



MISTRA URBAN FUTURES

DISCUSSION PAPER:

**Low Carbon Transitions:
Relevant Lessons from the 1970s Crisis?**

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1. Introduction

This purpose of this paper is to provide orientation for participants in the workshop, Low Carbon Transitions: Relevant Lessons from the 1970s Crisis? To do this, the paper does five things:

1. It outlines why the workshop takes an historical approach to understanding low carbon transitions in relation to contemporary and earlier crises.
2. It introduces the key questions and themes that the workshop seeks to address.
3. The paper then elaborates on the focus of the workshop on 'experiments' and 'alternatives' in relation to the 1970s and the contemporary period.
4. It does so to provide a conceptual frame for understanding experiments and alternatives in relation to (a) economic development in the 1970s and now; (b) green urbanism; (c) architecture and housing; and (d) energy technologies and infrastructures.
5. The paper then provides an overview for participants to structure a short contribution in advance of the workshop and sets out how the workshop sessions will be organised.

2. Why Take an Historical-Comparative Approach to Low Carbon Transition and Crises in the UK?

Our seminar brings historical perspective to bear on the challenges of sustainability transitions today by recalling responses to energy and ecological crisis in the 1970s. What purposes might such a perspective serve? What benefits does it bring to participants in the seminar, especially those involved in the contemporary day-to-day struggles of sustainability transitions? After all, the UK is a very different place to that in the 1970s. Comparing social, economic, political, geographic and technological features then and now reveals stark differences. On the other hand, perhaps important continuities become apparent too? We believe appreciating the differences and similarities improves our understanding of current activity in sustainability transitions and contributes to debate about future possibilities.

Historian John Tosh explains that ‘thinking with history’ means recognising ‘the profound differences which distinguish past from the present, and the processes over time which explain how the present has grown out of the past’.¹ He argues such reflection serves several important purposes.²

- Understanding the processes that have brought us to the present situation deepens our appreciation of current trajectories of development;
- Recognising how different things were in the past opens up the range of possibilities for debate by suggesting how things are likely to be different in the future too;
- Carefully contextualising analogies drawn between past, present and future improves the quality of public debate by testing their validity.

Historical perspectives can reveal some of the long-term trajectories that structure so much of the world around us. This can provide grounds for hope when it reveals the growing spaces for debate, experimentation and innovation in sustainability. Comparing the range of ecologically-minded activities in the past with sustainability initiatives today suggests progress of sorts. But at the same time, a historical perspective can also point to deeper seated obstacles.

Paul Warde has indicated, for example, the unprecedented pace of switching to renewable energy currently proposed by policy-makers compared to changes to energy systems in the past. He also points out how improvements in energy efficiency historically have created the conditions for economic growth rather than reductions in consumption.³ This suggests policy implementation will need to make very concerted efforts in order to deliver on the ambitions; as well as indicating in which areas they might find most chances of success on the basis of past experience. Historical perspectives like this help cause us to pause and consider just how realistic are our problem framings and prescriptions, and the resources and commitments required to see them through.

History also reminds us that people thought and lived quite differently in the past; suggesting that people will behave quite differently in the future. So when discussing long-term changes, we should recognise that the way we set our course now will itself be subject to change in the future. It seemed

¹ John Tosh (2008) why history matters, Palgrave Macmillan, Basingstoke, p.22.

² See also www.historyandpolicy.org

³ Paul Warde (2010) Low carbon futures and high carbon pasts: policy challenges in historical perspective. Available at: <http://www.historyandpolicy.org/papers/policy-paper-109.html> (accessed 06/09/12)

obvious to policy elites in the past, for example, that energy provision in the UK was a matter for municipal entrepreneurship. Later elites thought central planning and control was the best form of provision. Recent decades have seen elites believing that such matters were best left to markets. Whilst one cannot reverse time's arrow, this perspective does at least suggest that current debate about the future provision of sustainable energy should not be limited to market-based answers, and that we should include new or revised concepts for provision in our considerations.

As such, looking to the crisis of the 1970s gives us another vantage point from which to consider our current situation. It allows us to evaluate the present differently, aware that things might have turned out differently, and will probably do so in the future. On the other hand, a historical perspective can reveal more enduring similarities and continuities, which suggests features that will be harder to change and trajectories more likely persist, even if the precise timescales are unknowable. In either case, the long-view can improve the strategic choices available.

Possibilities are always constrained by contexts prevailing at the time. It is important that historical knowledge is contextualised – especially if analogies are being drawn. When considering ecological activism in the 1970s, for example, or the responses of municipal planners back then, it is important to do so in the light of the ideas, theories and techniques that they worked with then. The insights this generates can provide a distance from and hence awareness of the contextual frameworks that condition our own activities now. Contexts for action were different in the past. By implication, current contexts are also open to change. Understanding the processes by which contexts change over time becomes helpful. We can understand how new possibilities opened up through wider changes, as well as understanding how past activities influenced their contexts.

So what we do today in order to shape tomorrow can itself be influenced by how we think about the past. We cannot fully understand our sustainable energy predicaments without understanding where we and they come from. However, historians widely concede that the past is open to interpretation, because even the most incontrovertible of facts are open to judgements as to their consequences.⁴ Different histories, and not History, shape our thinking about the present and our views on the future. So whilst discussing the 1970s crisis will not generate precise prescriptions for sustainability transitions, the differences and similarities in understandings, debates and responses nevertheless reminds us that these matters are never fully settled. What we can say for sure is that sustainability transitions will continue to be subject to debate.

As such, the past is a resource that we can draw upon in thinking about our current predicaments. Jeffrey Haydu suggests we do this by considering different periods as offering 'mutable solutions to recurring problems'.⁵ Continuities and changes, differences and similarities, can be brought together and discussed through such a framing. In the case of our workshop, the recurring problem is how groups addressed the recurring problem of economic and ecological crisis, and the development of alternative,

⁴ Richard J. Evans (1997) *In defence of history*, Granta, London.

⁵ Jeffrey Haydu (2010) *Reversals of fortune: path dependency, problem solving and temporal cases*, *Theory and Society* 39, 1: 25-48; Jeffrey Haydu (1998) *Making use of the past: time periods as cases to compare and as sequences of problem solving*, *American Journal of Sociology* 104, 2: 339-371.

more sustainable futures. We are interested in comparing the experimental solutions under the different contexts of the 1970s and now. Considering how people addressed recurring social problems over time becomes an important methodology for critical debates about our future.

It is our view that these debates are rarely purely open and deliberative exercises, but that it is wise to try and make them as democratic as possible. Antagonisms will drive the open-ended contestation between different sustainability pathways. For those concerned for social justice within those contests, then a critical historical perspective can challenge assumptions propagated by the powerful about the naturalness or immutability of a situation. The relationships between urban forms and energy infrastructures, for example, have changed considerably over the years, as has ownership and control of those infrastructures. Realising this might help actors involved in city politics today to be open to a wider set of issue framings when responding to the current challenges of climate change, energy security, and fuel poverty. Received wisdoms can be opened for interrogation.

Recognising a plurality of possibilities is important for the quality of democracy in transition visions that affect all our lives. Historical perspective is one way of broadening the terms and quality of debate: its merit rests in opening rather than in closing questions, in facilitating and sharpening debate. This is the context in which we have organised a workshop that seeks to create dialogue to address the broad themes and questions set out below.

3. The Workshop's Key Questions

Everyone, it seems, is interested in low carbon transitions. But haven't we been here before? The 1970s was a period of economic, ecological and state crisis that spawned conflict, contestation and debate about the future direction of society, of which alternative technologies and re-directed strategies were a critical part. Yet such solutions remained largely at the demonstration or experimental stage and were seen as exemplars of new technologies, lifestyles and diverse forms of social control over what might have been an alternative socio-technical transition in housing, infrastructure, design and cities. By the 1980s it was clear that this space of experimentation was closed down and the emerging logic was the dominance of neo-liberalism.

In 2012 we are once again in a period of significant structural change. But what are the similarities and differences between these periods when thinking about low carbon transition? How might similarities suggest deeper, fundamental mobilisations in transitions and how can differences make us more sensitive to the context specificities of transitions? This workshop's purpose is to create a context for thinking reflexively and constructively about the wider lessons and insights of the crises in the 1970s for the challenge of creating a low carbon transition today. The workshop is aimed at practitioners and researchers working on contemporary transitions, with a view to making productive use of some historical perspective. To do this the questions that the workshop is organised around are as follows:

- i. What are the similarities and differences between the economic, ecological and political crises we are facing now and those we faced in the 1970s?

- ii. How were/are 'experimental' responses in both periods - new technologies, governance arrangements, patterns of consumption, modes of financing, forms of planning etc - mobilised as responses to crises and what problems were they seeking to address?
- iii. Were/are these experimental responses seeking to produce 'alternatives' to dominant modes of economic activity, in forms of urbanism and housing and also in the organisation of energy infrastructures and technologies?
- iv. If so, in what ways did/do these new ideas, responses and alternatives challenge, transform or even reinforce the pre-existing regime and modes of organisation?
- v. What are the critical insights, limits and opportunities, societal lessons of a comparison of the relations between alternatives and the dominant mode of organisation for current concerns about a systemic low carbon transition?

4. 'Alternatives' in the 1970s and Now: The broad contextual backdrop

In this section we summarise the political and ideological struggle that forms the contextual backdrop to the emergence of experiments and alternatives in the 1970s. We do this to contribute to a fuller appreciation of the context within which alternatives and experiments may be better understood.

The 1970s is often represented as a time of economic, ecological and political crises in the UK and the wider western world. The breakdown of the post-War Keynesian-Fordist mode of economic organisation based on a social democratic politics, state ownership and control of strategically important industries and a fundamental role for the national state became apparent in the late 1960s and through the 1970s.

The predominant factor underpinning the crisis of Keynesian-Fordism was world recession and the relative undermining of the US as hegemonic power in the world economy. This was important given the US's pivotal role in the functioning of the international (Bretton Woods) institutions, the position of the US dollar as the currency standard against which other currencies would be pegged, and also the relatively low level of cross-border capital flows.

The technical limits of Fordism were being reached in the late 1960s with 'inflexible' processes of mass production coming up against changing and diversifying consumption patterns. This led Fordist manufacturers, particularly multinational corporations (MNCs) utilising new technologies, to search out new non-domestic markets but also to circumvent domestic regulations by depositing surpluses into European banks. This growth of private international finance was facilitated by the OPEC oil crises of the 1970s and in particular the 1973 decision to quadruple the price of oil. Consequently, there was a huge transfer of foreign currency from western economies, and in particular the US, to oil-producing states. This was then recycled, via international banks, into the world economy.

World recession in the early 1970s coincided with growing worker dissatisfaction and unrest. The increasing militancy of trade unions met with rising inflation but decreasing productivity and growth – 'stagflation'. Such a scenario saw the end of full employment and increasing demands placed on the welfare state.

Wider challenges to the Fordist settlement attacked its patriarchy, the anti-environmentalism and alienating consequences of mass consumption and mass production. Additionally, there were a range of

other counter-cultural movements emanating from the events of '1968'. Key amongst such new social movements was the impact of feminism which in many ways informed a re-drawing of areas of political contestation. The personal became political and distinctions between public and private and home and work were questioned.

The crisis of Keynesian-Fordism was also a crisis of the social democratic state. This provided an opening for the development, articulation and dissemination of alternatives to the status quo, which challenged the central role of the state and for some tried to rethink the role of the state in social democratic thinking.

As Andrew Gamble has pointed out, 'The breakdown of international hegemony and the emergence of a crisis of accumulation in the world economy forces all national governments to reconsider the role of their countries within the world system. They must rethink what their essential national interests are and adapt their policies accordingly...Such rethinking can provoke lively internal debate and major social and political conflicts⁶.

The point being that a successor regime to Keynesian-Fordism would not automatically appear but the crisis of the social democratic state would provide space where the articulation of alternatives and competing ideas of the role of the nation-state, the international economy, cities and communities and the institutions that supported them would be fought out.

In this context a range of alternative visions and strategies were developed in the 1970s. These alternative visions ranged across: political and economic strategies, to the ways in which cities could be organised in more self-sufficient ways, they encompassed architecture and new forms of housing and also alternatives to the ways in which a centralised, national organisation of energy could be re-thought at community and city scales.

In the UK this 'internal debate' involved the broad and competing currents of alternatives that included an anarchist-tinged, Kropotkin-type back-to-the-land movement; municipal socialism; Eurocommunism; and a Hayekian influenced withdrawal of the state and freeing up of markets, coupled with a conservative backlash to the liberalisation of social norms in the 1960s. The free-market alternative gradually won out over the course of the 1970s and this 'success' should be seen - not just ideologically but economically and politically - as the hegemony of Thatcherism. Almost mantra-like was the call for the 'rolling back' of the state, the end of the welfare 'dependency culture', a curtailment of trade union power, the de-industrialisation of monolithic nationalised industries, privatisation, deregulation, and an end to collectivism generally. Rhetorically, at least, responsibility was to be devolved to individuals, established vested interest groups were to be by-passed and the market economy as arbiter and aggregator of individual choices and competition was viewed as a superior mechanism to the state.

⁶ Gamble, A., (1994), *The Free Economy and the Strong State: The Politics of Thatcherism*, Macmillan: London, 2nd edition: 18.

Similarly a successor regime to contemporary dominant market-based, individualised modes of economic organisation, the promotion of competition between places and individuals and private ownership and control of strategic assets and concentrations of wealth will not – even in a time of multiple crises – be transformed or ‘replaced’ without the promotion, development and acceptance of a range of alternatives.

In similar ways to which the Keynesian-Fordist-Welfarist settlement was challenged through the 1970s, through a multiplicity of experiments, the emergence of a confluence of multiple crises in the second half of the 2000s has challenged the neoliberal ascendancy. Whether the neoliberal discourse can be re-energised is a central issue.

Free market regimes of accumulation and the modes of regulation that support them are increasingly being questioned. Whilst the neoliberal free market logic has been challenged through voices proclaiming that free market capitalism is a fundamental part of the problem there are significant efforts to rebuild its legitimacy. This is likely to be the product of political struggle and experimentation. This provides a wider reference point that conditions current forms of experimentation with the state and political institutions, the organisation of cities, energy systems, and the built environment. The point being that ‘when a crisis is of this magnitude, its political aspect is fundamental to understanding its outcomes and its consequences’⁷.

The next section then focuses on the experiments that this ferment prompted and enabled. Note too that there is not necessarily a one-to-one link between the broad political economic alternatives and the experiments – in order to get off the ground, many alternative experiments had to appeal to a variety of constituencies.

5. Understanding ‘Alternatives’ and ‘Experiments’ in the 1970s and Now.

When we think of ‘experiments’ what we are referring to are a wide range of developments, initiatives and projects that embody an alternative view of the future to that offered by the status quo. A variety of municipalities, civic associations, grassroots groups, and workers movements responded to crises in the 1970s with visions, strategies and initiatives for realising alternative urban spaces and practices. Examples include the Alternative Economic Strategy of the Greater London Council, and the Urban Centre for Alternative Technology in Bristol. Both spawned a diversity of experimentation with more socially inclusive and ecologically sound urban development. Attracting greater state and corporate interest today, initiatives like the Green Deal, Transition Town network, community energy and food co-operatives, propose similarly diverse solutions to our contemporary crises.

To illustrate this further we have provided examples in the table below that demonstrate a range of ‘low carbon experiments’ in the 1970s (though they did not use this term) and now in relation to the four

⁷ Gamble, A., (2009), *The Spectre at the Feast: Capitalist Crisis and the Politics of Recession*, Palgrave-Macmillan: London: 8.

themes of the workshop. Under each theme is a short summary of an experiment in the 1970s and in the current period.

Examples of Alternatives and Experiments in the 1970s and Now

	1970s Alternatives and Experiments	2007+ Alternatives and Experiments
Economic Development	The Alternative Economic Strategy	Green New Deal
Green Urbanism	'Ecological' cities	Eco Cities
Architecture and Housing	Low Energy Housing	Low Impact Housing
Energy Technologies and Infrastructures	Alternative Technology Movement	Transitions Movement

Economic Development

In the 1970s one response of the Labour party and parts of the broader political left in Britain to economic crisis was the Alternative Economic Strategy (AES). The AES was not only a response to economic crisis but also the increasing internationalisation and globalisation of economic activity. The AES promoted a commitment to a wide programme of nationalisation, workplace and industrial democratisation and large-scale national investment.

The Green New Deal is an experiment promoted since 2008 by the New Economics Foundation (NEF). As a response to economic and ecological crises NEF likens the challenges posed by the current configuration of multiple crises to that presented by the Great Depression. It promotes a Green New Deal as a response that requires major structural changes to national and international financial systems, including taxation and sustained investment in energy conservation and renewable energy generation⁸.

There are many other examples of experiments in both the 1970s and now – from concerns with socially useful production, and low carbon economy, to low carbon industrial strategy etc. Fred Steward and Tim Jenkins will discuss economic development experiments in the 1970s and now in this session.

Green Urbanism

Through most of the 1970s, urban environmentalism was a multifaceted 'social movement' that combined a variety of disparate activities and political interests. In many European cities, groups of activists with an interest in architecture and construction carried out experiments in what started to be called 'urban ecology'. There were also a number of sites for collective living in which recycling of waste products and workshops for alternative, environmentally friendly technology were established. In London, a group of such activists put out the journal *Undercurrents* for many years, and in the mid-1970s produced the anthology *Radical Technology* in which many of these alternative ideas and practices were presented. In relation to transportation, building construction, energy production and use, agriculture, and even communication, loosely organized activist networks tried to put into practice the vision of an ecological city as an intrinsic part of the larger movement protesting environmental degradation and opposing nuclear energy. But much of this experimentation came under severe

⁸ <http://www.neweconomics.org/projects/green-new-deal> [08/11/2011]

pressure at the end of the 1970s with an ideological backlash from conservative governments and an economic downturn that made ecological experimentation difficult for many cities.

The promotion of eco cities, towns, and blocks in the first decade of the 2000s has been marked. These are experiments that are primarily concerned with attempts to construct integrated responses to infrastructure that cut across multiple infrastructure networks - energy, food, water, waste etc - and that are rebundled together at particular scales in the design of new buildings, neighbourhoods, towns, blocks and cities. These usually focus on new-build developments in entirely new 'greenfield' developments. This style of development is much more concerned with integration at the scale of the development than with the wider transformation of the existing city or its incumbent infrastructure networks. These responses have at their core the vision and aspiration that they are able to transcend conventional notions of ecological constraint – climate change and resource constraint – as they build ecological security by internally producing their own food, energy and other critical resources, reusing wastes as resources and reducing reliance on external infrastructures. Developers of this new style of urbanism claimed to offer *the* new and replicable models of development.

Other examples of experiments in both the 1970s and now are energy cities, autonomous cities, renewable cities, low carbon cities, and so on. Patsy Healey and Aidan While will discuss experiments in green urbanism in the 1970s and now.

Architecture and Housing

Many experiments in architecture and housing can be located in the 1970s. To take one example here; the role of local authority low energy housing schemes. In Salford in the late 1970s homes were designed by the local university for the local authority as a means of addressing fuel poverty. Eight homes were built in the 1970s and a further 200 in the 1980s. Construction standards were similar to those of the Passivehouse standard. Recent research claims that these houses use around a quarter of the energy of a typical UK home and were built within government cost guidelines for social housing at the time⁹. Similar schemes were undertaken across the country, such as Milton Keynes with input from the Open University, and the North-East with university involvement there. The Centre for Alternative Technology also experimented with a variety of eco-housing forms, including an adaptation of Walter Segal's self-build timber-frame approach, also pioneered by Lewisham council, in-keeping with autonomous principles.

Low Impact Urban Development (LID) encompasses a range of community-based initiatives that seek to internalise infrastructure and resource flows. LID is important as a site of practical innovation and attempts at low carbon living¹⁰. Although there are important similarities between LIDs and the more commercially and governmentally oriented integrated eco-developments outlined above - in particular the emphasis on autonomy, the development of local technologies, circular metabolisms and the aspiration for greater self-reliance - there are also some significant differences. In particular LIDs stress local and community control of infrastructure and raise wider issues about ensuring more equitable access to environmental resources for low income households.

⁹<http://m.building.co.uk/technical/ecobuild/eco-homes-from-the-1970s-meet-2016-zero-carbon-targets/5020876.article> [08/11/2011]

¹⁰ Pickerill, J., and Maxey, L. (eds.). (2009). *Low Impact Development: The future in our hands*. <http://lowimpactdevelopment.wordpress.com/>

Other examples of experiments in both the 1970s and now are passive houses, solar houses, low energy houses, green houses, eco houses, low and zero carbon houses and so on. Pat Borer and Jenny Pickerill will discuss experiments in architecture and housing in the 1970s and now.

Energy Technologies and Infrastructure

The AT (Alternative Technology) movement flourished in the 1970s¹¹. The AT movement was the R&D department for Utopia. It combined the reality of environmental degradation with the idealism of the New Left and counter-culture¹². Activists were interested in technologies that would serve a society radically different to industrial capitalism¹³. They demanded a transformation of technology systems (and society) into forms that did not threaten ecological catastrophe, and which were much more convivial in use. AT would not be as alienating or soul-destroying to work and live with, compared to the mass production and consumption offered by the large corporations. AT was utopian in the sense that widespread expansion of the niches they created 'would be virtually impossible within the existing structure of society'¹⁴. The movements spawned many demonstration centres, such as short-lived BRAD (whose David Clarke regularly reported progress, or lack of it, in the pages of *New Scientist*), and New Age Access in Northumberland. The Centre for Alternative technology remains a major figure in sustainability experiments and advocacy in the UK, as does the Centre for Sustainable Energy, which began life as the Urban Centre for Alternative Technology.

Community-level responses to the mitigation of both peak oil and climate change are also being undertaken with the intention of developing urgent and planned action at a local level to build the resilience that is deemed to be missing in a globalised, oil-reliant economy. The Transition network was founded in 2005 and consists of small towns mainly in the UK but also including larger cities such as Bristol and Nottingham and communities in New Zealand, USA, Australia, Canada and Germany. Transition Towns are built on the basis of moving away from a dependency on global systems of energy, food, transportation and health production and consumption and - through the re-localisation of these systems - building up local resilience and independence¹⁵. The Transition network questions the pervasive vision of unrestricted global growth and, in response, promotes the mobilisation of local capabilities to develop particular local visions of what a Transition Town looks like. This takes place within the parameters of a wider generic Transition framework and through the development of plans for building community resilience¹⁶. At the same time, there has been a flourishing of renewed

¹¹ Smith, A., (2005) *The Alternative Technology Movement: An Analysis of its Framing and Negotiation of Technology Development*, *Research in Human Ecology*, 12:2.

¹² Veldman, 1994 in Smith, A., (2006) *Niche-Based Approaches to Sustainable Development: Radical Activists versus Strategic Managers in Sustainability and Reflexive Governance*, Bauknecht, D., Kemp, R., and Voss, J-P, Edward Elgar, Camberley.

¹³ Dickson, 1974 in Smith, A., (2006) *Niche-Based Approaches to Sustainable Development: Radical Activists versus Strategic Managers in Sustainability and Reflexive Governance*, Bauknecht, D., Kemp, R., and Voss, J-P, Edward Elgar, Camberley.

¹⁴ Dickson, 1974, in Smith, A., (2006) *Niche-Based Approaches to Sustainable Development: Radical Activists versus Strategic Managers in Sustainability and Reflexive Governance*, Bauknecht, D., Kemp, R., and Voss, J-P, Edward Elgar, Camberley.

¹⁵ Hopkins, R. (2008). *The Transition Handbook: From oil dependency to local resilience*. Green Books: Totnes.

¹⁶ Hodson, M., and Marvin, S., (2010) *World Cities and Climate Change: Producing Urban Ecological Security*, McGraw Hill: Maidenhead.

municipal interest in local, sustainable energy solutions. Pioneering local authorities, such as Kirklees, Woking, Bristol, Bradford, Aberdeen, have seen local energy service companies, delivering solar programmes, and district heating systems in ways reminiscent of municipal entrepreneurship in earlier eras. .

There are a wide range of other community and relocalisation experiments as well as experiments by national, urban and regional government in relation to energy and infrastructure. Dave Elliott and Joanne Wade will discuss experiments in energy technology and infrastructure in the 1970s and now.

