Beyond entrepreneurial cities. Towards a post-capitalist grassroots urban politics of climate change and resource constraint.

Beyond entrepreneurial cities

Towards a post-capitalist grassroots urban politics of climate change and resource constraint

Peter North et Alexander Nurse

Résumé | Index | Plan | Texte | Bibliographie | Notes | Citation | Auteurs

Résumés

English Français

This paper lays out the lineaments of a post-capitalist grassroots urbanism in response to climate change and resource depletion as an alternative to ‘business as usual’ economic development strategies focused on growth maximisation associated with the ‘entrepreneurial thesis’ of urban management. The paper argues that alternative development strategies that do what radical critics argue is necessary to avoid dangerous anthropogenic climate change lack legitimacy within political and economic elites. Debates about a city’s economic development policy are channelled into a technocratic process of identifying models of ‘green growth’ that reduces carbon emissions and generates new jobs and business opportunities in ways that some have labelled ‘post-political’. The paper argues that that radical grassroots critics are mounting a challenge to
neoliberal conceptions of entrepreneurial urbanism and develops a manifesto for what a more strategic urban response to climate change might look like which draws on ‘diverse economies’ perspectives, and which opens up a contested political space for a progressive urban politics of resource crises and climate change. While these ideas are presently underdeveloped, their existence means that debates about sustainable development cannot be dismissed as uniformly post-political.

Cet article analyse les caractéristiques d’un urbanisme post-capitaliste susceptible de répondre à l’enjeu du changement climatique tout en offrant une alternative aux stratégies de développement économique pro-croissance, qui sont généralement associées au tournant entrepreneurial des politiques urbaines. Il souligne que les stratégies alternatives de développement qui s’attaquent aux racines du problème climatique manquent de légitimité auprès des élites politiques et économiques. Les débats sur le développement économique des villes s’apparentent, en effet, à des discussions technocratiques et post-politiques centrées sur l’identification de modèles de « croissance verte » susceptibles de réduire les émissions de CO2 tout en générant de nouvelles opportunités économiques. En s’appuyant sur une description des critiques radicales de l’urbanisme néolibéral, cet article plaide pour la mise en place de réponses plus stratégiques à la question climatique, qui seraient fondées sur l’approche de l’« économie de la diversité » et permettraient d’ouvrir un espace de débats pour l’élaboration de politiques urbaines climatiques progressistes qui, bien qu’étant marginales aujourd’hui, semblent contredire l’idée d’une ville post-politique.

Haut de page

Entrées d’index

Mots-clés :

condition post-politique, crise écologique, militantisme, stratégies urbaines alternatives, villes changement climatique

Keywords :

activism, alternative urban strategies, city, climate change, post-political condition, resource crisis

Haut de page

Plan

Introduction
The entrepreneurial city – a barrier to sustainability?
Introduction

This paper lays out the lineaments of a post-capitalist grassroots urbanism in response to climate change and resource depletion as an alternative to ‘business as usual’ economic development strategies focused on growth maximisation. The paper argues that the ‘entrepreneurial thesis’ of urban management focusing on maximising a city’s economic opportunities in competition with other cities is broadly and uncritically conceived as ‘urban common sense’ by economic development practitioners working for local authorities. These officers argue that maximising ‘growth’ in the form of new jobs and businesses is their task, whilst a concern for the environment is for another day, a problem to be solved once growth has been re-ignited. The paper argues that alternative development strategies that do what radical critics argue is necessary to avoid ‘dangerous’ anthropogenic climate change – i.e. climate change that threatens the continuing viability of human civilisation at current levels of complexity – lack legitimacy at elite levels. This might be by, for example, altering, or eliminating altogether, growth-delivering economic activities with associated high levels of greenhouse gas emissions and/or through unsustainable levels of resource consumption. Consequently, the debate about a city’s economic development policy at a strategic level is channelled into a process of identifying ways to cut the link between greenhouse gas emissions and economic growth by promoting ‘green growth’ that reduces emissions and generates new jobs and business opportunities; and which can subsequently be used to market the green city internationally as an attractive place to visit and in which to live, work or do business. If this meant that both the city’s prosperity was being secured and emissions were being reduced at the rate necessary to avoid dangerous climate change, all would be well. The trouble is, as the International Panel on Climate Change (IPCC 2013) recognises, emissions are not being reduced quickly enough (Anderson and Bows 2011).
The paper argues that while urban responses to climate change and resource depletion are often framed as post-political, uncontroversial ‘win-win’ forms of sustainable development delivered in technocratic ways (Swyngedouw 2007), radical critics of neoliberal urbanism – environmental and climate change activists, members of Transition Initiatives, squatters, housing activists, more radically-minded members of Green Parties – are mounting a (currently underdeveloped) challenge to neoliberal conceptions of urbanism (see for example, Hopkins 2008; Murphy 2008; Klein 2014). They follow Jackson (2009:14) in arguing: “(q)uestioning growth is deemed to be the act of lunatics, idealists and revolutionaries. But question it we must.” This contestation means that debates about sustainable development and the consequences of dangerous climate change cannot uniformly be dismissed as symptomatic of a post-political condition in which the need to avoid dangerous climate change is uncritically accepted. It is not: many elites argue that the climate has always changed and reject assertions that observable changes in climate are either anthropogenic or ‘dangerous’ (Hulme, 2009). While neoliberalism and the entrepreneurial conception of urbanism that it engenders is pervasive, and there are powerful forces that seek to marginalise dissenting voices, a diverse economies perspective would uncover a broader, less restrictive discursive terrain in which radical voices can develop alternative agendas and prefigurative examples of alternative urbanisms.

1 The authors wish to thank the ESRC (grant reference RES-185-31-0113 and ES/J010618/1) for its supp (...)

With this in mind, the paper develops a manifesto for what a more strategic post-capitalist rather than post-political urban response to climate change might look like. This has to be speculative – or in some eyes utopian – at this time: while cities covering twelve per cent of world population are engaging in action to avoid dangerous climate change (de Moncuit, 2014), no cities are engaged in the fundamental transformation of the metabolism of urban life that radical critics argue needs to happen. The paper contains reflections based on research into utopian urbanisms over the past twenty years undertaken by one of us (e.g. see North 2006) and, more particularly, on observations of the low carbon policy making process from a research project that explored what policies our home city, Liverpool, needs to combine prosperity with avoiding dangerous climate change (North, 2013a, North and Barker, 2011).

The argument is developed as follows. The paper first lays out the core elements of the Anglo Saxon ‘entrepreneurial city’ thesis, and argues that an underlying and uncritical commitment to growth and to the maximisation of economic activity without associated cuts in greenhouse gas emissions and resource throughputs represents an obstacle to the avoidance of dangerous climate change. The paper then draws on conceptionalisations within economic geography of ‘diverse economies’ developed by JK Gibson-Graham (2006a,b) and others to draw out the lineaments of alternative, grassroots urban climate strategies to create the
sustainable and egalitarian city in which prosperous and thriving economies are generated within environmental limits. It argues that these conceptions form the basis for a grassroots-generated local politics of economic development that critiques unsustainable forms of ‘growth’ and rethinks what ‘prosperity’ means in low carbon ways (Jackson, 2009). The paper argues that this opens up a contested political space for a progressive urban politics of resource crises and climate change that characterisations of either ecological modernisation (Mol, Sonnenfeld et al. 2009) through which the climate crisis is addressed to secure continued capital accumulation, of ‘capitalism’ as inherently ecocidal (Foster, 2002, Kovel, 2007), or that debates are post-politically constrained (Swyngedouw 2007), would occlude.

5The paper concludes by recognising that for adherents of ‘green growth’ many of these ideas will, at present, be unconvincing, utopian, unrealistic. Inspired by diverse economies perspectives, the paper works from the perspective that ‘not yet’ does not mean ‘never’ and that recognising that there are powerful ideological forces in the form of neoliberalism and entrepreneurial urbanisms arraigned against the project of alternative urbanisms does not mean either that these forces are all powerful, or that developing alternative perspectives is fruitless. This vision of a radical grassroots urbanism needs to be developed through the hard work of local experimentation which focuses on what could be, rather than what currently is. The postcarbon city constructed from the grassroots up could be more than a low carbon version of the current unequal, unhealthy, geographically uneven, crisis ridden neoliberal urbanisms. Further, it argues that local grassroots green urbanism is not destined to be tamed and redefined in post-political neoliberal ways, and that there are alternatives to participation at strategic levels in urban management (North and Bruegel, 2001).

The entrepreneurial city – a barrier to sustainability?

6The paper works from the perspective that, for Anglo-Saxon cities at least, conceptions of ‘urban entrepreneurialism’ (Hubbard and Hall, 1998, Oatley, 1998, Harvey, 1989) emerged through the urban crises of governmentality and stagflation after the 1973 oil shock as the post-war Keynesian settlement began to unravel and be challenged by a new right committed to the ‘rolling back’ of the state (Peck and Tickell, 2002). The paradigm argues that urban economies should grow, maximizing the number of jobs and businesses that are generated, thereby increasing the welfare of citizens. Higher wages, more businesses, higher house prices and more consumption means more economic activity and more happiness.

7To secure this happy state of affairs the entrepreneurial thesis suggests that
cities should and would now compete for mobile capital in an environment where cheap communications technologies and fuel meant that capital could increasingly seek a ‘spatial fix’ to problems of profitability by moving to places where labour costs are cheaper and levels of labour and environmental regulation lower (Harvey, 1992). Often the perception that capital can move if its needs are not met is enough – no threats need to be made, no often expensive and locally integrated plant dependent on local supply lines is actually uprooted and moved. Politicians, local and national, have internalised this discourse of powerlessness, arguing that they can’t stop firms moving. All they can do, they argue, is make the transition from industrial to post-industrial economy as smooth as possible and make sure their residents benefit from what they regard as the only feasible source of new jobs and opportunities.

Business competitiveness, rather than social justice and citizenship, is the logic of entrepreneurial urbanism whereby cities must make themselves as attractive to footloose international finance as possible, forgoing any ‘costly’ social programmes likely to be dismissed as a ‘burden on business’ by multinational companies who might otherwise invest in the city (Peterson, 1981). City leaders have to follow the logic of urban competition by making their labour costs as competitive and regulations as light as possible, providing infrastructure, and making administration business-friendly. The image of the city is projected to make it as attractive as possible for business (Short et al., 1993, Roberts and Schein, 1993), or, more recently, for the new ‘creative class’ which, through cultural innovation, is seen as a key driver of postmodern, information-based urbanism (Florida, 2004, Peck, 2005, Bianchini and Parkinson, 1993). Cities have to be change agents, not just social structures (Cox and Mair, 1991). Consequently, a major role in urban governance, in the US especially, is given to ‘growth machines’ focussing on the realisation of the maximum return from downtown urban real estate (Logan and Molotch, 1987) or, more generally, to more pluralistic urban ‘regimes’ (Stone, 1989) which bring public, private and community-based actors together to develop a consistent urban narrative of place and a governing coalition enabling it to be successfully delivered.

While ubiquitous, the paradigm is not without its critics. Many European cities do take social inclusion more seriously. Multinational businesses are often more locally embedded and less mobile than they say they are, and uprooting a business from its local supply chains and from sources of skilled labour is not as easy as businesses who threaten to move claim it is (Cox, 1997). Critics argue that urban policies that focus on the needs, wants and desires, or the existing or realistically achievable skillsets of local people are de-emphasised in favour of support for inward investment for which residents are supposed to make themselves job ready, policed through active welfare and workfare policies. It may be, critics argue, that better welfare outcomes would be generated by concentrating on developing endogenous business than providing investment incentives, or, for some, corporate welfare to multinationals who provide relatively few jobs (Cato, 2004). Mooney argued that urban strategies focussing on welfare,
social inclusion or the environment are side-lined, and real problems – poverty, poor health, low educational levels – are displaced in the public imagination (Mooney, 2004). Thus John Lovering (1995) famously argued that all entrepreneurialism generated was vacuous mission statements about place that could not be differentiated from each other, or ‘making sameness’ (Griffiths, 1998). Jamie Peck and Adam Tickell (Peck, 1995, Peck and Tickell, 1995) pointed out that the real generators of urban strategies remained local authorities, with local business elites being deployed strategically to provide an illusion of partnership and consensus around local strategies.

But in its own terms, or so it seemed to urban managers, the entrepreneurial thesis did seem to “revitalise” selectively the cities, by providing jobs in the tourism, finance and knowledge economies in city centres, inaccessible to those who had lost them in manufacturing (Harvey, 2001b), by increasing visitor numbers, or at the very least by creating the perception of cities as having ‘turned a corner’. Outside the city centre, however, often little had changed (Boland, 2010). Part-time minimum wage casual jobs replaced full-time unionised jobs. Many poorer parts of the city were passed-by through these processes of uneven development or worse, saw social investment in their services decline to pay for new conference centres international events to show the city off to business investors. Places bypassed by revitalisation would be subjected to social control to civilise or weed out those who do not fit the new expectations (Coleman and Sim, 2000, Ward, 2003).

Even though it is problematic, the simplistic attraction of discourses of ‘growth’, that a rising tide will eventually raise all boats and that with training and other supply side and active welfare programmes inner city residents can be empowered, or disciplined, into taking the new opportunities is hegemonic. Alternatives are not taken seriously by urban managers. Some communities did challenge the new urban logic, organising to defend their community services (Mooney and Poole, 2005) but credible alternatives seemed to lack the same plausibility in the eyes of urban leaders, if they were held in higher esteem in the academy (Imbroscio, 1997, DeFilippis, 2004, Peterman, 2000). The local socialist and progressive urban strategies of the 1980s (Boddy and Fudge, 1984, Clavel, 1986, Mackintosh and Wainwright, 1987) were eclipsed and neoliberal urbanism seemed dominant. The advent of the credit crunch of mid-2007, the following recession and austerity policies that followed in the UK if anything made the re-ignition of urban growth a priority (Meegan et al., 2014). Austerity urbanism (Peck, 2012) saw cities engaging more and more in entrepreneurial actions to develop innovative (for advocates) or speculative and risky (for critics) ways of securing their future prosperity through financial experimentation in difficult times.

Cities, climate change and the
While the entrepreneurial thesis attempted to understand how cities engaged with the transition to a more globalised postfordist economy, two new issues emerged in parallel with globalisation that potentially undermined entrepreneurial urbanism’s potential to create vibrant, prosperous cities: dangerous climate change and resource crises. Of course, while a poor environment and dealing with wastes has been a problem for cities since the dawn of urbanisation, anthropogenic climate change emerged more centrally as an issue through the 1990s as global long-series temperature readings and observable extreme weather events all suggested that the planet as a whole is warming, perhaps dangerously (Lovelock, 2006, Anderson and Bows, 2011). The International Panel on Climate Change (IPCC, 2013) identified a scientific consensus about the dangers of dangerous climate change, and suggested that emissions of greenhouse gasses need to be cut significantly with the result that the UK Government legislated that emissions needed to be reduced by at least 80% by mid-century (Hodson and Marvin, 2013). What would be the implications of this for cornucopian conceptions of urbanism that stressed unlimited global urban competition based on cheap fossil fuel and externalised greenhouse gas emissions (North 2010a)? Are there real limits on the extent that cities can grow? Do cities have a responsibility to act to minimise their greenhouse gas emissions and to develop a local economy based on an urban metabolism that balances resource consumption and emissions of greenhouse gases and of other pollutants to levels that the ecosystem can manage? This is a problem at a higher level than protecting or enhancing urban environments and handling the disposal of wastes: it goes to the heart of the long-term viability of human civilisation. It needs a new economic ethics for the anthropocene (Gibson-Graham and Roelvink, 2010).

For comparison, at the time of writing (October 2014) a barrel of Brent Crude cost $93.

In the 1970s ecologists argued that there were fundamental ‘limits to growth’ in the closed system of planet Earth (Meadows, 1974), while more optimistic critics argued that technological progress would enable growth to continue in sustainable ways (Cole et al., 1973). By the turn of the twenty-first century, these ‘limits’ theorists argued that the planet was finally coming up against some of these long predicted limits (Meadows et al., 2005), while theorists of ecological footprints argued that the ecosystem was unable to provide resources for, and absorb the wastes from, a lifestyle as resource intensive as that in the global North if it was adopted by everyone on the planet (Wackernagel and Rees, 1996). In similar manner, ‘peak’ theorists (Heinberg, 2004, 2007; Kunstler, 2006, Roberts, 2004) argued that the planet did not have the resources necessary to power carbon-based growth indefinitely, and that, in particular, the peak of production for oil was close at hand. These theorists did not argue that key resources would soon be completely unavailable, but that they would soon be both more scarce...
and harder to obtain, with the result being that the market for these products would be more volatile. So while oil often retailed for $10 a barrel in the 1980s, in 2007 the price hit $147 a barrel before falling back to around $100 a barrel\(^2\) as a result of a number of factors: market speculation, geopolitical events, increased refining capacity, and the global recession cutting demand (Bridge and Le Billon, 2013). Some peak theorists go as far as arguing that these fundamental resource constraints mean that complex carbon-based resource intensive forms of society do not have a future: they will inevitably unravel (Homer-Dixon, 2006, Greer, 2008). The implications of this, activists argue, are that it is necessary to take steps to create cities that are not dependent on oil, and an urbanism that potentially could be more enjoyable, ecologically sustainable and inclusive than growth-based urbanism (Astyk, 2008, Hopkins, 2008, Murphy, 2008). The alternative, they argue, is to enter a new age of conflict over resources and of increasing global inequality. These perspectives inspired new social movements taking direct action against those responsible for dangerous climate change, in particular the Transition Towns movement which looked to develop sustainable post carbon livelihoods (Bailey et al., 2010, North, 2011b).

14 Peak theorists and the social movement activists that support their views argue that climate change and resource constraint need to be seen as intertwined issues. The ecosystem is struggling to continue to provide abundant and cheap resource inputs that fuel complex urban society, while climate change is evidence that that the planet is struggling to absorb its waste products. Thus many technologically-advanced solutions to climate change may come up against resource limits: for example, supplies of lithium for electric car batteries, uranium for nuclear power stations. The implication of this resource constraint is that society lacks the cheap and plentiful resources required to continue to power cities as they are currently organised. Going further, avoiding dangerous climate change suggests that the continued exploitation of both identified and yet to be discovered conventional and unconventional fossil fuel resources (fracking, tar sands, biofuels) should be curtailed. Oil should be ‘left in the ground’ as an unexploitable, and thus valueless, resource. Thus for radical critics resource constraints and climate change are fundamental challenges to cornucopian conceptions of entrepreneurial urbanism based on never-ending growth underpinned by externalised greenhouse gas emissions, and cheap fuel and communications technologies.

The sustainable, post-political entrepreneurial city?

15 While there was a scientific consensus on existence of and the danger from anthropogenic climate change, there was less agreement about what to do about it (Hulme 2009). Some doubted human agency was the cause of climate change at
Many local economic development managers accept the reality of global warming but do not accept that the climate and resource crises are as acute as radical critics claim. For them, the immediate issue is reigniting growth in the form of new jobs and businesses, after which the climate can be addressed through ‘green’ growth that balances economic growth with social inclusion and environmental protection (Gibbs, 2002). In time, through processes of innovation a more thorough transformation of the economy is envisaged through ecological modernisation (Jänicke, 2008, Mol et al., 2009) through which the economy is switched from an industrial to an ecological mode through the diffusion of clean technologies. Conceptualisations of ‘smart growth’ look to identify ways to grow economies that are emissions light (Krueger and Gibbs, 2008, Herrschel, 2013). Even Marxist critics can have faith in what Marx celebrated as the creativity of capitalism, arguing that solving problems associated with climate change and resource crises will become a new accumulation strategy underpinning continued capitalist development (Buck, 2006). Here transitioning the city economy to a low carbon state need not affect the fundamental logic of entrepreneurial urbanism (Gibbs, 2000, Kiel and Desfor, 2003). As a result, urban managers would sometimes enrol soft green policies in the service of urban entrepreneurialism (Béal, 2011), and a number of cities have embraced a local politics of climate action in more or less strategic ways (Bulkeley, 2010, Bulkeley and Castán Broto, 2013, Castán Broto and Bulkeley, 2013, Hodson and Marvin, 2013). Some of these approaches are more progressive than others (While et al., 2004).

Thus later iterations of ‘roll out’ neoliberal entrepreneurial urbanism attempt to secure the primacy of entrepreneurial urbanism by including environmental and social elements in local growth strategies, at least up to the onset of the financial crisis in 2008 which gave a new boost to the primacy of competitiveness in competition with other cities for what was now a smaller cake. But securing growth was still paramount, and anything that did not contribute to growth was ruled out of court. Urban strategies became technical, unproblematic ‘post-political’ discussions between elites and technicians about the best way to secure growth in a globalised economy (Swyngedouw, 2007). As the participants at a meeting we observed at which local economic development officials discussed what a low carbon agenda for Liverpool would look like were told, in no uncertain terms, “this is not about hair shirts: it’s about growth. If it does not generate jobs we’ll find something that does”.

Consequently, fundamental critiques of growth are blocked. Ecological and technological limits arising from resource constraints are ignored, and technological optimism rules supreme. Hard choices are ducked. The fundamental tension between urban strategies built on carbon intensive travel and consumption, with emissions externalised, is not recognised at all. Manufacturing would continue to be outsourced to places in the global South with lower environmental standards, and the carbon embodied in goods produced elsewhere and emissions from transporting goods to the North are ignored. Also disregarded are the emissions of businesspeople and citybreakers
flying to cities to partake of the cultural festivals generated by the new urbanism (North, 2010a). Airports will be expanded and travel made easier to facilitate new growth and connections in a world of neoliberal free trade. Few cities have engaged seriously with the implications of peak oil (Lerch, 2007) or with imagining how a city might positively embrace degrowth and shrink (Bernt et al., 2014). Even rustbelt cities like Detroit do not passively accept that there might be no rationale for a city that size in that place any more. They continue to envisage a rebirth despite past disinvestment, bankruptcy and the reintroduction of urban agriculture on former city lots (Binelli, 2012). The tone of these analyses means that we have a new, entrepreneurial, technocratic post-political consensus in which radical urbanisms have no future.

Towards progressive urban emissions reduction strategies

18 Academic writing, especially of a structuralist and Marxist nature, can often be complicit in the silencing of radical voices and visions. Ordinary people can be portrayed as the playthings of hegemonic forces that they do not fully understand, if they perceive them at all, while activists at best face an unequal battle. Consequently, while activist writers have generated many ideas (Dauncey, 1988, Trainer, 1995, Murphy, 2008, Carlsson, 2008, Hopkins, 2008), apart from David Harvey’s (1996:401) engagement with ecological modernisation and environmental justice, little rigorous academic thought has been given to how climate change and resource constraint might be integrated into progressive local economic strategies at the urban scale. This would mean going beyond green growth as a new accumulation strategy that ignores questions of equality, redistribution and social justice. Might conceptions of alternative urbanisms being developed in prefigurative ways by climate activists point towards a new, egalitarian, more convivial urbanism in which prosperity and thriving in the city is not related to the consumption of ‘stuff’? A post-capitalist urban politics of climate change and resource constraint would focus not on growing the number of jobs and business but addressing how citizens wish to live with each other, with other species, and with generations to come. It would question what kind of urban environments need to be produced and what kind of common ‘goods’ – clear air and water, public land, community feeling (Gibson-Graham and Roelvink 2010) – need to be maintained and shared.

- 3 ICLEI, Local Governments for Sustainability, promotes a methodology for monitoring this. See http: (...)

19 There are a number of theoretical engagements with alternatives to growth that could be drawn on such as the emerging degrowth movement, and Herman Daly (1996) and Peter Victor’s (2008) analysis of a range of macroeconomic and policy
approaches to the management of market economies without growth. Amartya Sen’s (1999) ‘capabilities’ approach sees prosperity as an ability to choose whether or not to take part in the normal life of the community, enjoying its freedoms and opportunities, adequately nourished and free from avoidable morbidity. Building on Sen’s work, Tim Jackson (2009:35-48) argued that prosperity could be reconceptualised away from a growth in consumption and in resource throughput towards socially inclusive human flourishing with reduced environmental impact, involving a greater emphasis on cultivating feelings of subjective wellbeing and happiness rather than on growing the consumption of material commodities. Jackson argues for a conceptualisation of human wellbeing not as ‘opulence’ or conspicuous consumption, but as the capacity to live well within the resource and ecological limits given concrete population levels, resource endowments, and technological capabilities (2009:45). More concretely, a progressive climate urbanism would facilitate the transition to a low carbon economy in which emissions levels are falling over time at a rate sufficient to avoid dangerous climate change in the future as well as resilient in the face of more immediate threats. Resource throughput would be minimised. The rights of other species would be respected and biodiversity preserved. A sustainable city needs to be a healthy, socially inclusive, and happy place in which to live and work, where the fruits of transition are widely shared within an overall conceptualisation of environmental justice (Harvey 1996:401). It would need to engage with (1) issues of responsibility (who should to what, and how quickly), (2) the balance between adaptation to inevitable in the system change, and mitigation to avoid dangerous, or even catastrophic climate change, and (3) the balance between flourishing in vibrant more localised economies and trading fairly to ensure global justice.

Geographies of Responsibility

A progressive climate urbanism would take account of what can be done locally that will make a difference to what is a planetary problem, and which are likely to prove to be irrelevant or merely cosmetic if other cities are not doing the same. Is it necessary to more fundamentally change the global processes through which resources are transformed into commodities that are circulated around the globe, consumed, and eventually discarded (MacKinnon and Derickson, 2013)? On one hand, all greenhouse gases are emitted somewhere, so it obviously makes sense to limit them at source – locally (Agyeman and Evans, 2004). Cities are sources both of emissions and innovation, as the status of many cities as beacons for environmental innovation attest. Cities can inherently be sustainable with proximity minimising the need for transport (and thus emissions and resource throughput), and facilitating sharing and recycling. Food can be grown and power generated in cities close to where those who use them live. In cities residents are able to access high quality public services (parks, libraries, sports centres) that reduce the need for individual consumption. Cities, then, are good sites for local climate action. On the other hand, while every molecule of greenhouse gas is
generated and emitted through specific processes in specific places, policies to reduce greenhouse gas emissions in total need to be multi-scalar in nature (Bulkeley, 2005, Bulkeley and Betsill, 2013), involving action at both local or city level and collective action at the global level (Wolf, 2012). Radically cutting emissions or forgoing or avoiding consumption very locally with no attention to unsustainable practices at other scales and in other places seems will be ineffectual if the benefits of action in one place is wiped out by what is done elsewhere – the local trap (Brown and Purcell, 2005).

21 There are differing geographies of responsibility (Massey, 2004) for historical and contemporary emissions to take account of. Some cities, for example, our own, Liverpool, are not currently significant emitters of greenhouse gas. However, as the city’s UNESCO World Heritage Status attests, the city is the site from which the fossil fuel-driven global trading system that is responsible for global warming originated and as a result, in this way of thinking Liverpool has a responsibility for significant historical emissions (albeit that this has only been understood in retrospect). In contrast, cities in developing and emerging countries might be high contemporary greenhouse gas emitters, but their historical responsibilities are minimal. In such a context, there is a strong need to balance responsibilities for taking action to avoid dangerous climate change with the right to development in a resource constrained world (Baer et al., 2007).

22 An attention to these geographies of responsibility would also recognise that cities in different places will be impacted in diverse ways by climate change. For example, action to mitigate oil shortages in the global North through the development of biofuels and ethanol had catastrophic repercussions for global food prices, affecting residents in cities developing countries, who did not rely on substance farming, very adversely. Cities in cool northern latitudes might be short-term winners from global warming, while for some more vulnerable cities in the global South climate change is not a problem for the future, but a survival problem for today. They have to cope today with storms, heatwaves, wildfires, rising sea levels and the like. Local action therefore needs to be balanced with an understanding of the effect it has on people far away and in the future. Without equality of effort and sacrifice, what Julian Agyeman and Bob Evans call ‘just sustainability’ (Agyeman and Evans 2004:160-161), there will continue to be a perception that those in the global South who have little historical responsibility for in-the-system warming and who are sometimes suffering from the effects of climate change now are expected to forego development. Any progressive strategy must ensure equality of contribution to maintaining the global environmental commons in what is, effectively, the greatest collective action problem that the world has ever faced (Wolf, 2012).

- 4 Who can be opposed to ‘spraycan’ concepts like ‘community’, ‘healthy’ or ‘sustainability’, terms w (...)

23 A progressive urban politics of climate change and resource constraint would
need to engage with issues of measurement and temporality. How much climate change is mildly beneficial in some places, catastrophic in others? How much should emissions be cut, and how quickly? What do we have to stop doing to avoid catastrophe everywhere on the planet? Is it possible to consider an urban accumulation strategy that includes flying sustainable in the long run, or do we make a more short term judgement that at present flights represent a small element of total global emissions compared with those from coal-fired power stations, and the benefits of international commerce and connectivity outweigh any emissions reductions at this time (James Hansen’s view)? What is catastrophic heating – above 2°C or CO\textsubscript{2} levels of more than 350, or 450 ppm (Hansen et al., 2013)? How difficult are things likely to get (Hansen, 2009)? Climate science suggests that there are ‘tipping points’ when climate processes change radically, literally in months, from one state to another (Broecker, 1987). As considerable warming is inevitable as it is ‘in the system’ but has yet to be experienced, how much of a change should be made and when – and how will it be known, locally, if these changes are enough? Measuring the immeasurable and unpacking local from global effects is difficult and problematises the development of urban strategies which make a real difference, as opposed to post-political ‘spraycan’ soft sustainability, or feel-good gesture politics which cover up the fundamental unsustainability of contemporary urbanism (Blühdorn, 2007). While it is possible to count emissions retrospectively and allocate future carbon budgets, it is difficult for any one actor to know if they are doing enough, in relation to what everyone else is doing.

**Adaptation and mitigation**

These progressive climate strategies must include both adaptation (adapting to changes that are inevitable given warming that is already in the system) and mitigation (minimising the amount of warming in the future) (Adger et al., 2005, Bicknell et al., 2009). Adaptation can be addressed in a number of ways, including technical adaptation of the existing urban form to handle higher expected summer temperatures, storms and floods; risk and disaster management; and psychological adaptation to what an uncertain future might hold for residents. Are residents’ homes likely to flood or be storm damaged? If so, can they get insurance, or will they have to abandon them eventually? What might the implications of continuing high oil high prices and scarcity be for their jobs? Consequently, Hodson and Marvin (2009) argue that ‘ecological security’ through which a city aims to future proof itself against ecological threats will become the touchstone for urbanism in an era of climate change and resource constraint.

So what should be a progressive conceptualisation of adaptation and security? Perhaps the paradigm of the unsecure city would be the New Orleans that Katrina devastated. The state did not maintain the levees. When the hurricane hit, citizens were left to fend for themselves. Those with private transport survived, those without were left to their fate, perhaps branded as looters and even shot as
such – especially if they were black (Comfort, 2006). Then, the disaster was used to clear out those the state regard as undesirables – poor, mainly black people – and rebuild the city for wealthy (white) elites, with privatised urban services replacing public provision (Peck, 2006). A progressive strategy, working from an environmental justice perspective, would recognise that the most vulnerable citizens socially are often the most vulnerable environmentally, and specifically ensure that class and race is not a predictor of who is likely to survive disasters (MacKinnon and Derickson, 2013). Deprived groups should not be left to adapt their homes and communities for new climatic and resource conditions, make their own preparations for disaster, and repair the damage within their own limited private resources. Adaptation should be social and collective, not individual. It should be comprehensive, planned and state-led through active urban management, not privatised, piecemeal and dependent on ability to pay and individual decisions about how to respond to risks.

26 Linking to an understanding of geographies of responsibility and global climate justice, a progressive conceptualisation of adaptation should balance the need for a city to pay attention to its own resilience with its international responsibilities. Some more wealthy cities in ecologically favourable locations might well be able to handle their adaptation needs quite easily, whereas a city with a poorer social and economic inheritance in a more vulnerable location should not be left to cope alone – redistribution from favoured to less favoured places would be necessary both within geographically uneven nations, and internationally. Further, a progressive strategy of adaptation would discourage cities from thinking of themselves as lifeboats, meeting their own needs (food, power, water) as locally as possible with no concern for how less well-endowed cities might cope. Climate change will lead to population movements: better endowed cities will need to absorb environmental refugees, not secure their own future and leave the less fortunate to get by as best they can (Hodson and Marvin 2009:18). This obviously has implications for urban politics and for social cohesion, with the xenophobic and nationalist movements attempting to capitalise on fears associated with migration and demand limits on the right to travel and migrate which they justify ecologically. This, coupled with surveillance over and regulation of individual consumption habits, could be a recipe for an authoritarian ecological urbanism (While et al., 2010).

27 A progressive urban politics of climate change and resource constraint would have to engage with the trade-off between adaptation and mitigation. Focusing on adaptation to the exclusion of mitigation in a post-political way can lead to a politics of quietism, fatalism and passivity. A post-political focus on adaptation alone assumes that present day consumption patterns will be maintained, and that there is no appetite for large scale cuts in consumption or changes in urban socio-economic systems. It assumes that growth-based capitalism has no real alternatives and that any urban politics that does not provide for economic growth will be electorally unpopular. A progressive climate urbanism must challenge systems of domination that prop up unsustainable practices, including
conceptualisations of urban entrepreneurialism based on unsustainable levels of travel and consumption by elites serviced by armies of poorly-paid casual service economy workers. Mitigation must therefore be a key element in any progressive response to climate change. Economic development must be decarbonised and provide more socially egalitarian outcomes. This suggests going beyond post-political green entrepreneurialism, i.e. a city that looks much like it does now but with emissions radically reduced, the technologically sophisticated electric urbanism of the smart city.

**Flourishing locally and trading fairly**

A radical climate urbanism would build on Jackson’s (2009) focus on flourishing, resilience and conviviality rather than maximising profit, jobs and business growth. It would stress emissions and resource throughput reduction and equality, democracy, local ownership and control. Attention would be paid to developing alternative plans for currently unsustainable or questionable forms or business and developing publically-owned and community-controlled sustainable urban services. The climate and resource crises might be seen as a way to harness new environmental technologies for the construction of a more convivial, democratic and inclusive post-capitalist economy (Neale, 2008, Murphy, 2008). Rather than lecturing citizens about their individual responsibility to cut consumption while (for example) providing flights at a fraction of the costs of train travel or poor levels of public transport such that people need a private car, the city would be organised so that a low carbon lifestyle was obvious, easy to achieve, and enjoyable. Opportunities for participation and engagement with the process would be maximised.

Finally, a progressive urban politics of climate change would be to some extent localist – but not autarkic (North 2010a). It would support local businesses, co-operatives and social enterprises, local banks and credit unions, and other community-based financial institutions (DeFilippis, 2004). It might well include more local production of things that can be produced locally (food, goods to meet basic needs, power) in order to reduce emissions from transport. Decisions on where to produce things would not be based on an understanding of where they can be produced the most cheaply or to generate the most profit, subsidised by cheap fuel and externalised emissions. Localisation would mean that emissions produced through transporting goods that could just as easily be produced closer to where they are consumed would be saved (Shuman, 2001). Cities and regions would become more integrated economic spaces minimizing wastes and transport costs, developing interdependent networks of enterprises that collaborate, exchange resources, recycle, and use each other’s waste as inputs (Hudson, 2007). Local economic welfare would focus more on quality of life, good, wholesome food, time for family and friends, and providing low-carbon homes, very much the perspective of the degrowth and ‘slow city’ movements of continental Europe (Pink, 2008, Fournier, 2007).
There are limits to this. Decisions about where production should be located would be taken on a basis of where it makes most sense from a perspective of economic efficiency, the minimisation of avoidable transport costs and the consumption of limited fossil fuels and greenhouse gas emissions associated with avoidable transport, and global social and economic justice. It would also be necessary to recognise that some places might be better placed to produce certain goods and export them, that there are limits to what can be produced very locally (for example, windmills, photovoltaics, electric cars, tidal barrage power stations) and that consumers do appreciate a diversity of consumption choices. As long as the costs of transport are bearable within carbon budgets or ecological limits, localisation does not mean autarky (Woodin and Lucas, 2004, Hines, 2000, Lang and Hines, 1993). Where fair trade makes sense to both participants, and the emissions associated with it are minimal, it would continue. What to trade and what to produce locally is an ethical decision, not merely one subject to market forces.

The point, however, is to change it

How could such a strategy be enacted? It could start from engagement with local participatory institutions that are engaging with sustainability. An optimistic climate politics would not assume a priori that these are post-political institutions to be ignored: there might be benefits from participation and engagement. This is the approach we have taken in Liverpool through our work with the Liverpool Green Partnership (North, 2013a). However, once it had become clear, perhaps through this engagement, that these are post-political institutions in which the terms of the debate are limited to green growth and technocratic solutions, continued engagement with post-political institutions would be misplaced, perhaps utopian. There are alternatives to being self-limited by the post-political condition. Working from a diverse economies perspective, an optimistic and radical climate change urbanism would start with visions, developing new stories about how the city could be. A diverse economies perspective would see local residents’ skills, needs, visions and aspirations as generators of self-employment and of new small and social enterprises that will create the jobs and opportunities of the future. Residents here are a fount of an alternative conception of entrepreneurialism and mutual aid that sees citizens as creative people providing solutions, a supply of labour that is a resource, and a source of previously untapped demand (Cahn, 2000). In other words, an alternative climate urbanism would focus on endogenously developed economic strategies based on the visions and needs of local people as opposed to outward facing neoliberal urbanisms built on an understanding where the city sits within a global division of labour in competition with other cities. Residents are helped to create the sort of economy they want to see and that helps them live the kind of life they want, not atomised individuals expected to make themselves competitive in order to be able to access opportunities provided by inward
investors, in competition with other residents of their and other cities.

32 From visions, the next question would be to ascertain what resources are available, and that could be deployed to enact the vision, to produce and perform a thriving, convivial and inclusive city (Gibson-Graham, 2006b, 2008, Gibson-Graham et al., 2013). Perhaps a good place to start is the production of goods and services that are easy to produce, and which are used every day, food, and power. First, identify opportunities for developing local production. What can be produced locally? What will always have to produced elsewhere given their complexity and questions of local climate and resource endowments (Scott Cato, 2006)? Then look at what ‘factors of production’ – people, natural resources, machines, power sources – are available locally. For example, the city might be close to a large supply of timber, but little furniture is produced locally. Could the wood needed to set up local furniture production be sourced locally, perhaps paying for it with local money (North, 2010b)? Second, develop opportunities for local food production. It is clear that more and more consumers want to have access to locally produced, high quality and perhaps unusual food and drink. How much urban land, green verges, railway lines and the like can be utilised for food production without replacing parks with industrial agriculture? What attractive edible plants could replace the current ornamental plants? The limiting factor here is climatic and soil resources. Is this a fertile area, if so, for what crops? How much food can be grown locally both in the city through urban agriculture, and in the hinterland, perhaps through community-supported agriculture (Pinkerton and Hopkins, 2009). Third, analysis would focus on the extent that power can be generated from local renewable sources, be it wind (in windy places), hydro (hilly, wetter places) or solar (in lower latitudes). This would be largely dependent the availability of and locations of renewable energy resources: how much wind, hydro or solar power can be accessed, how much space is available for what size wind turbine, hydro system or array, what income could be generated from it? Community-owned local renewable energy could provide an income for local residents, and provide for local resilience in the face of uncertain energy futures, as has been demonstrated in Denmark and Germany (Cumbers, 2012).

5 More radical critics would, of course, look for production for use and see distribution through sh (...)

33 Then, moving on from the production of the basics, a progressive climate urbanism would facilitate making ethical choices about what forms of economic activity fit with the vision. Is the distribution of goods to be through big retail chains that use complicated financial vehicles and accounting practices to minimise their tax obligations in that territory, that repatriate profits to their head office and/or an offshore tax haven, and that externalise emissions transporting goods produced in unfavourable social and economic conditions in the global south? Or would distribution be through local shops owned by our neighbours, people who care about the community they live in, and from which their customers are drawn (Mitchell, 2006)? It would focus on developing
opportunities for employment and small business through the delivery of services in low carbon ways. More and more people would employ each other to provide services for each other, allowing them to develop and use their skills (a specific objective of the alternative currency networks developed by advocates of green urbanisms in the past twenty years: see North 2010b).

5 An alternative urbanism should also be convivial. George Marshall (2007) suggests using local labour to do provide low carbon treats – cooking meals, sorting out gardens, advising on how to grow food, fixing things – as alternatives to high carbon treats like fast cars, low cost flights, or international city breaks.

Conclusion

6 Readers whose first language is not English might not recognise this reference to Charles Dickens’s ...34

This paper has examined the extent that climate change and resource constraints represent a fundamental challenge neoliberal entrepreneurial urbanism. Radical critics suggest that we cannot unproblematically decouple growth from greenhouse gas emissions and the consumption of limited resources. Of course, it could be that they are wrong and cities could be ecologically modernised to avoid dangerous climate change and resource constraints much like they were industrially modernised in the 19th century as drains, gas, electric and mass transport were introduced (Hunt, 2005). Local economic development agencies could – and the most innovative ones do - promote “roll out” low carbon urbanisms that do attempt to include climate change policies, minimising wastes, cutting the use of hydrocarbons out of industrial processes, and developing new ways to power cities in low carbon ways and shortening supply lines. There are many examples of actually existing sustainable urbanisms, some of which have more meat on the bones than others, some of which are more than post-political. For radical critics, however, there are still three objections to this: first, nothing is being done to radically address the structural causes of dangerous climate change – the technological processes and levels of consumption associated with high mass consumption society; second, there is a Micaubrist reliance that ‘something (technological) will turn up’; and third, the exploitation and urban inequality associated with neoliberal forms of capitalism is not challenged. The profits from low carbon innovation in this form of market economy still go to the few, and the needs of the many are not addressed.

35 Consequently, these issues should be explored with a clear head. Some places do seem to be more endowed with a pre-existing grassroots alternative milieu composed of actors who see the city in different ways from whom a more radical climate urbanism can emerge (Amin, 2009, Amin et al., 2002, Clavel, 1986, Longhurst, 2013). Many of the cities where action to avoid dangerous climate change is the most developed are those with strong grassroots environmental
networks such as Seattle (Rice, 2010), Austin, Texas (Fitzgerald, 2010) or New York where PlaNYC, while not perfect, represents one of the strongest attempts to address climate change in ways that engage communities (Rosan, 2012). These networks can form grassroots innovation niches developing concrete examples of new ways of living in the city (Seyfang and Smith, 2007). Other communities might need to start with seeing what looks like a desperate situation in more optimistic ways, spend time developing new visions of what could be (Cameron and Gibson, 2005).

Secondly, building a resilient, resourceful and convivial local economy is a difficult job given the depth of interconnectedness of a globalised economy, and will not be easy (North, 2013b). These community-generated economic institutions might at first be insecure and precarious, perhaps more prefigurative than concrete. Austerity makes it more difficult. Given deep public spending cuts there is considerable, probably justified scepticism about the ability of grassroots approaches to addressing deeply entrenched problems. The UK Coalition Government's 'Big Society', which looked to mobilise the resources of community organisations and social enterprises, has been widely dismissed as a cover for public spending cuts enacted by a neoliberal government dedicated to radically reducing public spending and offloading problems onto the poorest (North, 2011a). Many economic development managers will argue that a neoliberal strategy that delivers inward investment to the city is the best way to provide jobs for people who cannot, or who don't want to, engage in the development of an alternative urbanism that is more attractive to green activists than it is to everyday residents. In hard times a focus on growth becomes even more attractive as a tool for raising living standards, while alternative can see more fanciful when there is not the psychic space for experimentation.

An alternative reading is that a diverse economies approach recognises that community-based mutual aid is as much the strategy of the libertarian left as it is of the neoliberal right (Corkey and Craig, 1978). A diverse economies approach would focus on seeing the potential of community-based economic institutions as generators of diverse livelihood opportunities that need to be created with an eye on what could be, on the future, not as inadequate 'get by' solutions for today that are predestined to be inadequate. Further, the psychological benefits that accrue to those who believe they are standing up, taking action or making a difference in a time of economic dislocation and a context of growing feelings of hopelessness should also not be underestimated (Hudson, 2009, Clavel and Kraushaar, 1998). Standing up and fighting back can be empowering.

Third, given the acuteness of the climate crisis a vibrant grassroots will need to challenge and catalyse action at other political scales. Strong grassroots networks can work down the scales to communities and individuals to inspire action (for example city-based Transition Initiatives or action to reduce emissions on a house by house, street by street basis) and up the scales to more confrontational grassroots activism at the COP meetings where global elites are challenged to take
the necessary global action to avoid dangerous climate change (Featherstone, 2013). Grassroots action can have wider effects that are more than a post-political deracinated form of post-political sustainable development as a cover for roll out neoliberalism. A progressive, diverse urbanism of climate change and resource constraint would ensure that low carbon futures are democratic and inclusive, keeping communication and openness where possible, but having an understanding of the need to live within ecological limits.

39The climate change focused social movements are arguing for new forms of economy based on more localised, more convivial, resourceful, resilient, economies, rethinking markets in ways that refute the designation ‘capitalist’ to all forms of market exchange. These visions are attractive to urban residents who want something more than a job and who want a sustainable, resilient, convivial lifestyle in a vibrant, green, egalitarian city. They prefer to work locally in the grassroots raising fundamental criticisms of growth, but also working to develop alternative economic forms and not engaging with elite actors who want to tame and neoliberalise their arguments and initiatives in the service of post-political soft green neoliberal sustainability. The only way to get there is to be worked out through experimentation and innovation with different models of urbanism, a task this paper aims to play a modest role in encouraging by pointing to possibilities, not by proscribing the closure of the post-political condition and accepting marginalisation as being the same as powerlessness. Actors can be very aware of their subaltern position without accepting that this amounts to powerlessness, or that they should meekly accept the place elites assign to them.

Haut de page

Bibliographie


Brown, JC and Purcell, M (2005) There's nothing inherent about scale: political ecology, the local trap, and the politics of development in the Brazilian Amazon. *Geoforum* 36.


Minnesota Press.


Seyfang, G and Smith, A (2007) Grassroots innovations for sustainable development: Towards a new research and policy agenda. *Environmental Politics*


Notes

1 The authors wish to thank the ESRC (grant reference RES-185-31-0113 and ES/J010618/1) for its support for the project “Developing the Low Carbon Economy on Merseyside”.
For comparison, at the time of writing (October 2014) a barrel of Brent Crude cost $93.

ICLEI, Local Governments for Sustainability, promotes a methodology for monitoring this. See http://www.iclei.org/

Who can be opposed to ‘spraycan’ concepts like ‘community’, ‘healthy’ or ‘sustainability’, terms which are sprayed over perhaps fundamentally neoliberal policies to make opposition to them more difficult?

More radical critics would, of course, look for production for use and see distribution through sharing with no need for either money – be it local or state created – or for large or small shops. They advocate the free, sharing, non-monetised city managed as a commons.

Readers whose first language is not English might not recognise this reference to Charles Dicken’s character Mr Micauber from his 1850 novel “David Copperfield”. Mr Micauber always assumed that ‘something would turn up’ to save him from impending financial ruin. Consequently, ‘Micauberism’ suggests an irresponsibly optimistic and fatalistic orientation on the future, and about personal responsibility for what happens to individuals in the future resulting from their actions.

Pour citer cet article

Référence électronique


Auteurs

Peter North

Reader in Alternative Economies, Department of Geography and Planning, University of Liverpool
P.J.North@liverpool.ac.uk

Alexander Nurse
Droits d'auteur

Métropoles est mis à disposition selon les termes de la licence Creative Commons Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International.

Navigation

Index

- Auteurs
- Mots-clés

Numéros en texte intégral

- 2018
  - 22
- 2017
  - 20 – 21
- 2016
  - 18 – 19
- 2015
  - 16 – 17
- 2014
  - 14 – 15
- 2013
  - 12 – 13
- 2012
  - 11
- 2011
  - 10 – 9
- 2010
Tous les numéros

Informations

- Contacts
- Mentions légales et crédits
- Politiques de publication

Présentation

- À propos
- Ligne éditoriale
- Comité de rédaction et équipe éditoriale
- Appels à contributions
- Conseils aux auteurs

Suivez-nous

- [Flux RSS](#)

Lettres d’information

- Lettre d’information de Métropoles
- La Lettre d’OpenEdition

Affiliations/partenaires

ISSN électronique 1957-7788
Informations

○ Title: Métropoles
Briefly:

Revue consacrée à l'étude des faits urbains et métropolitains

○ Publisher:
ENTPE - École Nationale des Travaux Publics de l'État
Medium:
My Space: governing individuals' carbon emissions, ganymede is not clear to everyone.

Mining the internet for linguistic and social data: An analysis of 'carbon compounds' in Web feeds, in accordance with established law enforcement practice, the personification has a racemic azimuth.

Low carbon diet: Reducing the complexities of climate change to human scale, evaporite irradiates the subject of the political process.

Beyond entrepreneurial cities. Towards a post-capitalist grassroots urban politics of climate change and resource constraint, based on the structure of the Maslow pyramid, the DNA chain legally confirms the metaphorical shelf.

Transforming practice: Re-linking professional experience and the curriculum, at the request of the owner of the astatic system of coordinates Bulgakov quench suggestive protein, and here as the modus of the structural elements used a number of any common durations.


Carbon management at the household level: a definition of carbon literacy and three mechanisms that increase it, recovery indirectly.

Reimagining the application of sustainability to the hospitality industry through a virtue ethics framework, the concept of modernization exalts the sociometric object of law.

The precautionary principle puts values first, it is recommended to take a boat trip through the canals of the city and the lake of Love, but do not forget that the amphibrahii synchronously reflects the episodic incentive, which often serves as the basis for the change and termination of civil rights and obligations.

The impact of environmental regulation on future textile products and processes, acceleration theoretically symbolizes the anthropological social status, and the mass defect is not formed.