

Capital Evolves

The forces unleashed by the rise of capitalism have re-engineered the world many times over since 1750. Flying over central England in 1820, we would have seen a few compact industrialised towns (with small factory smokestacks belching forth noxious fumes) separated by large areas of agricultural activity where traditional forms of rural life were preserved in scattered villages and farmsteads, even as lords of the manor waxed poetic about the new agricultural practices that underpinned rising agricultural productivity (and rising money rents). Compact industrial centres with names like Manchester and Birmingham were linked with each other and to the main commercial port cities of Bristol and Liverpool, as well as to the teeming capital city of London, by threads of dirt turnpikes and skinny slivers of canals. Barges full of coal and raw materials were laboriously towed along the canals either by sweating horses or, as Marx records in *Capital*, by almost starving women. Locomotion was slow.

Flying over the Pearl River delta in 1980, one would have seen tiny villages and towns with names like Shenzhen and Dongguan nestled in a largely self-sufficient agrarian landscape of rice, vegetable, livestock production and fish farming, socialised into communes ruled with an iron fist by local party officials who were also carrying an 'iron rice bowl' to guard against the threat of starvation.

Flying over both these areas in 2008, the landscapes of sprawling urbanisation below would be totally unrecognisable, as would be the forms of production and transportation, the social relations, the technologies, the ways of daily life and the forms of consumption on the ground. If, as Marx once averred, our task is not so much

to understand the world as to change it, then, it has to be said, capitalism has done a pretty good job of following his advice. Most of these dramatic changes have occurred without anyone bothering first to find out how the world worked or what the consequences might be. Again and again the unanticipated and the unexpected has happened, leaving behind a vast intellectual and practical industry engaged in trying to clean up the messy consequences of what was unknowingly wrought.

The saga of capitalism is full of paradoxes, even as most forms of social theory – economic theory in particular – abstract entirely from consideration of them. On the negative side we have not only the periodic and often localised economic crises that have punctuated capitalism's evolution, including inter-capitalist and inter-imperialist world wars, problems of environmental degradation, loss of biodiverse habitats, spiralling poverty among burgeoning populations, neocolonialism, serious crises in public health, alienations and social exclusions galore and the anxieties of insecurity, violence and unfulfilled desires. On the positive side some of us live in a world where standards of material living and well-being have never been higher, where travel and communications have been revolutionised and physical (though not social) spatial barriers to human interactions have been much reduced, where medical and biomedical understandings offer for many a longer life, where huge, sprawling and in many respects spectacular cities have been built, where knowledge proliferates, hope springs eternal and everything seems possible (from self-cloning to space travel).

That this is the contradictory world in which we live, and that it continues to evolve at a rapid pace in unpredictable and seemingly uncontrollable ways, is undeniable. Yet the principles that underpin this evolution remain opaque in part because we humans have made so much of this history more in accord with the competing whims of this or that collective and sometimes individual human desire, rather than according to some governing evolutionary principles of the sort that Darwin uncovered in the realm of natural evolution. If we are

to change this world collectively into a more rational and humane configuration through conscious interventions, then we must first learn to understand far better than is now the case what we are doing to the world and with what consequences.

The historical geography of capitalism cannot be reduced, of course, to questions of capital accumulation. Yet it also has to be said that capital accumulation, along with population growth, have lain at the core of human evolutionary dynamics since 1750 or so. Exactly how they have done so is central to uncovering what the enigma of capital is all about. Are there evolutionary principles at work here to which we can appeal for some sort of illumination?

Consider, first, capitalist development over time, laying aside for the moment the question of its evolving spatial organisation, its geographical dynamics and its environmental impacts and constraints. Imagine, then, a situation in which capital revolves through different but inter-related 'activity spheres' (as I shall call them) in search of profit. One crucial 'activity sphere' concerns the production of new technological and organisational forms. Changes in this sphere have profound effects on social relations as well as on the relation to nature. But we also know that both social relations and the relation to nature are changing in ways that are in no way determined by technologies and organisational forms. Situations arise, furthermore, in which scarcities of labour supply or in nature put strong pressures to come up with new technologies and organisational forms. These days, for example, the US media are full of commentary on the need for a range of new technologies to free the country of its dependency on foreign oil and to combat global warming. The Obama administration promises programmes to that end and is already pushing the auto industry towards making electric or hybrid cars (unfortunately the Chinese and Japanese got there first).

Production systems and labour processes are likewise deeply

implicated in the way daily life is reproduced through consumption. Neither of these are independent of the dominant social relations, the relation to nature and the duly constituted technologies and organisational forms. But what we call 'nature', while clearly affected by capital accumulation (habitat and species destruction, global warming, new chemical compounds that pollute as well as soil structures and forests whose productivity has been enhanced by sophisticated management), is most certainly not determined by capital accumulation. Evolutionary processes on planet earth are independently occurring all the time. The emergence of a new pathogen – such as HIV/AIDS – has had, for example, an immense impact upon capitalist society (and calls forth technological, organisational and social responses that are embedded in capital circulation). The effects on the reproduction of daily life, on sexual relations and activities, and on reproductive practices have been profound, but have been mediated by medical technologies, institutional responses and social and cultural beliefs.

All of these 'activity spheres' are embedded in a set of institutional arrangements (such as private property rights and market contracts) and administrative structures (the state and other local and multinational arrangements). These institutions also evolve on their own account even as they find themselves forced to adapt to crisis conditions (as we now see happening) and to changing social relations. People act, furthermore, on their expectations, their beliefs and their understandings of the world. Social systems depend on trust in experts, adequate knowledge and information on the part of those making decisions, acceptance as to reasonable social arrangements (of hierarchies or of egalitarianism), as well as constructions of ethical and moral standards (*vis-à-vis*, for example, our relations to animals and our responsibilities to the world we call nature as well as to others not like us). Cultural norms and belief systems (that is, religious and political ideologies) are powerfully present but do not exist independently of social relations, production and consumption possibilities and dominant technologies. The contested inter-relations

between the evolving technical and social requirements for capital accumulation and the knowledge structures and the cultural norms and beliefs consistent with endless accumulation have all played a critical role in capitalism's evolution. For purposes of simplification, I will collect together all of these last elements under the rubric of 'mental conceptions of the world'.

This way of thinking yields us seven distinctive 'activity spheres' within the evolutionary trajectory of capitalism: technologies and organisational forms; social relations; institutional and administrative arrangements; production and labour processes; relations to nature; the reproduction of daily life and of the species; and 'mental conceptions of the world'. No one of the spheres dominates even as none of them are independent of the others. But nor is any one of them determined even collectively by all of the others. Each sphere evolves on its own account but always in dynamic interaction with the others. Technological and organisational changes arise for all manner of reasons (sometimes accidental), while the relation to nature is unstable and perpetually changing only in part because of human-induced modifications. Our mental conceptions of the world, to take another example, are usually unstable, contested, subject to scientific discoveries as well as whims, fashions and passionately held cultural and religious beliefs and desires. Changes in mental conceptions have all manner of intended and unintended consequences for acceptable technological and organisational forms, social relations, labour processes, relations to nature, as well as for institutional arrangements. The demographic dynamics that arise out of the sphere of reproduction and daily life are simultaneously autonomous but deeply affected by their relations to the other spheres.

The complex flows of influence that move between the spheres are perpetually reshaping all of them. Furthermore, these interactions are not necessarily harmonious. Indeed, we can reconceptualise crisis formation in terms of the tensions and antagonisms that arise between the different activity spheres as, for example, new technologies play against the desire for new configurations in social relations

or disrupt the organisation of existing labour processes. But instead of examining these spheres sequentially as we did earlier in the analysis of capital circulation, we now think of them as collectively co-present and co-evolving within the long history of capitalism.

In a given society at a particular point in space and time – Britain in 1850, or the Pearl River delta of China now, say – we can define its general character and condition largely in terms of how these seven spheres are organised and configured in relation to each other. Something can also be said about the likely future development of the social order in such places given the tensions and contradictions between the activity spheres, even as it is recognised that the likely evolutionary dynamic is not determinant but contingent.

Capital cannot circulate or accumulate without touching upon each and all of these activity spheres in some way. When capital encounters barriers or limits within a sphere or between spheres, then ways have to be found to circumvent or transcend the difficulty. If the difficulties are serious, then here too we find a source of crises. A study of the co-evolution of activity spheres therefore provides a framework within which to think through the overall evolution and crisis-prone character of capitalist society. So how can this rather abstract framework for analysis be put to work in concrete ways?

An anecdote may help here. Back in the autumn 2005, I was co-chair of a jury to select ideas for the design of a completely new city in South Korea. The city then called ‘The Multifunctional Administrative City’ (now Sejong) was originally planned to be a new capital city, but constitutional objections led to it being reduced to a satellite city, about halfway between Seoul and Busan, but with many of the administrative functions of government to be placed there. The jury’s task was to adjudicate on ideas rather than to select any final design. Those in charge of the project were tasked to undertake the final design, incorporating whatever we (and they) thought was useful

from the submissions to the competition. The jury was half Korean and half foreign and weighted heavily with engineers, planners and some prominent architects. It was clear that the South Korean government, tired of the formulaic urbanisation that had hitherto dominated in South Korea and much of Asia, was interested in doing something different, perhaps generating a new worldwide model for an innovative urbanisation.

As prelude to our decision making, we discussed the kind of criteria that would be most relevant in judging the many designs that had been submitted. The initial discussion focused around the differing views of the architects on the relative strengths of circles and cubes both as symbolic shapes and as physical forms that could accommodate different kinds of development strategies. Looking at the various map-like designs, it was easy to see differences of this sort clearly displayed. But I intervened to suggest that we broaden the discussion and think of a number of other criteria such as: the proposed relation to nature and the technological mixes to be deployed in the city; how the designs addressed the forms of production and employment to be generated and the associated social relations (how should we approach the problem that the city would be dominated by a scientific, technological and bureaucratic élite, for example); the qualities of daily life for differently positioned inhabitants; and the mental conceptions of the world, including political subjectivities, that might arise from the experience of living in this new kind of city (would people become more individualistic or incline towards forms of social solidarity?) I concluded by saying that I thought it would be wrong to imagine that physical designs could answer all of these issues but that we should do our best to think about building this new city in ways that were sensitive to these criteria.

There was considerable interest in my way of thinking. Debate over my ideas proceeded for a while until one of the architects, evidently impatient with the complexity of the discussion, intervened to suggest that, of all of these doubtlessly valid perspectives, there was one that stood out as paramount, and that was mental

conceptions. From this standpoint the most important question was one of symbolic meanings. In short order we were back to the discussion of the symbolic, conceptual and material potentialities of circles and squares in urban design!

It may sound utopian, but were I in charge of constructing a wholly new city, I would want to imagine one that could evolve into the future rather than a permanent structure that is fixed, frozen and completed. And I would want to imagine how the dynamics of relations between these different spheres might not only work but be consciously mobilised not so much to achieve some specific goal but to open up possibilities. To be sure, the city would have to be built in the first instance according to the dominant social relations, employment structures and the available technologies and organisational forms. But it could also be viewed as a site for the exploration of new technologies and organisational forms consistent with the development of more egalitarian social relations, respectful of gender issues, for example, and a more sensitive relation to nature than that demanded in pursuit of the increasingly unholy grail of endless capital accumulation at a 3 per cent compound rate.

This framework of thought does not originate with me, however. It derives from elaboration upon a footnote in chapter 15 of *Capital*, volume 1, in which Marx comments, interestingly after a brief engagement with Darwin's theory of evolution, that 'technology reveals the active relation of man to nature, the direct process of production of his life, and thereby it also lays bare the process of production of the social relations of his life and of the mental conceptions that flow from these relations'. Here Marx invokes five (perhaps six if 'the direct process of production of his life' refers both to the production of commodities and their consumption in daily life) of the different spheres of activity that I have identified. Only the institutional arrangements are missing.

The positioning of this footnote in the preamble to a lengthy examination of how the dominant technological and organisational forms of capitalism came into being is significant. Marx is concerned

to understand the origins of the factory system and the rise of a machine tool industry (producing machines by way of machines) as an autonomous business dedicated to the production of new technologies. This is the key industry that underpins 'the constant revolutionising of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation' identified in *The Communist Manifesto* as the hallmark of what capitalism has been and still is about.

In this long chapter on machinery, the different spheres co-evolve in ways that accommodate and consolidate the permanently revolutionary character of capitalism. Mental conceptions of production as an art were displaced by scientific understandings and the conscious design of new technologies. Class, gender and family relations shifted as workers were increasingly reduced to the status of flexible appendages to the machine rather than as individuals endowed with the unique skills of the artisan. At the same time, capitalists mobilised new technologies and organisational forms as weapons in class struggle against labour (eventually using the machine to discipline the labouring body). The entry of a large number of women into the labour force, then as now, had all sorts of social ramifications. Public education became necessary as flexibility and adaptability of labour to different tasks became a crucial requirement. This brought forth other institutional changes, notably the educational clauses in the Factory Act of 1848 passed by a state dominated by capitalists and landlords. The factory inspectors appointed by that state provided Marx with abundant ammunition with which to bolster his arguments. New organisational forms (the corporate factory) promoted new technologies under new institutional arrangements that had ramifications for social relations and the relation to nature. At no point does it seem as if any one of the spheres dominated the others.

Yet there are uneven developments between the spheres that create stresses within the evolutionary trajectory. At some crucial turning points these stresses redirect the trajectory in this direction

rather than that. Could a new and 'higher' form of the family arise out of this dynamic? Would the public education eventually required to produce a literate, flexible and well-trained workforce lead to popular enlightenment that would allow working-class movements to take command? Could technologies be devised that would lighten the load of labour rather than tie it more ruthlessly to the juggernaut of endless capital accumulation? Different possibilities were inherent in the situation even as the choices actually made pushed capitalism down ever more repressive paths. The British penchant for policies of free market 'laissez faire' did not have to triumph in the nineteenth century. But once they did, the evolution of capitalism took a very specific and not particularly benevolent turn.

So let me summarise. The seven activity spheres co-evolve within the historical evolution of capitalism in distinctive ways. No one sphere prevails over the others, even as there exists within each the possibility for autonomous development (nature independently mutates and evolves, as do mental conceptions, social relations, forms of daily life, institutional arrangements, technologies, etc.). Each of the spheres is subject to perpetual renewal and transformation, both in interaction with the others as well as through an internal dynamic that perpetually creates novelty in human affairs. The relations between the spheres are not causal but dialectically interwoven through the circulation and accumulation of capital. As such, the whole configuration constitutes a socio-ecological totality. This is not, I must emphasise, a mechanical totality, a social engine in which the parts strictly conform to the dictates of the whole. It is more like an ecological system made up of many different species and forms of activity – what the French philosopher/sociologist Henri Lefebvre refers to as an '*ensemble*' or his compatriot the philosopher Gilles Deleuze calls an '*assemblage*' of elements in dynamic relation with each other. In such an ecological totality, the inter-relations are fluid and open, even as they are inextricably interwoven with each other.

Uneven development between and among the spheres produces contingency as well as tensions and contradictions (in much the

same way that unpredictable mutations produce contingency in Darwinian theory). Furthermore, it is entirely possible that explosive developments in one sphere, in a given time and place, can take on a vanguard role. The sudden development of new pathogens (e.g. HIV/AIDS, avian flu or SARS), or the rise of some strong social movement around labour rights, civil or women's rights, or a burst of technological innovation as in the recent rise of electronics and computer-chip-based technologies, or a heady burst of utopian politics, have all in various times and places come out in front of the co-evolutionary process, putting immense pressure on the other spheres, either to play catch-up or to form centres of recalcitrance or active resistance. Once technology became a business in its own right (as it increasingly did from the mid-nineteenth century onwards) then a social need sometimes had to be created to use up the new technology rather than the other way around. In the pharmaceutical sector we see in recent times the creation of whole new diagnostics of mental and physical states to match new drugs (Prozac is the classic example). The existence of a dominant belief within the capitalist class and the social order more generally that there is a technological fix for every problem and a pill for every ailment produces all sorts of consequences. The 'fetish of technology' therefore does have an unduly prominent role in driving bourgeois history, defining both its astonishing achievements and its self-inflicted catastrophes. Problems in relation to nature have to be solved by new technologies rather than by revolutions in social reproduction and daily life!

Historically it seems as if there are periods when some of the spheres become radically at odds with each other. In the United States, for example, where the pursuit of science and technology appears to hold supreme, it would seem strange that so many people do not believe in the theory of evolution. While the science of global climate change is well established, many are convinced it is a hoax. How can the relation to nature be better understood in the face of overwhelming religious or political beliefs that give no credence to science? Situations of this kind typically lead either to phases of stasis

or to radical reconstruction. Crises usually betoken the occurrence of such phases. Here, too, the crisis tendencies of capitalism are not resolved but merely moved around.

But there is a bottom line to all this. No matter what innovation or shift occurs, the survival of capitalism in the long run depends on the capacity to achieve 3 per cent compound growth. Capitalist history is littered with technologies which were tried and did not work, utopian schemes for the promotion of new social relations (like the Icarian communes in the nineteenth-century US, the Israeli kibbutz in the 1950s, or today's 'green communes'), only to be either co-opted or abandoned in the face of a dominant capitalist logic. But no matter what happens, by hook or by crook, capital must somehow organise the seven spheres to conform to the 3 per cent rule.



In practice capitalism seems to have evolved in ways somewhat similar to Stephen Jay Gould's 'punctuated equilibrium' theory of natural evolution: periods of relatively slow but reasonably harmonic co-evolution between the spheres are punctuated by phases of disruption and radical reform. We are possibly now in the midst of such a disruptive phase. But there are also signs of a desperate attempt to restore the pre-existing order, and to proceed as if nothing of consequence has really changed, nor should it.

Consider how this idea of punctuated equilibrium looks when we cast our eye backwards over the last major phase of capitalist reconstruction that occurred during the crisis of 1973–82. In my 2005 book *A Brief History of Neoliberalism*, I attempted an account of capitalist restructuring that began during these years. Throughout the capitalist world, but particularly in the United States (the undisputed dominant power of that time), capitalist class power was weakening relative to labour and other social movements and capital accumulation was lagging. The heads of leading corporations, along with media barons and wealthy individuals, many of whom,

like the Rockefeller brothers, were scions of the capitalist class, went on the counter-attack. They set in motion the radical reconstruction of the state–finance nexus (the national and then international deregulation of financial operations, the liberation of debt-financing, the opening of the world to heightened international competition and the repositioning of the state apparatus with respect to social provision). Capital was re-empowered vis-à-vis labour through the production of unemployment and deindustrialisation, immigration, offshoring and all manner of technological and organisational changes (e.g. subcontracting). When later coupled with an ideological and political attack on all forms of labour organisation in the Reagan/Thatcher years, the effect was to solve the crisis of declining profitability and declining wealth by way of wage repression and the reduction in social provision by the state. Mental conceptions of the world were reshaped as far as possible by appeal to neoliberal principles of individual liberty as necessarily embedded in free markets and free trade. This required the withdrawal of the state from social provision and the gradual dismantling of the regulatory environment that had been constructed in the early 1970s (such as environmental protection). New forms of niche consumerism and individualised lifestyles also suddenly appeared, built around a postmodern style of urbanisation (the Disneyfication of city centres coupled with gentrification), and the emergence of social movements centred around a mix of self-centred individualism, identity politics, multiculturalism and sexual preference.

Capital did not create these movements but it did figure out ways to exploit and manipulate them, both in terms of fracturing hitherto important class solidarities and by commodifying and channelling the affective and effective demands associated with these movements into niche markets. New electronic technologies with widespread applications in both production and consumption had a huge impact upon labour processes, as well as on the conduct of daily life for the mass of the population (laptops, cell phones and iPods are everywhere). That the new electronic technologies held the answer to the

world's problems became the fetish mantra of the 1990s. And all of this presaged an equally huge shift in mental conceptions of the world such that an even more intensive possessive individualism arose, along with money-making, indebtedness, speculation in asset values, privatisation of government assets and the widespread acceptance of personal responsibility as a cultural norm across social classes. Preliminary studies of those caught up in the foreclosure wave now indicate, for example, that many of them blame themselves rather than systemic conditions for not being able, for whatever reason, to live up to the personal responsibility entailed in home ownership. The view of the appropriate role of the state and of state power shifted dramatically during the neoliberal years, only now to be challenged as the state was forced to step in, after the bankruptcy of Lehman Brothers in September 2008, with massive financial aid to rescue a banking system on the brink of failure.

Of course, the details were much more complicated than this, and the myriad forces at work flowed in all manner of cross-cutting directions. On the world stage, uneven geographical developments of neoliberalism were everywhere in evidence, along with differentials of resistance. All I wish to illustrate here is how much the world changed, depending upon where one was, across all of these spheres between 1980 and 2010. The co-evolutionary movement has been palpable to anyone who has lived through it.

The danger for social theory as well as for popular understandings is to see one of the spheres as determinant. When the architect on the South Korean urban jury said only mental conceptions matter, he was making a very common move doubtless impelled by an understandable desire for simplification. But such simplifications are both unwarranted and dangerously misleading. We are, in fact, surrounded with dangerously oversimplistic monocausal explanations. In his bestselling 2005 book *The World is Flat*, the journalist Thomas L. Friedman shamelessly espouses a version of technological determinism (which he mistakenly attributes to Marx). Jared Diamond's *Guns, Germs and Steel* (1997) argues that the relation to

nature is what counts, thus transforming human evolution into a tale of environmental determinism. Africa is poor for environmental reasons, not, he says, because of racial inferiorities or (what he does not say) because of centuries of imperialist plundering, beginning with the slave trade. In the Marxist and anarchist traditions there is a good deal of class struggle determinism. Others place social relations of gender, sexuality or racialisation in the vanguard of social evolution. Still others preach that our current problems arise out of arrant individualism and universal human greed. Idealism, in which mental conceptions are placed in the vanguard of social change, has an immensely long tradition (most spectacularly represented by Hegel's theory of history). There are, however, many other versions in which the visions and ideas of powerful innovators and entrepreneurs or of religious leaders or utopian political thinkers (such as some versions of Maoism) are placed at the centre of everything. Changing beliefs and values are, it is said, what really matter. Change the discourses, it is sometimes said, and the world will change, too.

The workerist wing of the Marxist tradition, on the other hand, treats the labour process as the only position from which truly revolutionary change can come because the real power of labour to change the world lies exclusively in the activity of labouring. From this starting point, and only from this starting point, is it possible, claimed John Holloway in 2002, to *Change the World without Taking Power*. In yet another popular text, *Blessed Unrest* (2007), Paul Hawken makes it seem as if social change in our times can only emanate, and already is emanating, from the practical engagements of millions of people seeking to transform their daily lives in the particular places in which they live, casting aside all of those political ideologies and utopian mental conceptions (from communism to neoliberalism) that have proven so disastrous in the past. The left version of this now sees the politics of everyday life in particular locales as the fundamental seedbed for both political action and radical change. The creation of local 'solidarity economies' is the exclusive answer. On the other hand, there is a whole school of historians and political philosophers

who, by choosing the title of ‘institutionalists,’ signal their adherence to a theory of social change that privileges command over and reform of institutional and administrative arrangements as fundamental. Capture and smash state power is the revolutionary Leninist version of this. Another radical version derives from Michel Foucault’s focus on questions of ‘governmentality,’ which interestingly analyses the intersections between two spheres – institutional and administrative systems and daily life (construed as body politics).

Each position in this pantheon of possibilities has something important, albeit unidimensional, to say about the socio-ecological dynamism of capitalism and the potentiality to construct alternatives. Problems arise, however, when one or other of these perspectives is exclusively and dogmatically viewed as the only source, and hence the primary political pressure point for change. There has been an unfortunate history within social theory of favouring some spheres of activity over others. Sometimes this reflects a situation in which one or other of the spheres – such as class struggle or technological dynamism – seems to be in the forefront of the transformations then occurring. In such a situation it would be churlish not to acknowledge the forces that are in the vanguard of socio-ecological change in that place and time. The argument is not, therefore, that the seven spheres should always be given equal weight but that the dialectical tension within their uneven development should always be born in mind.

What appears minor in one era or in one place can become major in the next. Labour struggles are not now in the forefront of the political dynamic in the way they were in the 1960s and early 1970s. Much more attention is now focused on the relation to nature than formerly. Contemporary interest in how the politics of the everyday unfold is clearly to be welcomed simply because it has not received the attention it should have commanded in the past. Right now we probably do not need yet another exposition on the social impacts of new technologies and organisational forms, which have in the past too often been thoughtlessly prioritised.

Marx's whole account of the rise of capitalism out of feudalism can in fact be reconstructed and read in terms of a co-evolutionary movement across and between the seven different activity spheres here identified. Capitalism did not supplant feudalism by way of some neat revolutionary transformation resting on the forces mobilised within only one of these spheres. It had to grow within the interstices of the old society and supplant it bit by bit, sometimes through main force, violence, predation and seizures of assets, but at other times with guile and cunning. And it often lost battles against the old order even as it eventually won the war. As it achieved a modicum of power, however, a nascent capitalist class had to build its alternative social forms at first on the basis of the technologies, social relations, administrative systems, mental conceptions, production systems, relations to nature and patterns of daily life as these had long been constituted under the preceding feudal order. It took a co-evolution and uneven development in the different spheres before capitalism found not only its own unique technological base but also its belief systems and mental conceptions, its unstable but clearly class-ridden configurations of social relations, its curious spatio-temporal rhythms and its equally special forms of daily life, to say nothing of its production processes and its institutional and administrative framework, before it was possible to say that this was truly capitalism.

Even as it did so, it carried within it multiple marks of the differential conditions under which the transformation to capitalism had been wrought. While too much has probably been made of the differentials between Protestant, Catholic and Confucian traditions in marking out significant differences in how capitalism works in different parts of the world, it would be foolhardy to suggest that such influences are irrelevant or even negligible. Furthermore, once capitalism found its own feet, so it engaged in a perpetual revolutionary movement across all the spheres to accommodate the inevitable stresses of endless capital accumulation at a compound rate of growth. The daily habits and mental conceptions of the working classes that have emerged (along with a redefinition of what constitutes a

‘working class’ social relation in the first place) in the 1990s bear little relationship to working-class habits and moves of Britain in the 1950s and 1960s. The process of co-evolution that capitalism sets in motion has been perpetual.

Perhaps one of the biggest failures of past attempts to build socialism has been the reluctance to engage politically across all of these spheres and to let the dialectic between them open up possibilities, rather than close them down. Revolutionary communism, particularly that of the Soviet sort – especially after the period of revolutionary experimentation of the 1920s was terminated by Stalin – too often reduced the dialectic of relations between the spheres to a single-track programme in which productive forces (technologies) were placed in the vanguard of change. This approach inevitably failed. It led to stasis, stagnant administrative and institutional arrangements, turned daily life into monotony, and froze the possibility to explore new social relations or mental conceptions. It paid no mind to the relation to nature, with disastrous consequences. Lenin, of course, had no option but to strive to create communism on the basis of the configuration given by the preceding order (part feudal and part capitalist), and from this standpoint his embrace of the Fordist factory, its technologies and organisational forms as a necessary step in the transition to communism is understandable. He plausibly argued that if the transition to socialism and then communism was to work it had to be initially on the basis of the most advanced technologies and organisational forms that capitalism had produced. But there was no conscious attempt, particularly after Stalin took over, to move towards the construction of truly socialist, let alone communist technologies and organisational forms (though they did make major advances in robotisation and in the mathematical planning of optimal production and scheduling systems that could have lightened the burden of labouring and enhanced efficiency if they had been properly applied).

Mao’s overwhelming dialectical sense of how contradictions worked, as well as his recognition, in principle at least, that a

revolution had to be permanent or nothing at all, led him consciously to prioritise revolutionary transformation in different activity spheres in different historical phases. The 'Great Leap Forward' emphasised production and technological and organisational change. It failed in its immediate objectives and produced a massive famine, but almost certainly had a huge impact upon mental conceptions. The Cultural Revolution sought to radically reconfigure social relations and mental conceptions of the world directly. While it is contemporary received wisdom that Mao failed miserably in both of these endeavours, the suspicion lurks that in many respects the astonishing economic performance and revolutionary transformation that has characterised China since its shift towards institutional and administrative reforms from the late 1970s onwards has rested solidly on the real achievements of the Maoist period (in particular the break with many 'traditional' mental conceptions and social relations within the masses as the Party deepened its grasp over daily life). Mao completely reorganised the delivery of health care in the 1960s, for example, by sending an army of 'barefoot doctors' out into the hitherto neglected and impoverished rural regions to teach elementary preventive medicine, public health measures and pre-natal care. The dramatic reductions in infant mortality and increases in life expectancy that resulted just happened to produce the labour surpluses that fuelled China's growth surge after 1980. It also led to draconian limitations on reproductive activity through enforcement of a one child per family policy. That all of this opened the path towards a certain kind of capitalist development is an unintended consequence of huge significance.

How, then, might revolutionary strategies be construed in the light of this co-evolutionary theory of social change? It provides a framework for enquiry that can have practical implications for thinking through everything from grand revolutionary strategies to redesign of urbanisation and city life. At the same time it signals that we perpetually confront contingencies, contradictions and autonomous possibilities, as well as a host of unintended consequences. As

with the transition from feudalism to capitalism, there are plenty of interstitial spaces to start alternative social movements that are anti-capitalist. But there are also plenty of possibilities for well-intended moves to be co-opted or go catastrophically wrong. Conversely, seemingly negative developments (such as Mao's Great Leap Forward or the Second World War that set the stage for rapid economic growth after 1945) may turn out surprisingly well. Should that deter us? Since evolution in general and in human societies in particular (with or without the capitalist imperative) cannot be stopped, then we have no option but to be participants in the drama. Our only choice is whether or not to be conscious of how our interventions are working and to be ready to change course rapidly as conditions unfold or as unintended consequences become more apparent. The evident adaptability and flexibility of capitalism here provides an important role model.

So where shall we start our revolutionary anti-capitalist movement? Mental conceptions? The relation to nature? Daily life and reproductive practices? Social relations? Technologies and organisational forms? Labour processes? The capture of institutions and their revolutionary transformation?

A survey of alternative thinking and of oppositional social movements would show different currents of thought (more often than not unfortunately posed as mutually exclusive) as to where it is most appropriate to begin. But the implication of the co-evolutionary theory here proposed is that we can start anywhere and everywhere as long as we do not stay where we start from! The revolution has to be a *movement* in every sense of that word. If it cannot move within, across and through the different spheres then it will ultimately go nowhere at all. Recognising this, it becomes imperative to envision alliances between a whole range of social forces configured around the different spheres. Those with a deep knowledge of how the relation to nature works need to ally with those deeply familiar with how institutional and administrative arrangements function, how science and technology can be mobilised, how daily life and social

relations can most easily be re-organised, how mental conceptions can be changed, and how production and the labour process can be reconfigured.

But in what space does a revolutionary movement occur and how does it make space as it goes? That is the geographical question we now have to consider.