relations can be stretched across space, or what Adams, building on the work of Anthony Giddens (1979), calls ‘extensible’ over time-space.

Geoff Mulgan (1997), in fact, labels the current era one of ‘Connexity’. To him, cultures, economics, social worlds, politics and environments all become driven by logics of increasingly intense interconnections and flows, over larger and larger geographical scales. Thus, telecommunications and fast transport networks can support a growing range of economic, social, and cultural interactions which are “both in place and out of place” (Adams, 1995, p. 279), with the ability to ‘extend’ one’s actions in time and space remaining profoundly uneven, both within and between places. Ecological risks, too, tend to spread in time and space, as part of what Ulrich Beck (1992) terms the shift to the ‘Risk Society’. This totally undermines the notion of the environmental closure of spaces, or the idea that propinquity shapes externalities, risks and hazards in some simple, linear way.

Clearly, all these notions explode the persistent idea of the unitary city. We must be careful, though, not to go too far the other way to assume that place no longer matters in a
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'globalizing' world (see Graham, 1998). Rather, we need new conceptions of place and the city based fundamentally on relational views of time and space and the notion of 'multiplex', socially constructed time-space experiences within urban life. To do this, though, we must quickly throw off the idea that places can be simply, and singly, represented in plans and planning discourses. To attempt to capture the multiple, dynamic, and contingent, lived worlds of places or cities, a growing number of urban commentators now stress the need for maintaining multiple perspectives of the city simultaneously. Harvey, for example, believes that "learning to see the world from multiple positions—if such an exercise is possible—then becomes a means to better understand how the world as a totality works" (Harvey, 1996, p. 284). Rob Shields (1995, p. 245) has urged us to "construct multi-dimensional analyses which, rather than imposing monological coherence and closure, allow parallel and conflicting representations to coexist in analysis". And Charles Jencks (1996, p. 26), father of the term 'post-modernity', even suggests that "virtually all theories about the city are true, especially contradictory ones. The city works both as a mediaeval village with the equivalent of 13th century inhabitants pottering about, and a global network of 24 hour traders".

Two tasks emerge here for urban and planning theory. First, it must maintain parallel perspectives of what Dematteis (1988) calls the 'multiple spaces' that become relationally constructed, interlinked, and superimposed within extending 'urban' regions (see Healey et al., 1995). Second, it must acknowledge the ways in which multiple space-times are inscribed into what Doreen Massey terms a city's 'power geometry' (Massey, 1993). This recognizes that the freedom to extend one's actions in time and space is a form of power over space, time, social processes, and people, a recognition which is central to an understanding of contemporary cities.

Thus, for example, on the one hand, the tiny elite who operate the global financial markets in spaces like the City of London may enjoy new forms of technological and social 'super-inclusion' (Thrift, 1996b), allowing them unprecedented power to shape global power relations, property markets, economies and social change (whilst they may themselves inhabit and work in cocooned, fortified living spaces, working spaces and infrastructure networks). "The extensible relations of a tiny minority in New York, London, and Tokyo", writes Paul Adams (1995, p. 277), "serve to control vast domains of the world through international networks of information retrieval and command". On the other hand, however, a short physical (but long relational) distance away, in the interstitial, marginalized urban zones of contemporary cities, there are 'off-line' spaces (Aurigi & Graham, 1997), or 'lag-time places' (Boyer, 1995, p. 20) where few telecommunications, transport opportunities, or financial flows penetrate. In such 'network ghettos', the "space of flows comes to a full stop. Time-space compression means time to spare and the space to go nowhere" (Thrift, 1995, p. 31). In these, often-forgotten places, time and space may remain profoundly real, perhaps increasing, constraints on social life, because of welfare and labour market restructuring and the withdrawal of banking and public transport services (Kirsch, 1995).

It is easy, in short, to over-emphasize the mobility of people and things in simple, all-encompassing assumptions about place-transcendence or 'globalization' (Thrift, 1996c, p. 304), which conveniently ignore the splintering and fragmenting reality of urban space. In fact, as Nan Ellin (1997) shows, today's cities are often characterized by intensifying efforts to secure, wall and fortress the 'cellular' elements of material cities from each other and from unwanted incursion. At the same time, however, extensive efforts are made to support the relational interconnection of valued spaces by providing them with the networked infrastructures of roads, airports, ports and telecommunications that allow them to maintain or strengthen their distanciated links. Thus, considerations of the 'openness' or 'cohesion' of a city needs to understand how its material spaces and infrastructure networks are constituted
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in parallel to create and define the internal differentiation of spaces, neighbourhoods, and life-chances, as well as the uneven integration of parts of cities into geographically-stretched economic, social and cultural relations.

2.3 The New Urban and Regional (Socio-) Economics

Thirdly, new relational theories of urban and regional economies and technological change have recently transformed understanding of spatial economic change in geography and (to a lesser extent) economics (Storper, 1997a, b). These suggest that the spatial essence of urban and regional economies lies in combinations of what Boden and Molotch (1994, p. 259) call the ‘thickness of co-present interaction’, where intense, recursive, face-to-face interactions are supported within urban space, with growing mediated flows of communication and contact via technical media, to the broader city and beyond (see Thrift, 1996b). Thus, in a shift to what Castells (1996) calls a ‘Network Society’, national urban hierarchies are being recombined and remade as more interconnected ‘hub’ and ‘spoke’ urban networks linking specialized urban economies across international boundaries via high-capacity transport and telecommunications networks (Graham & Marvin, 1996). Dematteis notes “the passage from a functional organization in which the centres are graded with a multi-level hierarchy (as in the models of Christaller and Lösch) to interconnected networks organized on the basis of the corresponding complementarities of the nodes and the synergies produced” (Dematteis, 1994). Most famously, as the work of Saskia Sassen (1991) has demonstrated, an integrated network of so-called ‘Global cities’ is emerging across the planet through which national economies, societies and cultures become articulated with distanciated, international relations and flows.

Thus, we might agree with Beckouche and Veltz that “on the whole, the old geography, which linked businesses to the sources of raw materials and to consumer markets is being thrown into confusion at the expense of a more complex geographical arrangement where the production-distribution system can fight it out in space using the length of the infrastructure and communication networks on a national, even planetary level” (Beckouche & Veltz, 1988). In many cases, then, cities can no longer be considered as bounded, isolated, unitary economies. They are criss-crossed by many socio-technological networks “based on indifference to the notion of boundaries” (Negrier, 1990, p. 13)—part of what Gilles Deleuze called a crisis in ‘all environments of enclosure’ (Deleuze, 1988). In many urban and regional economies, then, there are clearly zones where fragmentation and splintering between adjacent units is now the norm, as exchange and interchange becomes disembedded from the immediate locale, through fast transport and advanced telecommunications systems, to global networks of flow (Giddens, 1990; Castells, 1996).

This is especially so when one examines the new service-based and information-rich economies of advanced industrial cities, linked into internationalizing networks of flows that are dominated increasingly by Transnational Corporations (TNCs) (Graham, 1996). According to Castells, this new ‘global geometry’ of production, consumption and information flows “denies the specific productive meaning of any place outside its position in a network whose shape changes relentlessly in response to the messages of unseen signals and unknown codes” (Castells, 1989, p. 348). Paul Virilio even suggests such a transition amounts to nothing less that a “crisis in the notion of physical dimension” (Virilio, 1993, p. 9) of space, place, the region and the city. “The archaic ‘tyranny of distances’ between people who have been geographically scattered”, he writes, “increasingly gives way to the ‘tyranny of real time’ [...]. The city of the past slowly becomes a paradoxical agglomeration in which relations of immediate proximity give way to interrelationships over distance” (Virilio, 1993; p. 10).
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This can be seen in the diversity of daily time-space patterns of neighbours on a housing estate or the firms on a business park. Many households and firms are now likely to have complex relations, mediated by telecommunications and transport networks, with family, friends and work contacts, or business suppliers and markets, with few close linkages to their neighbour in their street or their business park. To Mulgan, the growing importance of distanciated, network-based connections, means that city economies are increasingly driven by:

- the logical or 'virtual' regularities of electronic communication, a new geography of nodes and hubs, processing and control centres. The nineteenth century's physical infrastructures of railways, canals and roads are now overshadowed by the networks of computers, cables and radio links that govern where things go, how they are paid for, and who has access to what. The physical manifestation of power, walls, boundaries, highways and cities, are overlaid with a 'virtual' world of information hubs, databases and networks. (Mulgan, 1991, p. 3).

Urban and regional planners are beginning to incorporate the new time-space dynamics of advanced telecommunications into their conceptions of their cities. This has probably developed furthest in France. A recent communications plan for the French city of Lille, for example, accepts that:

- the traditional concepts of urban and regional planning are today outmoded. The harmonious development of areas towards equilibrium, the correct sharing out of resources, providing support to complementary developments within the city ... these ideas have given way to the impression that spaces are fragmented, atomized and strongly competitive [...]. The insertion of telecommunications into the city makes the development of spaces more complex and introduces today a third dimension into urban and regional planning [after space and time]: this is the factor of real-time. (ADUML, 1991)

But despite this recognition of the decomposing of integrated, unitary conceptions of space and place, it is very important to stress that deepened economic relations between cities and regions do not necessarily lead to local economies of absolute fragmentation, which are merely arbitrary collections of units stretched out on global networks. Places continue to matter in a globalized economy; some would say they are mattering more and more (Storper, 1997a, b). But why this apparently paradoxical situation: the re-assertion of place in a globalizing world? To appreciate how this comes about, it is necessary to dispense with the mechanistic and object-oriented notions of local, urban, and regional economies that have dominated planning thought in the post-war period. More socially, culturally and institutionally sensitive and nuanced approaches to the interlinkages between place, economy, technology, institutions and governance are required. One needs, as Amin and Thrift put it, to invent a 'socio-economics' of territory (Amin & Thrift, 1997). Michael Storper helps us on our way, here, when he suggests that regional economics, like economics in general:

- continues to be controlled by the metaphor of economic systems as machines, with hard inputs and outputs, where the physics and geometries of those inputs and outputs can be understood in a complete and determinate way. This focus on the mechanics of economic development must now be complemented by another focus, where the guiding metaphor is the economy as relations, the economic process as conversation and coordination, the subjects of the processes not as factors but as reflexive human actors, both individual and collective, and the human and
economic accumulation as not only material assets, but relational assets. (Storper, 1997a, p. 248)

As the 'cultural' turn in economic geography reveals (see Lee & Wills, 1997), there are clearly sites in the emerging urban landscapes where urban propinquity does still matter (perhaps increasingly so)—the global financial districts, the cultural and media zones, the consumption spaces, the new (and old) industrial districts, the university, research and development and knowledge industry districts, the lifestyle neighbourhoods, the zones of concentrated disadvantage. In fact, there is increasing evidence that high value-adding, highly volatile and highly reflexive knowledge-rich industries like corporate management, financial, services, media production, research and development, high-tech production and high level governance actually require tight territorial clustering within specific urban districts offering unparalleled relational assets or what Storper calls 'untraded interdependencies' (Storper, 1997a, p. 250). Such places insulate against risk. They support the emergence of trust, reciprocity and on-going innovation. And they offer infrastructures, services and prestige that other places do not. In short, globalization seems to demand localization in the favoured places of the emerging planetary urban system.

2.4 Emerging Theories of Social Agency and Institutional Ordering

Finally, new theories of social agency and institutional ordering have recently emerged which offer new directions for thinking about the nature of planning in fragmented societies, characterized by multiple time-spaces, diverse stakeholders, and manifold perspectives. Both the 'institutionalist' and 'communicative' work in planning theory (Healey, 1997a; Forester, 1993) and the 'actor network' perspective, deriving from Callon (1986) and Latour (1993), stress the need for fully contingent and relational approaches to social 'ordering', and to the configuration of technical artefacts, discourses, and 'texts' such as planning documents, within broader social contexts (Bingham, 1996). Within both perspectives, absolute spaces and times have no meaning. Agency is a purely relational process. Technologies and texts only have contingent, and diverse, effects through the ways they become linked into specific social contexts by human agency.

In this perspective, social ordering occurs through complex efforts of both humans and non-humans to engage other actors through performative actions that are fundamentally heterogeneous and impossible to generalize (Thrift, 1996a). 'Agency' is defined as a "precarious, contingent effect, achieved only by continuous performance and only for the duration of that performance" (Bingham, 1996, p. 647). Structure, following Giddens (1984), is the product of agency in action, as well as constraining how people think and act. Such theories support our view that multiplex cities are complex performative arenas, where relational webs weave layers of order between heterogeneous social groups, filières of firms, governance agencies, etc. But such an emphasis on contingent and heterogeneous social practices also serves to challenge the very idea that generalization can be made about what the 'city' is. Once again, it supports relational perspectives of the heterogeneity of space-time. Thus, Thrift stresses:

the hybrid outcome of multiple processes of social configuration processes which are specific to particular differentially extensive actor-networks (made up of people and things holding each other together) and generate their own space and own times, which will sometimes, and sometimes not, be coincident. There is, in other words, no big picture of the modern city to be had but only a set of constantly evolving sketches. (Thrift, 1996b, p 1485)
3. The Worlds of Planning Practice

As it begins to be exposed to these (and indeed other) vigorous intellectual currents, the domain of planning theory is struggling to understand the implications of this paradigmatic transformation for conceptions of cities and of planning processes. Storper's demand for a relational, reflexive and interactive understanding of how economic development is accomplished is well-established in the new interpretive paradigm in planning theory (Healey, 1997a, b; Innes, 1995). Planning practice, too, is changing, responding to new pressures which carry the multiplex demands of different ways of thinking about time-space, place, and agency.

However, these new ideas are slow to filter into the world of planning practice, a symptom of the wide continuing divide between theory and practice in planning. Planning practices are an ensemble of social relations, networks and nodes of dynamic and often inventive social interaction, patterned by both legal, governmental and professional systems, and by customs and habits built up over the years. They embody ways of thinking and ways of acting, which interact in complex and often ambiguous ways (Healey, 1997a). Policy talk is not necessarily consistent with policy action (Barrett & Fudge, 1981). The logic of action may re-configure the demands for new approaches into the familiar and often implicit moulds embedded in practices, but yet these may lose their logic as practitioners devise ways to cope with contradictory forces. To illustrate this complex evolution, and to explore how planning practice is beginning to develop new relational ways of thinking about space and place, we would like to consider three examples in detail, two from the ‘mainstream’ of British planning practice, and one from French urban ‘regeneration’ practice.

3.1 Thinking About Impacts in ‘Regulating Land Use’

The first example illustrates land use regulators confronting the challenges of a multiplex world with the mindset of a uniplex one. Many webs of relations are drawn into the planning permitting process. These could potentially encompass the networks of, and relations between, landowners, developers, financiers, end-users, various third parties, different sectors of central and local government, local politics, national politics, pressure groups of all kinds. Here we focus on the nodal point of the work of the planning office, dealing with an application for permission to develop. How are the dimensions and impacts of a development project to be considered?

The British planning system is characterized by the exercise of administrative-political judgement in determining whether a permit should be given (in contrast to the norm-driven zoning regimes common elsewhere in Europe, Davies et al., 1989; Booth, 1996; CEC, 1997). It structures the making of judgements so that planning officers pay attention to national statements of planning policy, local statements (primarily embodied in the ‘development plan’), and other considerations specific to the case. Up to now, the planner was expected, according to national guidance, to follow the principle that a planning permit should be given unless a project would cause “demonstrable harm to interests of acknowledged importance” (DoE, 1985). This enduring phrase has enormous interpretive flexibility, but is entirely devoid of any spatial reference point. Yet most discussion of the impacts of development in fact focuses on the qualities of the site, or on local impacts, and, in particular, on adjacent impacts. The primary concern has been to ‘fit’ a new project into the existing ‘jigsaw’ landscape of buildings and open spaces and deal with the additional loads on infrastructure caused by the development.

To the extent that wider impacts are recognized, they are assumed to be addressed by the policy framework. The development plan, in particular, is supposed to specify broadly the amounts of development which may be expected in an area, the general locations where such
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development may happen, and the time periods over which development may take place. But when a project actually arrives for the regulatory judgement, it comes with a whole nexus of potential relations of its own, which affect its viability, and, in its ‘landing’ on a particular site at a particular time, it has impacts along all kinds of relations in which the site and the project have significance. Which of them get explored, and in what way? And what does this tell us about the implicit socio-spatial theories-in-use?

The study of the negotiation of ‘planning obligations’, the current British technical term for ‘developers’ contributions’ or ‘planning gain’, illustrates the evolution of thinking about such impacts (Healey et al., 1995). Until the 1980s, a development project was assessed in relation to its proposed location conceived primarily as an arrangement of land uses. Social activities occurred on the sites. The land use pattern could be taken as a proxy for the social processes. The relations of the activities were assumed to be structured by propinquity and economically-maximizing and distance-minimizing behaviour. People went to work in the nearest business. They shopped at the nearest foodstore. They went to the nearest city centre for their durable shopping and cultural recreation. They were assumed to care most about what happened nearest to them.

In the 1960s and 1970s, the primary focus of the negotiation of planning ‘gain’, as it was known then, was on safeguarding rights of way, dedicating land for public use within a development, so that a site would not be completely alienated into the private realm, and providing the infrastructure connecting the site to the existing physical networks (roads, water and drainage were particularly important) (Jowell, 1977). By the 1980s, however, the conception of impacts widened out. In Tewkesbury, for example, in an area which was expected to take a large allocation of new development through development plan policy, there were complex problems of drainage to be sorted out, as development upstream could damage downstream water flows (Healey et al., 1995). In one case, agreements were negotiated for actions and financial contributions linking the stage of the building process and the state of the housing market, to phased investment in a system of temporary and permanent balancing lakes and run-off channels across the drainage basin. Propinquity here is supplemented by the flow dynamics of a hydrological system, and the dynamic relations of a particular market.

Meanwhile, local residents were disturbed by the scale of development, but began to organize to demand some compensation for adverse impacts. In another case in the same area, in addition to contributions to highway and drainage infrastructure, provision of schools and playing fields, recreational and amenity open space, and landscaping features, a developer of a project of 1000 dwellings provided half a million pounds to a local parish council for recreational and community purposes. Here, propinquity gave special bargaining power to a particular and visible affected group. But a development of this scale could generate loss of amenity and other values across many relational networks, and the additional activity generated could, in turn, create pressure upon a wide range of services. Why should a neighbouring parish council be singled-out to receive a gain?

Such relational issues have been increasingly highlighted in the discussion of ecological impacts. Recent national government advice on the use of obligations recognizes that it is often desirable to “offset the loss of, or impact on, any amenity or resource present prior to” a development, “for example in the interests of conservation”, but largely refers to replacements on a site, such as “creating nature reserves, planting trees, establishing wildlife ponds and providing other nature conservation benefits” (DoE, 1991). This constructs ecological relations in terms of a stock of specific assets. It illustrates a significant shift from the notion of a project fitting into a land use pattern which acts as a proxy for a social process. Instead, it allows a despatialized treatment of projects and their impacts, in which the value of a project in terms of planning criteria can be weighed against its costs. While such an approach
represents a more sophisticated treatment of the potential impacts of a project than simple propinquity, it fails to address the nature and interconnections of the webs of relations through which any particular impact reverberates. Such an asset stock conception is increasingly challenged in the environmental field by those who argue that it fails to attend to ecosystemic relations and the spread of environmental risk in space and time (Owens, 1997; Healey, 1997a). In effect, it treats impacts as amounts, as ‘things’ (Harvey, 1996), detached from the relations within which they are constituted and have meaning and force, and converted into a despatialized and desocialized quantum of impact.

Regulatory practice, in Britain, is clearly struggling to come to terms with new ways of conceptualizing projects and their impacts, and new ways of arguing about them. There are signs of a shift from propinquity and distance-decay (on-site and adjacent impacts), towards some consideration of the causal relational links between projects and impacts. There is an awareness that there are multiple impacts, which leap across adjacent spaces. But, rather than unpacking the connections between a project and its impacts, through identifying the relational webs which a project brings with it and which it touches in landing on a site, the vocabulary used constructs a project and a place in terms of a quantum of aggregate activity, an output not a process, an amount not a place. The language used is that of balancing quantities of impact. This begins to link to the economic calculus of cost-benefit analysis, although this technique is rarely used. Instead, the balancing is weighed in relation to policy criteria.

When disputes enter the legal arena, a more relational emphasis opens up, in the legal language of a ‘reasonable relationship’ (Healey et al., 1995). In the division between law and policy in the British planning system, it is left to the planners to articulate a ‘reasonable’ connection. In principle, this allows the variable space-time linkages of a multiplex world to be brought into play. But these shifts are not underpinned by coherent conceptualizations. In the arenas of government policy, in local negotiations, in public inquiries and the courts, planners are struggling to articulate principles to govern the decisions they make. They are being pushed along by the pressures of local politics, and by resistance to development and national pressure groups, who make themselves ‘acknowledged as important’. This privileges the circuitry of the vocal and powerful. Impacts on those without the power and resources to speak up, and on those distant in space and time, are neglected. An explicitly relational approach would require that the planning regulators consider all those with a stake in what happens in relation to a project. Planners would need to identify the networks and processes through which any impact might be experienced, find ways to articulate the reasoning of the relationship and assess the scale of the impact (‘proportionality’, as it is known in the US). How the impacts thus identified are ‘balanced’ with each other, and how those suffering adverse impacts might be compensated by those benefitting from the project, could then be discussed in a way which took account of the meanings, values and material situations of all those significantly affected.

3.2 Policy Frameworks and Development Plans

These confusions might not matter at the level of the regulatory permit decision if the policy frameworks intended to guide regulatory practice effectively incorporated an understanding of socio-spatial dynamics, and provided policy criteria to focus the attention of the regulators when assessing the adverse costs of a project. It is in this arena that the changing conceptualizations of space and time are more obvious. British development plan practice may be crudely divided into three phases: the ‘blueprint’ land use plans of the early post-war years, the strategic spatial plans grounded in conceptions of regional socio-spatial systems, and the sectoralized policy plans of recent years. The blueprint style arose in part from a conception
that planners could control spatial change, rather than merely shaping the flow of processes of change. The plan delineated what was to be built where, in 5-year time periods, assuming that the complex relations of multiple development processes could be coordinated in a common time schedule. This managerial viewpoint was associated with the functional conception of socio-spatial relations outlined in the previous section, in which activities and their relationships could be 'read off' from the land use pattern. The classic British spatial plan associated with Patrick Abercrombie and others, which influenced generations of planners in mid-century (Keeble, 1952), envisaged a city which combined the patterns of Isardian central place theory with the notions of self-contained *gemeinschaft* communities (Ravetz, 1980; Hall et al., 1973).

This approach was heavily criticized in the 1960s for its failure to appreciate the dynamics of regional development. Drawing on a more sophisticated geography and ecology, and much influenced by Chapin (1965), Chadwick (1978) and McLoughlin (1969) sought to imagine the city in relational terms. The focus of attention shifted from spatial patterns *per se*, to the dynamics of the regional economic system and the urban communications system, both in terms of transport and information flows. Drawing heavily on economic base theory and the behavioural urban ecology of the Chicago sociologists, the ambition was to build dynamic models of the economic and social relations of settlements, and translate these into spatial patterns. These would provide the basis for preparing a development strategy and a development plan.

Chapin (1965) conceptualized land uses as 'activity spaces' and railways and highways as 'channel spaces', producing land use and transport models which combined the two. The dynamics of these models were provided by the development of the economic base (and the jobs generated), and the relationships assumed between jobs, dwellings, service needs and the movement dynamics of reducing the friction of distance. Such models, it was hoped, would not only allow the exploration of alternative socio-spatial scenarios (primarily to manage the relations between land needs for growth and infrastructure investment). They could also be used in regulatory practice, to allow the impacts of a development to be assessed by checking them out against the relational assumptions in the model, a kind of systematized environmental appraisal (Chapin, 1965; McLoughlin, 1969). These 'systems models', which dominated the technical planning literature in the late 1960s and early 1970s, underpinned the early British attempts at producing the new kinds of 'structure plan' introduced in the 1970s (Cowling & Steeley, 1973).

One of these pioneering plans was the South Hampshire Structure Plan (South Hampshire Plan Advisory Committee, 1972). It involved an elaborate exercise in building a model of the existing relationships, forecasting growth and then exploring different development location scenarios. The conceptions underlying the model were very simple:

Three activities and uses (i.e. land uses) are of particular strategic importance ... employment, homes and shopping. The existing locational distribution of these activities, which attract or generate by far the largest proportion of all journeys made in the area, provides the core of South Hampshire's present urban structure ... . (para 4.8, p. 19)

As in Chapin's conception, activities occur on sites and are connected by movement channels. Drawing on the classic Abercrombie tradition, the urban 'structure' is set within a 'rural framework' which provides resources of agriculture and recreation opportunities for the urban inhabitants (Chapin, 1965, p. 21). This 'largely self-contained city region' (para 2.28, p. 1) is conceived in terms of a hierarchy of central places, except that it has several nodal points rather than a single one. The dynamic of regional growth is partly internally-driven. External inputs are confined to migration flows from the rest of the south-east region. The language of analysis
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deals in aggregates rather than differentiated dynamics. There is no comment on the relational dynamics or locational preferences of the various firms which are ‘growing’. The Plan nevertheless presents a striking attempt to develop an overarching conception of the regional economy. The problem lies in its closure, and in the way it considers the internal system relationships. It sets up the regional dynamics of the area as a closed system with internal feedback loops, on the lines of Forrester’s conception of urban dynamics (Forrester, 1969). Like their informing ideas, such plans dealt in concepts of equilibrium-seeking systems rather than evolutionary systems (Hwang, 1996). They treated space as Euclidean and time as linear. In retrospect, the models used not only failed to identify the contingencies of the South Hampshire economy, which became obvious as recession and restructuring set in the 1970s and 1980s. They also failed to consider the political, institutional and resource context in which the regulation and promotion of development would take place. South Hampshire was treated as an ‘object’ to which strategies would be applied, rather than a dynamic melange of social relations within in which planning actions would be variously articulated and intertwined.

Despite serious economic difficulties in some sections of the regional economy, South Hampshire has continued to grow and the political problem of allocating sites for new development has become increasingly acute for both local and national politicians. By the 1990s, Hampshire County Council was one of the authorities locked in battles with central government over how much new housing development they would be required to take. Structure plan practice evolved in the 1980s to reflect the institutional context. The presentation of a spatial territory into which development would be fitted (the spatial jigsaw) was replaced by recording of an ‘institutional territory’ in terms of which projects had to be legitimated (the institutional jigsaw). This recognized the power of agency in structuring space, but at the cost of losing the sense of space and place. The plan was no longer even a two-dimensional map. Instead, it became a record of sites and zones affected by particular policy considerations.

Hampshire County Council produced two plans in the 1990s. The approved Structure Plan of March 1994 is still concerned with accommodating growth and maintaining the discreteness of urban settlements. The spatial conception of the county is of a central rural landscape (the New Forest and the Hampshire Downs) (a ‘rural heartland’) and major growth areas in the north-east (under development pressure from Reading and London) and the south (Southampton and Portsmouth). The ‘strategy’ aims to conserve the heartland and the character of existing settlements and provide for local needs. The conception of the landscape remains that of a ‘container’: “A central theme of the Plan is to preserve the distinction between town and country as two different kinds of environment” (HCC, 1994, para 27, p. 10).

‘Strategic gaps’ of landscape are to be retained between settlements, to sustain the illusion of self-contained settlements, against a reality of increasingly complex socio-spatial relations across the County space and between it and other spaces. Apart from these spatial principles, the plan divides its material into a series of topics, each being discussed largely in isolation from the other, reflecting the sectoralized institutional relations of the policy communities surrounding plan-production (Healey, 1993; Vigar et al., 2000). By 1996, a new concern with place and identity appears in the plan. The elements of the spatial order remain the same. However, the plan is concerned that:

suburban development has tended to reduce local distinctiveness and sense of place in many parts of the County. The County’s built heritage and its countryside needs to be protected not only for its own sake but also to retain Hampshire’s attractiveness to investors and tourists. Community identity, a sense of place and belonging, which is part of this heritage, also needs to be defended. (HCC, 1996, para 21, p. 6)
The notion of community identity has political attractions in a County where the politics of the defence of place against further growth became acute in the 1990s. The 1996 Plan attempts a more coherent overview of the County as a place, using the marketing language of ‘vision’ and the environmental language of ‘sustainability’. The vision articulated is of “a prosperous and attractive County where social and commercial needs are met in ways that, while minimising the need for travel, improve the quality of life and sense of community of present and future generations” (HCC, 1996, p. 11).

But this ‘Vision’ is not developed into a re-conception of the socio-spatial dynamics of change in the sub-region, nor is there any conception of the multiplex times and places which are evolving in the County area. The topic chapters of the plan provide policy criteria intended to be used in assessing actual development projects, at the point where the institutional and spatial ‘jigsaws’ interact. This evolution of the Hampshire Structure Plans illustrates well how the attempt at a uniplex spatial strategy has decayed into a highly generalized conception of the ‘space’ of the County, with the policy dynamic of the plan structured not by technical analyses of socio-spatial dynamics, but by the politics of institutional interactions. In these interactions, multiplex space-time perspectives are consolidated through the voices of powerful local players and the regulatory vocabulary of national planning policy (Tewdwr-Jones, 1997; Healey, 1998). To release the multiplex dynamics from these uniplex constraints, the multiple conceptions need to be given institutional space to find expression and conversation with each other.

3.3 Global Positioning, Network-Territory Tensions, and Urban ‘Regeneration’

Our final example of the relational dilemmas surrounding contemporary planning practice centres on proliferating attempts to use new network infrastructure projects to position city spaces as nodes within the global economy. Effectively, such new urban regeneration projects—airports, optic fibre-served business parks, ‘teleports’, new ‘mega’ sea ports, and fast rail stations etc.—can be viewed as planned ‘filière fighting’. That is, their aim is to use ‘high tech’ infrastructure networks to connect the local space into distanciated webs of economic exchange, in ways that brings local multipliers to the ‘home’ jurisdiction (Graham & Marvin, 2000).

A good example of this strategy is the Roubaix ‘Teleport’ strategy—an attempt to revitalize a decaying textile town to the north-east of Lille in France, based on large public subsidies to futuristic office spaces. These are linked up to both satellite ground stations for global connection and municipal optic fibre grids for linkage to the rest of the metropolis. The Roubaix strategy demonstrates very clearly the sorts of relational tensions between ‘openness’ and ‘closure’ that characterize planned urban regeneration strategies based on inserting new networked infrastructures into the urban fabric.

Responding to spiralling interurban competition in France, the town’s centre was, first, designated a Zone de Télécommunications Avancée, in 1989. This was a small, 14 hectare area where, with central State support, better telecommunications services could be obtained than the surrounding conurbation. But such a relationally ‘closed’ strategy did not work, because such advantages were not significant enough for small firms to move into the zone from the more economically-favoured parts of the wider metropolis. So, following a damning evaluation report, the project was re-configured to be fundamentally open—as a centre for multiple, competing telecommunications operators and added-value services, serving the whole conurbation and beyond, via new infrastructures. Satellite ground stations were attracted in from private telecommunications firms. A new municipally-owned optic fibre grid was built to follow the City’s metro and water ducts to allow the teleport’s services to be distributed to the rest of the conurbation. And the strategy was shifted from attracting in small firms because of
better telecommunications to developing a self-sustaining economic milieu, based on high-value added consultancy in media and communications sectors.

Such a relational strategy fitted perfectly with new efforts at strategic metropolitan planning within the 86 communes of Lille as a whole, orchestrated by the second tier Communauté Urbain de Lille (CUDL). Within their spatial thinking, Roubaix was now to be the telecommunications pôle de compétence for the whole Metropolis, just as other zones were to get linked specializations and the customized infrastructure links to the rest of the Metropolis necessary to fulfil them. The spatial strategy for Lille as a whole thus became a sophisticated division of economic roles between the City’s spaces, intimately integrated with the transport, telecommunications and utility grids necessary to tie them into the wider urban fabric.

But, for Roubaix, new spatial tensions surround this role. This is because the new metropolitan infrastructure means that the satellite infrastructures, services and expertise developed so impatiently by Roubaix are also becoming an accessible resource across the Metropolis and further afield. Thus, Roubaix has lost a competitive advantage over the rest of the conurbation. The policy worry in Roubaix now is to ensure that the town captures developmental benefits, synergies and added value from this hub role, rather than being merely the passive site for largely automated technological conduits, and a small servicing staff. The challenge is to develop and sustain an innovative ‘milieu’ for new high-tech services, and the reflexive social networks and supportive services that sustain such zones, rather than becoming merely some staging post within instantaneous and arcane flows of information, data, services and capital between other innovative ‘milieux’, in competing cities and towns. The strategy illustrates that the construction of local economic development is about much more than infrastructure and customized physical space. In an increasingly reflexive economic context it is the intangible, symbolic interchanges that drive innovation and economic success. These, as many failed science and technology park strategies have found, are usually ‘organic’ in their development. Only very rarely can such milieux be constructed from scratch.

The Roubaix case, in effect, is a good illustration of the essential relational tensions between networks and territories, between bounded cities and infrastructure networks, and between the space-binding and space-transcending capabilities of new networked technologies. As infrastructure networks become more and more capable, they have ever-more profound ‘warping’ effects of space-time which can not be understood or captured within two-dimensional Euclidean development plans. Rather, as the French urban theorist Gabriel Dupuy (1991) has argued, as part of our relational understandings of place, we need to imagine an emerging, multi-layered, ‘networked urbanism’ based on complex webs and lattices of connectivity and flow, both within and between the territorial boundaries of cities and municipal jurisdictions. Such an urbanism supports ever-more extensive distanciated relations and interactions between favoured, connected spaces, whilst also excluding interstitial, non-connected ones (especially as infrastructure development becomes more market-driven) (Graham & Marvin, 1996).

Such ‘networked exclusion’, moreover, can be more subtle than apparent (Graham, 1998). A TGV train network, for example, will involve multiple space-times in its ‘impacts’. City centres will, in effect, be dramatically ‘pulled’ together; intervening small towns and rural spaces may be ‘pushed’ further apart, both relatively and, in some case, absolutely (because their existing train services may be undermined whilst they often fail to gain access to TGV stations). Similar multiple warping space-time effects characterize high capacity telecommunications grids which also concentrate overwhelmingly in linking in the ‘core’ business districts and affluent neighbourhoods of large cities, whilst often ignoring the more marginal spaces between and within them. Whilst many low-income neighbourhoods, with very low access to the basic telephone, are physically traversed by sophisticated webs of corporate optic fibre,
they have no access whatever to them (Graham & Marvin, 1996). Finally, in the context of infrastructure privatization, new metering technologies are rapidly being used to re-configure standardized infrastructure services in highly differentiated ways. Enhanced, competitive, services are increasingly offered to socio-economically affluent groups (with, for example, ‘smart’ meters and road pricing transponders), whilst low-income users, who often fail to benefit from competition, are often further ‘distanced’ electronically from infrastructure providers’ central concerns (with, for example, electronic pre-payment meters of utilities) (Graham, 1997; Graham & Marvin, 2000).

In fact, such network-territory tensions seem to characterize planning practice dilemmas at all geographical scales, from community and economic development projects right up to the strategic Trans European Networks envisaged by the EU (TENs) (Johnson & Turner, 1997; CEC, 1994). They undermine simple, linear conceptions of how infrastructure relates to urban and regional development, most especially the common notion that “infrastructure is an independent variable influencing the regional distribution of mobile investment” (Peck, 1996, p. 327). Peck shows that, in a context of sweeping globalization, privatization and liberalization in infrastructure planning, attention is now centring on the essentially relational practice of customizing both material spaces, and local-global infrastructure networks, to the particular needs of inward investing Transnational Corporations (TNCs). He notes that:

although the presence of certain basic infrastructure may be significant in attracting the initial interest of potential new investors, success in winning inward investment projects depends increasingly on the ability of public authorities to produce spaces which are customized to the changing needs of key firms. (Thus) large investors can exercise considerable control over the physical environment [...]. In some cases, public investment in infrastructure may create the ‘collective’ and ‘integrative’ basis of economic activity but some forms of expenditure can become ‘individualized’ and ‘exclusive’ to a very narrow range of users. Inward investors may be interested not only in the general modernity of the infrastructure in a region, but also in the degree to which they can exercise control over its present and future development. (Peck, 1996, pp. 327–337)

More properly, from a relational perspective, we might say that one of the key emerging roles of urban planning right across the world is to actively create customized time-space configurations for dominant global organizations (Guy et al., 1997; Graham & Marvin, 2000). To illustrate the social bias of such changing ‘power geometries’ (Massey, 1993), however, other, often more humble, demands for time-space re-configuration—such as local community demands for a disabled-friendly bus service, or new pedestrian crossings to major roads—may remain ignored, for failure of an equivalent articulation of their concerns in multiplex, time-space terms.

3.4 The Search for a New Spatial Imagination

In all three examples, simple models of socio-spatial relations have been largely abandoned, though they live on in techniques (such as transport modelling and retail appraisal), in regulatory practices (the continued pre-occupation with adjacent or site-based impacts), and in notions of ‘the local community’ and its needs. But, with the possible exception of the Lille case study, there is no coherent re-conceptualization of the urban region in multiplex space and time. Instead, strands of understanding from contemporary urban and regional geography filter into analyses of economic issues, and ecosystemic ideas from the environmental sciences flow into policy with respect to the natural environment. There are also new debates on urban form, arising from the tensions between the strategic objectives of ‘economic
competitiveness', 'social cohesion' and 'environmental sustainability'. But these debates use relatively simple conceptions of the relations between lifestyle and choices about places to live, work and visit (the compact city, corridors, deconcentration-concentration debates, etc. see Jenks et al., 1996; Breheny 1992).

The changes in planning practice are not arising because of shifts in the planners' conceptual equipment. They arise, rather, as adjustments to the unfolding realities within which the practice is located. The realities of the open, dynamic, multi-layered and dialectically-constructed 'multiplex' circuitry of the contemporary urban region is reflected not in the planners' conceptions but in the evolutionary adjustments they are having to make. Planners are responding, in Britain at least, to new socio-spatial realities. But they are not yet helping to shape ways of thinking about them. Because the discourse community which clusters around planning practice has such a confused and limited conceptual vocabulary with which to describe what they are adjusting to, planners readily slip back into earlier conceptions, or slide away into the specifications thrust on them by the dominant circuits of power, with their emphases on sectoralized, producer-driven and largely aspatial conceptions of which relationships to consider. To prevent this diminution of the role of planning in safeguarding environmental quality, and to ensure that issues of distributive justice in a multiplex world are considered, we argue that a new effort is needed to re-configure the time-space vocabulary used in planning practice in order to make it more appropriate for the multiplex dynamics of today's urban regions.

4. Conclusions: Practising Planning in a Relational Way

We argue in this paper that planning practice and much academic work by planners has, as yet, failed to transform their conceptualizations of time-space. Both remain largely unable to reflect the new, relational, non-linear and non-contiguous meanings of time, space and place in ways which allow us to understand the complexity of the contemporary world. As a result, planners have great difficulty in representing space, and explaining its nature and significance—a task of great importance after decades of the domination of economistic, aspatial conceptions of public policy agendas. But planners often also unwittingly allow the conceptions of articulate and powerful groups, who have clear ideas about their space-time parameters and relational orientations, to dominate. Too often, the relational time-spaces of powerful, corporate economic and social interests are presented as the single alternative available, to capture, present and characterize a 'place'. But, as Harvey (1996) reminds us, attempts to suggest that single time-space representations can somehow unproblematically capture the multiple space-time subjectivities of a place will inevitably have major distributive consequences. This will be especially so for those whose space-time parameters and relational orientations and aspirations are at odds with the 'vision' or representation proffered by planners and policy makers. Similarly, design-based solutions tend to narrowly crystallize the time-space requirements of dominant interests within the built form. “Given the ability of dominant interests to appropriate all architectural forms, there can be no such thing as an 'emancipating design'; only the activity of design has any such potential" (King, 1996, p. 247, original emphasis).

We suggest that the resources for a re-conceptualization of planning theory and practice are available in the literature reviewed in the second section of this paper. Resources also exist in the innovative responses which are emerging in practice, as planners and communities struggle to make sense of the realities which face them. These emphasize the importance of four interrelated points, which each can be directly translated into suggestions for planning practice.
First, planning must consider relations and processes rather than objects and forms. The extent to which a proposed form, such as 'compact cities', 'urban villages' or 'multi-functional zones' will lead to particular social, economic and cultural behaviours needs to be demonstrated in terms of the relational dynamics of specific instances, not assumed as a universal generalization. Such generalizations about desirable urban forms (such as the avoidance of 'sprawl', or latent assumptions about the inevitable decay of effects over linear distance), built from the analysis of western European and American urban dynamics at a particular period in their development, need to be replaced by polyvalent, pluralistic and culturally-sensitive appreciation of the relation between social process and urban form. Such a shift in assumptions should re-cast the appraisal techniques now used to evaluate the impacts of projects and policies, to foster the identification of the multiplex relations on which a project draws and into which it is inserted.

Second, planning practice must stress the multiple meanings of space and time. This requires careful attention to the representation of policies and projects in map form, and the expression of time periods. Where two-dimensional representation and fixed time periods (e.g. the '5-year' plan, the 'structure plan period') are used, clarity is needed with respect to whose space and time this is and why it is helpful to use the particular form of expression. Project appraisal and policy development need to be informed by an explicit recognition of the range of spatialities and temporalities in which they may be inserted, or which policy seeks to shape. Physical adjacency cannot be used as a proxy for identifying meaningful relationships and impacts of a project or a policy. The time-scale of a landowner is different to that of a small builder. People's spatial reach varies in daily, weekly, annual and lifespan time. Some companies may be committed to a locale for a year or two. For others, the locale is their permanent site of production, and they may be planning strategically over a timespan of decades. Ecosystemic relations tie places into planetary relations over long time-scales and into the micro-relations of species habitats. This implies the need for careful assessment of the many spatial and temporal experiences of a city, and how these flow across and into each other in shaping a place and filling it with value.

Third, planning practice needs to represent places as multiple layers of relational assets and resources, which generate a distinctive power geometry of places. This emphasizes the need to recognize that privileging one experience of space and time (e.g. TGV stations, optic fibre grids, mega airports, etc.) may necessarily undermine other, equally important, but less powerful interests. The multiple layering is thus neither neutral nor value-free. The rich, multiple time-space fabrics of dynamic urban environments need to be carefully nurtured through fostering the development of relational exchanges across the layers, reducing the blockages and exclusionary practices which seal dominant groups into narrow relational networks and marginalize many others. This requires efforts in imagining how planning processes can engage with many spaces and times, for example, providing world-class networked infrastructures and more basic community-level opportunities to engage and act at a distance (such as kerb-level crossings, traffic management, telephone and information access, disabled access, multi-lingual services).

Finally, in this multiplex world, planning practice should recognize how the relations within and between the layers of the power geometries of place are actively negotiated by the power of agency through communication and interpretation. This focuses attention in part on the development of skills in the kind of conflict mediation and consensus-building which leaves behind mutual understanding of different points of view, rather than increasing the more entrenched divisions between winners and losers. It also emphasizes the importance of recognizing the many value systems at play in mediating the times and spaces of the city. Planners need not only to facilitate the recognition of these but to use plan-making exercises to help build a new layer of relational resources at the level of the 'place of the plan', to
provide social resources, widely-linked to the diverse relational webs which transect a place, through which to foster relational innovation and richness, discard outdated assumptions and mediate inevitable conflicts without allowing one-dimensional viewpoints to regain their dominance.

In this context, therefore, planning work has an important role in helping to frame the communicative and interpretive processes through which collective meanings of space and time are negotiated and maintained, for the purposes of mediating the challenges of co-existence in ‘places’ of shared space-time (Healey, 1997a). This is an important and exciting role for planners. It responds to the demand in many policy arenas at the present time for policy initiatives which take an ‘holistic’ or ‘integrated’ viewpoint of places. By this is meant not merely a search for a territorial and place-based perspective on economic, social and environmental relations, in contrast to the dominant sectoral emphasis which characterizes the policy organization of the nation state. It also demands a point of view which displaces that of the ‘producers’ of policy by that of the ‘users’ of policy. By this we mean the point of view of people living multiple everyday lives, firms conducting multiple business relations, and ecosystems with enormously varied relationships.

At the moment, though, these points of view are being brought into planning practice simply through the power of voice. We argue that the planning field should also be pro-active in bringing these points of view into planning policy discourses. Most importantly, planning theory and practice need to develop fully relational views founded on understandings of how planning processes and effects are woven into the complex and multiple space-times of place. But to achieve this, much more work is needed to fill-out the new perspectives generated by this paradigmatic sea-change in our conceptions of socio-spatial relations. It is a first step to recognize the difference between a uniplex and multiplex world, and to replace a functional order with a relational one. What is now needed is a collaborative effort between the ‘theorizers’ and the ‘practitioners’ to re-configure the practices of planning, as actions and as vocabulary, to help generate the innovative dynamic which will respond to the growing social demand for place-focused public policy.

References


MULGAN, G. (1997) 


THRIFT, N. (1996b) ‘Not a straight line but a curve’: or, cities are not mirrors of modernity, Mimeo.


