for space

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the elusiveness of place

Migrant rocks

One way of seeing ‘places’ is as on the surface of maps: Samarkand is there, the United States of America (finger outlining a boundary) is here. But to escape from an imagination of space as a surface is to abandon also that view of place. If space is rather a simultaneity of stories-so-far, then places are collections of those stories, articulations within the wider power-geometries of space. Their character will be a product of these intersections within that wider setting, and of what is made of them. And, too, of the non-meetings-up, the disconnections and the relations not established, the exclusions. All this contributes to the specificity of place.

To travel between places is to move between collections of trajectories and to reinsert yourself in the ones to which you relate. Arrived at work, in Milton Keynes, I rejoin debates, teams meeting to discuss teaching, a whole cartography of correspondence, ongoing conversations, pick up where I left off the last time I was ‘here’. Back in London at night I emerge into the energising bedlam of Euston Station and go through the same process again. Another place, another set of stories, I catch the headlines on the Evening Standard (what’s been going on?). Leaving the station, I search the sky and the pavements, wondering what the weather’s been like (will my garden be crying out for water?). Finally, arrived back in my flat, I check the post, the telephone messages, find out ‘what’s been happening here’ while I’ve been away. Bit by bit I reimmerse myself into (just a few of) the stories of London. I weave together the stories which make this ‘here and now’ for me. (Others will weave together different stories.) Sometimes there are attempts at drawing boundaries, but even these do not usually refer to everything: they are selective filtering systems; their meaning and effect is constantly renegotiated. And they are persistently transgressed. Places not as points or areas on maps, but as integrations of space and time; as spatio-temporal events.
Bassenthwaite. The hotel where we were staying stands on a graciously sweeping road which takes its shape not just from some designer’s preference for curvaceous avenues, but from following the foot of a drumlin. Ancient ice ages plainly readable in the human landscape. One thing it might evoke is the antiquity of things. But another is almost the converse: that today’s ‘Skiddaw’ is quite new.

I knew, too, that the rocks of which Skiddaw is made were laid down in a sea which existed some 500 million years ago. (They are composed from the erosion of still older lands.) And ‘not long’ afterwards (in the same – Ordovician – geological period) there was volcanic activity. There are reminders of that tumultuous era too in the present-day landscape. Today’s mountains bear no relation to the ancient volcanoes, but these more resistant volcanic rocks to the south give rise to a markedly different scenery of cliffs and waterfalls. And for those who know how to spot them, there are outcrops of lavas and tuffs. Some volcanic rocks form the cores of drumlin-shaped hills: the remnants of volcanic activity from over 400 million years ago, plastered millions of years later by debris deposited by the retreating glacier (Boardman, 1996). A long and turbulent history, then. So much for ‘timelessness’.

Such observations are not so startling. (Two hundred years ago, before geologists such as Charles Lyell, they would have been shocking if not incomprehensible. The opening up by geology and palaeontology of that deep history challenged prevailing notions of time, shook established Judeo-Christian religious thinking ... and made possible a different reading of landscape and place.) Reading history in the rocks is not so revelatory today. Even Baudrillard refers to ‘the remorseless eternity’ of geology (1988, p. 3) as he helts across the ‘American’ desert (though he doesn’t do much with it, doesn’t explore how it could challenge (rather than confirm) the notion of depthlessness, just as his use of the term ‘America’ ignores the history of that name and his complicity in its appropriation by the USA alone). What this geological history tells us is that this ‘natural’ place to which we appeal for timelessness has of course been (and still is) constantly changing.

But it’s not merely a question of time: that history had a geography too. Sitting in our room at night, hemmed in by the (apparent) steadfastness of nature in the dark outside, and poring over local geology, the angle of vision shifted. For when the rocks of Skiddaw were laid down, about 500 million years ago, they were not ‘here’ at all. That sea was in the southern hemisphere, about a third of the way south from the equator towards the south pole. (Rude shock this, for Skiddaw is a mountain which, in English imaginations, is inextricably of ‘the North’. I grew up singing ‘Hills of the North rejoice’.)

Geological imaginations have their histories too, of course; what follows is what I understand of currently hegemonic ones. On the planet on which
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figure 12.2 The Iapetus Sea: where the Skiddaw slates were laid down (after Windley and Cowey)

this sea existed, where the slates were deposited, floated various bits and assemblages of the continents which we have today. The sea is now (that is, by current geologists, tectonicists et al.) called Iapetus, and it lay between two of these ancient continents (the volcanic activity was sparked off as they moved). The whole thing has subsequently floated about the planet as the continents rearranged themselves. The bit that we know today as the slates of Skiddaw crossed the equator about 300 million years ago. (And this in turn was way before 'the Americas', although of course they were not called that then - there were still 450 million or so years to go before Hernán Cortés would cross the Atlantic and Amerigo Vespucci would be born - were beginning to break away from the great old rock plateaux of what we now call southern Africa. Anyway, it was only relatively recently that there began to be an Atlantic for Hernán Cortés to cross.) And it was a mere 10 million years ago that the rocks of the present-day mountain rose above the surface of the ocean. The 'history' represented in the geological series in figure 12.1b erases mobile geography. And it wasn't as though I hadn't 'known' all this; what startled was the shift in imagination - the real appreciation of it.

Nor was this yet in the shape of what we might propose as 'a mountain' (Latour, 2004), still less one called Skiddaw. That took, as the rocks were moving

figure 12.3 Continental drift from the Cambrian to the Tertiary (after Smith Briden and Drewey, 1973)
Source: © The Palaeontological Association

northwards, great periods of folding and contortion, injections of igneous rocks from below, periods of differential erosion, overlay by other strata and their folding and denudation, shifts in altitude.

When the morning came I could not but look at Skiddaw in a different light. Its timeless shape is no such thing. Nor has it been 'here' for ever. Nor again is this a matter of past history alone, for the movement of the continents of course
continues (the present is not some kind of achieved terminus) – on average they drift a few centimetres a year: about the rate at which our finger nails grow. And the whole of north west Britain is still rising in relief after the removal of the great weight of ice (while the south east tips compensatorily down). Erosion continues apace. In figure 12.1 the space and the time of this place are separated. The geological series shows ‘time’, but with no indication of the spatial shifts involved. The geological sketch map, as a classic map, shows a surface as given, but with no indication of the fact that this is a conjunction in movement.

Immigrant rocks: the rocks of Skiddaw are immigrant rocks, just passing through here, like my sister and me only rather more slowly, and changing all the while. Places as heterogeneous associations. If we can’t go ‘back’ home, in the sense that it will have moved on from where we left it, then no more, and in the same sense, can we, on a weekend in the country, go back to nature. It too is moving on.

‘Nature’, and the ‘natural landscape’, are classic foundations for the appreciation of place. That literature is too extensive to be addressed here but it does raise important issues. Arif Dirlik (2001) has written thoughtfully about the connection, arguing that ‘place is the location ... where the social and the natural meet’ (p. 18). For him one of the significant implications of this is that it lends place a fixity: Responding, sympathetically, to my own conceptualisation of place, and to those of others, he none the less argues that it can be ‘overly zealous, I think, in disassociating place from fixed location. This is where ecological conceptions of place, which are almost totally absent from these discussions (and marginalized by them in the preoccupation with the “social construction of space”), have some crucial insights to contribute by once again bringing nature ... into the conceptualization of place’ (p. 22). The point about the exclusive focus on human social construction is well taken, and coincides with my intention here. However, Dirlik’s reason for bringing nature back in is to emphasise ‘the fixity of places’ (p. 22), to provide a foundation. And even while he argues that this ‘is not the same thing as immutable fixity’ (p. 22), the emphasis is none the less on fixity. There is again a serious point here – the vast differences in the temporalities of these heterogeneous trajectories which come together in place are crucial in the dynamics and the appreciation of places. But in the end there is no ground, in the sense of a stable position, and to assume there is to fall into those imaginations criticised in Chapter 9 for celebrating a mobile culture while holding (or trying to hold) nature still.

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**Legend:**

1 = deposition of Skiddaw group; folding and erosion; deposition of Borrowdale Volcanic Group
2 = folding and erosion; deposition of Coniston Limestone Group and Silurian rocks
3 = severe folding and great erosion; intrusion of plutonic igneous rocks; deposition of Carboniferous rocks
4 = gentle folding and considerable erosion; deposition of Permian and Triassic rocks
5 = gentle uplift, producing an elongated dome and resulting in radial drainage; erosion to present form

**Figure 12.4 The Travels en route. Diagrammatic sections to illustrate the building of the Lake District (after Taylor et al., 1971).**

Source: Goudie, A. (1990)
The event of place

And yet, if everything is moving where is here?

Nor, of course, is it just humans and continents that are on the move. Sarah Whatmore has written of the ‘mobile lives’ of animals and plants – on scales that vary from the Lilliputian travels of a dung beetle to the global navigations of migrating whales and birds, ... of plant seeds journeying in the bellies of animals’ (1999, p. 33; see also Clark, 2002; Deleuze and Guattari, 1987). The Lake District has been repopulated, through the movements of animals, plants and humans, in the few thousand years since the last ice age. (So what is indigenous here?) Arctic terns migrate each year between the polar regions; the swallows which nest each year in my road in Kilburn (arriving some time between May Day and the Cup Final) are now as I write this (in January in London) over 7000 miles away in Southern Africa. And the long evolution and patterns of bird migration has been influenced by the drifting of the continents and by the periodic advance and retreat of the succession of ice ages (Elphick, 1995). It is common now to understand ‘earth and life’ as changing and evolving in relation to each other (see Open University, 1997), to challenge in some way the causal separation of biology and geology. That the organic can affect the tectonic, and so forth. Barbara Bender (personal communication) reflects, when considering Lestricken in south west England, that ‘Landscape refuses to be disciplined. They make a mockery of the oppositions that we create between time (History) and space (Geography), or between nature (Science) and culture (Social Anthropology)’. ‘History is no longer simply the history of people, it becomes the history of natural things as well’ (Latour, 1993, p. 82). Reading Bruno Latour hints at how social scientists can dispense with our awed of natural science’s ‘truth’ while still (perhaps even in consequence) integrating Skiddaw and weekend tourism as histories/trajectories whose co-formation participates in the event of Keswick. As the train cuts through the hilly hills (the chalk laid down about 100 million years ago and somewhat to the south – see figure 12.3) on the way from London to Milton Keynes it is a tiny thing on a planet spinning on its axis and circling the sun. This corner of the country sinking back down over the millennia since the last ice age. And bouncing gently a couple of times a day, as the tide goes in and out. Cornwall to the west goes up and down by 10 centimetres with each tide. There is no stable point.

The various poles have wandered too, and have flipped between each other. Polaris is the northern pole star now, but it was not so when the pyramids were built, between four and five thousand years ago. (I know we all ‘know’ this; the point is to feel it, to live in its imagination.) Just relative movement.

The swallows which leave Kilburn in August do a round trip of up to 15,000 miles, and most of them do not land even once during the 9 months they are away.

If there are no fixed points then where is here? A thing we now call Skiddaw (even the naming won’t stay still, Macpherson as recently as 1901 referring to it as ‘Skiddaw’ or Skidda’, p. 2) slowly (from my point of view) taking form, still rising, still being worn down (and the constant transp of hiking boots, not to mention mountain bikes, is a significant form of erosion in the Lake District), still moving on; my sister and I just here for a long weekend, but being changed by that fact too. ‘All the essences become events’; place as Real as Nature, narrated as Discourse, collective as Society, existential as Being’ (Latour, 1993, pp. 82, 90). And space and time, together, the outcome of this multiple becoming. Then ‘here’ is no more (and no less) than our encounter, and what is made of it. It is, irretrievably, here and now. It won’t be the same ‘here’ when it is no longer now.

There is a consensus that the angle of tilt [of the Earth’s axis] has changed significantly over geological time, but in a somewhat chaotic manner. (Open University, 1997, vol. 1, p. 80)

‘Here’ is where spatial narratives meet up or form configurations, conjunctures of trajectories which have their own temporalities (so ‘now’ is as problematic as ‘here’). But where the successions of meetings, the accumulation of encounters and encounters build up a history. It’s the returns (mine, the swifts’) and the very differentiation of temporalities that lend continuity. But the returns are always to a place that has moved on, the layers of our meeting intersecting and affecting each other, weaving a process of space-time. Layers as accretions of meetings. Thus something which might be called there and then is implicated in the here and now. ‘Here’ is an intertwining of histories in which the spatiality of those histories (their then as well as their here) is inescapably entangled. The interconnections themselves are part of the construction of identity. What Gupta and Ferguson (1992) call ‘a shared historical process that differentiates the world as it connects it’.
I must insist here, quite passionately, on one thing. This is not, as it is on occasions understood to be, a position which is hostile to place or working only for its dissolution into a wider space. Nor is it a deconstructive move, merely exposing an incoherence within an imagined essence (nor indeed is it proposing that what is at issue is purely within the discursive). It is an alternative positive understanding (DeLanda, 2002). This is certainly not to argue against ‘the distinctiveness of the place-based’ nor – and most particularly – is it to declare ‘that there is nothing special about place after all’ (Dirlik, 2001, pp. 21 and 22). Quite to the contrary: but what is special about place is not some romance of a pre-given collective identity or of the eternity of the hills. Rather, what is special about place is precisely that thrown-togetherness, the unavoidable challenge of negotiating a here-and-now (itself drawing on a history and a geography of thens and thers); and a negotiation which must take place within and between both human and nonhuman. This in no way denies a sense of wonder: what could be more stirring than walking the high fells in the knowledge of the history and the geography that has made them here today.

This is the event of place. It is not just that old industries will die, that new ones may take their place. Not just that the hill farmers round here may one day abandon their long struggle, nor that that lovely old greengrocers is now all turned into a boutique selling tourist bric-à-brac. Nor, evidently, that my sister and I and a hundred other tourists soon must leave. It is also that the hills are rising, the landscape is being eroded and deposited; the climate is shifting; the very rocks themselves continue to move on. The elements of this ‘place’ will be, at different times and speeds, again dispersed.

(And yet, in its temporary constellation we (must) make something of it.)

This is the event of place in part in the simple sense of the coming together of the previously unrelated, a constellation of processes rather than a thing. This is place as open and as internally multiple. Not capturable as a slice through time in the sense of an essential section. Not intrinsically coherent. As Low and Barnett (2000) argue, many concepts of place are underwritten by ‘a notion of uniform time’ such that places are conceived of ‘as sites where a host of different social processes are gathered up into an intelligible whole’ (p. 58).

It is an assumption of coherence which is buttressed by that modernist imagination of space as always-already territorialised which was discussed in Chapter 8. To guard against the presumption of coherence (the assumption that all these different constituent processes will somehow coordinate), they argue for working with the term ‘conjunction’. “Thinking conjuncturally” suggests a shutting back and forth between different temporal frames or scales to capture the distinctive character of processes which appear to inhabit the “same” moment in time (p. 59; see, for one attempt at a working through of this in the context of place-definition, Allen et al., 1998). Likewise Dodgson (1999) writes of “the false synchronicity of the “moment in being”, its deceptive flatness” (p. 615). Nor is this a de-structuring (except – which is post-structuralism’s point – to some existing imaginations). It is simply a coming together of trajectories.

But it is a uniqueness, and a locus of the generation of new trajectories and new configurations. Attempts to write about the uniqueness of place have sometimes been castigated for depoliticisation. Uniqueness meant that one could not reach for the eternal rules. But ‘politics’ in part precisely lies in not being able to reach for that kind of rule; a world which demands the ethics and the responsibility of facing up to the event; where the situation is unprecedented and the future is open. Place is an event in that sense too.

Reconceptualising place in this way puts on the agenda a different set of political questions. There can be no assumption of pre-given coherence, or of community or collective identity. Rather the thrown-togetherness of place demands negotiation. In sharp contrast to the view of place as settled and pre-given, with a coherence only to be disturbed by ‘external’ forces, places as presented here in a sense necessitate invention; they pose a challenge. They implicate us, perform, in the lives of human others, and in our relations with nonhumans they ask how we shall respond to our temporary meeting-up with these particular rocks and stones and trees. They require that, in one way or another, we confront the challenge of the negotiation of multiplicity. The sheer
fact of having to get on together; the fact that you cannot (even should you want to, and this itself should in no way be presumed) 'purify' spaces/places. In this throwntogetherness what are at issue are the terms of engagement of those trajectories (both 'social' and 'natural'), those stories-so-far, within (and not only within) that conjuncturality. As Donald (1999) writes in his more specific consideration of cities as places, politics is the (ever-contested) question of our being-together. This is one part of the 'responsibilities' of place to which Part Five will turn.

(Geographies of knowledge production 2: places of knowledge production)

'Science parks' are among the most potent icons of the knowledge economy which, we are constantly told, characterises today's, and tomorrow's, global capitalism. They are among the carefully chosen and designed sites of the production of an electronically connected world (Chapter 9). They are also one element in an emerging, violently unequal, twenty-first-century geography of a particular form of knowledge. Demarcated, landscaped enclosures dedicated to the production of science (usually, specifically, commercialisable science), these are 'places' of a kind; constructed places, coherent, planned (ironic, isn't it, in this soi-disant age of anti-plan).

Easily recognisable, replicated over and over, they are scattered around the planet like flags on a map, each witness to some local/regional/national desperation to create another Silicon Valley, jump-start another Cambridge Science Park, or at least attract a few bits of 'high technology'. The requirements, to be able to play this industrial location game, are: an enclosed and separate space; a landscaped environment, to give off some evocation of 'quality'; a publicity blurb which emphasises the nearby university (as elite-sounding as possible); and a picturing of the wider environmentally attractive area within which it is set (where 'environmentally attractive' stands for a very particular aesthetic favouring a tamed suburban 'rurality', and a definite absence of the ruins of nineteenth/twentieth-century industrialisation). Preferably, since these knowledge-intensive sectors have a tendency to cluster, you need also to be able to demonstrate to potential investors that others like them have already made this choice (they would not want to be pioneers, or take a risk). These are some of the 'location factors' you will need to parade in order to attract this part of the new knowledge economy (Massey et al., 1992).

All this is well known, and some of the contradictions of it are immediately evident. The knife-sharp class-ridden nature of it all, and the inevitably greater success in areas precisely not 'marred' by the decline of previous eras, mean that these agents of economic regeneration produce 'regeneration' precisely where it is least needed. And so on.¹⁹

There is another way of reading these constructed places. Entangled and enfolded within them is a multiplicity of trajectories each of which has its own spatiality and temporality; each of which has been, and still is, contested; each of which might have turned out quite differently (yet where the intersection of these histories has often served to reinforce the existing lines of dominance).

The particular form of the proliferation of the division of labour within industry which resulted in that (so well known it seems natural) separation of 'conception'
from 'execution' was propelled by forces both of class and of a particular notion of knowledge. Knowledge as remote from the shop floor, for instance. Knowledge as separable rather than tacit; distanced rather than embedded and embodied. It resonates with the abstractions discussed in Part Three: 'the way in which a science, or a conception of science, participates in the organization of the social field, and in particular induces a division of labor, is part of that science itself' (Deleuze and Guattari, 1988, pp. 368–9). The separation and the class nature of this division of labour were sharply reinforced by geographical division and distance: a dispersion of industrial sites emerged, with clearly distinct characteristics (a particular spatial division of labour), the spatiality being integral to the proliferation of divisions among the workers and the reinforcing of their differentiated characteristics.  

It is a recapitulation of an old story in Western history: the spatial seclusion of the desert for early Christian thinkers, the emergence of monasteries as elite places of knowledge production, the medieval universities. All of them places which crystallize through spatialization a separation of Mind from Body, a notion of science as removal from the world. A material spatialization of Stengers' account of science's dismissal of mere phenomena, and of Fabian's tale of the distancing of knowing subject from object of knowledge. Here in the places of high technology these structurings of the knowledge relation are deeply interwoven with those of class, and the two together are reinforced through spatial form.

That is one strand of the spatial histories these places engender. Another is that, through Western history, they have been part and parcel of the struggle around the creation of intelligible genders, of certain forms of 'masculine' and 'feminine'. Over and over again the establishment of these places was bound up with the distinction of genders and the expulsion of women. Brown, writing of one of the earliest of such places, tells that 'Fear of women fell like a bar of shadow across the paths that led back from the desert into the towns and villages' (1989, p. 242), and David Noble in his wonderful account of this wounding history over two millennia, writes of 'the male monastic flight from women' (1992, p. 77) and documents in detail the embattled continuation of this flight into the university and into modern science.  

(One is drawn to reflect on the postmodern return to the desert, or at least to the figure of the desert — the space of an absence of women?) A long history, in fact, not just of the exclusion of women but of the contested constitution of what it was going to mean to be a (certain kind of) man or woman. The 'masculinity' of the world's science parks today is not just a product of, nor can it be measured by, the fact of the overwhelming dominance on them of male employees. It is an outcome of a longer deeper history of gender construction which itself was/is spatially embedded within the making of defensive, specialised, 'places of knowledge'.

And finally (for our purposes here) a third trajectory: these places of knowledge production were all also elite places of the production of legitimate, recognised, authorised knowledge. For there were always, and are still, other forms of knowledge: in the society that lay beyond the walls, in the villages along the edges of the desert, on the shop floor of the places of production banished to the geographical 'periphery'. The time-spaces of medieval monasteries, the old universities and today's science parks are all of them moments in the interweaving of the histories of the legitimization of a certain form of knowledge production, the generation and maintenance of a masculinised caste which specialises in the definition and production of that knowledge, and the moulding of that kind of masculinity itself.

These trajectories together have propelled the exclusions on which science parks have been constituted. They are, moreover, interwoven histories each of which has been contested. In that sense these spaces are both an achievement and still open to challenge (see Chapter 5). Noble (1992) recounts in detail the battle over gender, and the struggle to maintain an authorised elite can be traced from the battles within early Christianity, through Paracelsus, through the riot of dissidence over centuries in Europe (Lollards, Anabaptists, Muggletonians, early Swedenborgians, Brownists, Baptists, Quakers, Ranters ... ) to the Lucas Aerospace workers of the final decades of the twentieth century. The times of these places are many. Science parks embody not only recent economic calculation but also long histories of social struggle, over the nature and ownership of knowledge, over the meanings and delineations of gender, over the material establishment in lived relations of the philosophical postulation of an opposition of Mind and Body. These things are built into the very fabric of such places as the physical and social precipitates of particular intersections of a multiplicity of trajectories. And, in spite of their neatly manicured appearance, the histories they embody do not coalesce into a simple coherence. The contests in the histories they embody erupt at different moments, dislocating in different ways.

These are particular, and particularly powerful, spatial formations. They articulate in physical form both the social spatiality of knowledge production and an imagined spatiality of the knowledge relation. It is a longer and more multiple story than the one told by Stengers; one in which the choice between Einstein and Kepler was but an episode; and it is a history in which geography was crucial.

These, then, again, are places as temporary constellations where the repercussions of a multiplicity of histories have been woven together. Knowledge production and legitimization function here as practices which generate space-times (as well as concepts of space-time). Place as event. Ironically, these high-tech places are controlled and planned events. Their components are disciplined, down to the enrolment of the non-human, in suitable, domesticated forms ('tasteful' landscape, watered lawns), to bolster their cachet. 'Ironically' because these 'places of innovation' seem designed to limit their potential character as places as innovation. And yet of course, in the end, the potential event of place remains. The containment is impossible.
This was a position which subsequently generated a fascinating debate which touched on the relation of ‘space in general’ to the specific space of a building, the role of architects and the nature of chance itself. On the one hand buildings were to leave people free both for chance encounters and to create what they wanted of the space (these two things tended to be elided - perhaps because of the conceptual difficulty, in this period, of really taking ‘chance’ seriously? - see below and later in the chapter). On the other hand, there were clearly patterns of behaviour which architects might study and enable. Emphasis on one or the other of these was an element in arguments between the more anarchistic COBRA and Team 10. As Sadler writes ‘Team 10 was right to pay attention to “patterns of association”, a situationist might have argued, but it was wrong to then congeal those patterns into fixed “place-forms”. The choices left to the inhabitants of a Team 10 structure, as they scattered along its burrows, had in effect already been made by the designers’ (Sadler, 1996, p. 32). It was a clash over the role of the architect: ‘the situationists asking architects to renounce their master visions ... Team 10 asking architects to press on until the very fundamentals of habitat had been discovered’ (p. 32). But it was also a clash over the nature and reality of chance and specifically the chance of space. Had Team 10 pursued their path to the end there might have been no undecidability left. Van Eyck himself followed the Team 10 route and the work of structuralist anthropology: ‘If human “patterns of association” were governed by the basic structure of primordial relations, then so would be their container, the architectural place-forms’ (Sadler, 1998, p. 171).

I am summarising only the lines of Lechte’s argument most relevant to the concerns here.

It can be argued that while the long-term reconceptualisation of physics leads from examination of deterministic irreversible processes to the recognition of stochastic and irreversible ones, quantum mechanics has achieved only an intermediate stage on this journey. It includes probability but not irreversibility. Prigogine and Stengers (1984) wish to push it on to do so, but others - they say - wish to retain classical orthodoxy. See also the argument of Thrift (1999).

For a fuller examination of the time-space of this journey see Massey, 2000;

As Rabasa points out (1993, p. 44), de Certeau is conscious that his approach is one with a particular history, and that it has effects (de Certeau, 1988, pp. 211–12).

This quotation continues: ‘This objectification enabled appropriation of the territories’ (p.52). Here I would part company with him. Appropriation also required canons and horses and other material supports. Rabasa’s analysis seems to remain within the discursive (see 1993, pp. 224–5, footnote 6).

It is also an argument which very constructively challenges the simplistic formulation which would have it that current tendencies towards a return to place, and towards a defensiveness of the local, are a product only of a reaction to the invasive and disordering processes of globalisation.

The moment of terminology here is interesting: ideas of complexity, complexity theory, the metaphors of complexity. The instability is indicative of the wider point being made. Thrift ‘assume[s] that complexity theory is deeply metaphorical’ (1999, p. 36).

The argument here refers to the nonhuman as well as the human. As Sarah Whatmore points out, ‘Efforts like the UN Convention on Biological Diversity to fix their place in the world as “indigenous species” within “natural habitats” are a no less political regulation of mobile lives than the paraphernalia of passports and border control’ (1999, p. 34). ‘Atmomatic spaces’ for ‘nature’ too?

Thanks to Christine Marsland for persistent questioning, and long conversations, about all this.

The term is evidently problematical. Not only is the whole division between social (meaning human) and natural both contested and constructed and (perhaps) dubious, but - as I was told severely by an earth scientist, while trying to think through these arguments - ‘Europe’s landscape has been totally artificial for over 4000 years’; and there is plenty of ‘nature’ within the city too. The fact of nature/ culture reinforces my argument. The spatio-temporal specificity of such attitudes is marked. Clark (2002) shows convincingly how, just as industrialising and urbanising Europe ‘grew ever more distant from the flux and volatility of the biophysical world ... an almost inverse experience characterized the temperate periphery, where it was difficult for anyone to fully detach themselves from the “flows of grass, water, herds” and other biometrical elements’ (pp. 116–17).

I am grateful for help with all this to John Thomas (of King’s College, London), Jim Rose (of Royal Holloway) and Steve Drury and Nigel Harris from Earth Sciences at the Open University. See also Windley, 1977.

‘Layers’. In previous work I have used the term layers, but it was persistently read as ‘a geological metaphor’ (see the commentary in Massey 1995c; Postscript in the second edition). On this reading the layers have little temporality and ‘still less mutual interaction’ which wasn’t what I meant at all. My critique of ‘palimpsest’ rehearse some of the arguments.

In such a way, being ‘right here’, ‘here and now’ is the encounters (say) rather than the encounter ‘taking place’ here and now. There are resonances here of Heidegger’s conceptualisation of entity and placing. As Elder (2001) points out, Heidegger came to argue that we must learn to recognise that things in themselves are place and not merely occupy a place (cited in Elder, p. 90). This was one aspect of Heidegger’s struggle to conceive of space in a manner resolutely non-Cartesian; to get away from an imagination of space as extension where that implies an external geometric. It was a reconceptualisation famously integral to the ‘turn’ in Heidegger’s work. But Elder argues that the turn involved also a second move, and this seems more problematical. Elder’s argument here is that, having shifted from his earlier prioritisation of time over space, Heidegger first opposed space and place but then moved to reconceptualise space as place. In the earlier formulation space was set apart as the sphere of the abstract geometry of extension, and both opposed to place and rejected. In the later work, space itself came to be thought through in relation to place(s). Although in principle perhaps it need not, this manner of the placing of space both makes it more difficult to imagine space as relational (relations between distant places, Castells’ space of flows, today’s spaces of globalisation) and works against an understanding of place itself (Orf) as open, porous, on the move, a meeting of trajectories.

In fact, one of the conceptualisations of place which they cite in exemplification of this point is my own (in Massey, 1991a). ‘A global sense of place’. I think there may have been some misunderstanding here: at any rate we would seem to be in agreement over the internal dispositional multiplicities of place.

For an exploration of these lines of enquiry see Massey, Quintas, and Wield, 1992.

On the ‘pure form’ of UK Science Park full-scale production was explicitly forbidden. On spatial divisions of labour see Massey, 1995c.

For a more detailed attempt to spatialise Noble’s account see Massey, 1997a.

The Lucas Aerospace workers’ alternative plan drew upon innovative ideas of both tacit knowledges and alternative products (see Winwright and Elliott, 1982).