Original Article

An inspector calls: Looking at retail development through a sustainability lens

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'An Inspector Calls' by JB Priestley captures the spirit of this article. In his play, the inter-connections between the main characters and the life and misfortunes of a suicide victim are slowly revealed. In much the same way, the sustainability lens reveals hidden connections between the actors, forces and processes of the retail development process. I am grateful to my son, Alex Doak, for drawing my attention to this literary link.

ABSTRACT The discourse of sustainable development, although inherently contested, has created a new type of lens with which to analyse the retail development process. It places emphasis on holistic thinking, the study of resource flows, long-term implications and impacts and stakeholder engagement. However, the sustainability lens needs to be conjoined with recent socio-cultural and network perspectives which seek to understand real estate development processes as a combination of economic, social, political and physical processes and phenomena which are constantly adapting to each other and to their wider environment. This leads to a form of analysis that transcends traditional boundaries and examines the systemic properties of retailing and their implications for environmental change and more sustainable forms of development. Holistic thinking of this kind is required to both understand and influence the dynamic processes which characterise retail development.

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INTRODUCTION: THE EYE OF THE CLIMATE CHANGE TIGER

The rise of the sustainability discourse has introduced a different way of looking at the world. Although inevitably clouded in ambiguity and conflict (Redclift, 1987; Centre for Sustainable Development and Strathclyde Law School, 2006), the concept of sustainable development

Figure 1: Climate change – Global processes and effects.
Source: UNEP (2009).

contains a set of new priorities and principles which challenge established ways of conceptualising the world and the human and physical processes that shape it. One of the key things it has done is to emphasise that human activities and environment processes are closely inter-related (WCED, 1987; UNCED, 1992; Stern, 2006; UNEP, 2009). The most potent, but still contested (Singer, 2006), example of this is the current surge of concern about climate change and its implications for global (human) well-being. This has emphasised the complex inter-relationships between human, atmospheric and environmental ‘sub-systems’ and the existence of feedback loops that appear to be taking the planet into a dangerous state of environmental, economic and political crisis (see Figure 1).

Climate change has transmogrified the sustainability discourse into a more focused set of challenges, possibly ‘helped’ by the very visible outcomes portrayed in the media (for example floods, bush fires and other environmental disasters). Government policy (across the globe) is now being partly driven by the climate change agenda and business and other interests are falling into line to discuss and respond to the threats it poses. It is not surprising then that the retail and real estate sectors have been getting to grips with the implications of the changing environment, and one of the first things that confront these businesses is the important role that retailing and property have in contributing to the *causes* of climate change. Goodman and colleagues point out that the retail sector:

... employs 2.9 million people and generates almost 6 per cent of the GDP of the UK. It is responsible for approximately 2.5 per cent of the UK’s carbon dioxide emissions and has a disproportionate influence over society

SHARE OF THE BUILT ENVIRONMENT IN RESOURCE USE

SHARE OF THE BUILT ENVIRONMENT IN POLLUTION EMISSION

Figure 2: Role of the built environment in resource use and pollution emission.
Source: UNEP (2006).

Table 1: Energy consumption by non-residential sub-sectors in Europe

Sub-sector	% of total area	% of total consumption
Retail	24	23
Office	18	21
Sport facilities	4	7
Education	20	13
Health care	11	13
Hotel restaurants	6	9
Residential community buildings	14	10
Transportation buildings	3	4

Source: UNEP (2006).

and the economy through its marketing, regular customer transactions and complex, globalised supply chains. (Goodman *et al*, 2007, p. 8)

When this is combined with the property dimensions of retail development the extent of its environmental impact can be more clearly assessed.

Figure 2 illustrates the important role of the built environment in the consumption of natural resources, particularly energy, while Table 1 shows the contribution of the retail sector in that in a European context.

So given this important environmental, policy and business context, how does the sustainability lens reshape our understanding of retail development? What are the components of the analysis?

THE COMPONENTS OF ANALYSIS

There are a number of components that go to make-up sustainable development and a continuum of perspectives that are embedded within them. However, four important ones for the task at hand concern the emphasis that sustainability thinking places upon: holistic inter-relationships; resource flows; long-term impacts and stakeholder participation.

Holism and systemic inter-relations introduces us to a systems view of the world in which many (all?) actors and things are inter-connected. The relationships illustrated in Figure 1 are complex, non-linear and pervasive. The actions in one part of our (global) system can have implications and impacts in other parts. Systemic thinking and analysis helps us to move between simple didactic causal relations ($A + B = C$) towards a more sophisticated (but less easily measured) understanding of multi-causal impacts and effects. These inter-relationships are formed and structured through networks so that these relations are held together (or fall apart) using a reciprocal glue of aligned interests, social ties and physical technologies. Actors build these networks and seek to further their objectives through them, but they are also affected (supported, challenged or undermined) by other networks and by the feedback loops that constantly operate within and between these networks.

Taking an example from the retail development process, we can see these systemic inter-relationships both creating and destroying the 'out-of-town' movement that occurred during the 1970–2000 period. A combination of motives and strategic moves from retailers, landowners, politicians, consumers, developers and even planners channelled energy into a new 'out-of-town' policy network which grew in intensity through the later quarter of the twentieth century. This led to the creation of a physical built form (out of town retailing) that had a number of environmental, economic and social impacts. These impacts fed back into the 'system' and conjoined with other emergent concerns (like climate change) creating a counter network, which became institutionalised into the new 'sequential approach' policy regime that currently dominates retail location policy and practice.

The second component, of *resource flows and impacts*, refers to the 'energy' that drives the system alluded to above. From a sustainability perspective, the key resources drawn into the retail development process are 'environmental'. These cover the energy and raw materials that are used to construct the retail environment and those used to create the goods that are produced, traded and consumed. Tipping their hat to the systems view, academics have begun to map-out and measure these resource flows. For instance, research at Imperial College has sought:

to provide a methodology for representing the material and energy flows which govern the sustainability of cities, and thus allow systematic assessment of the contributions of specific technologies and strategies to enhanced sustainability. The novelty of the project and the method adopted lies in the capture of the interactions between several of the principal systems on which sustainability depends – materials, energy, air, water and transport. (Leach *et al.*, 1997, pp. 705–706)

Such research follows the pathway of these resources through the production process and considers their environmental 'outputs' in terms of waste and pollution. This kind of framework has been used in relation to food chains (Green and Foster, 2005; Penker, 2006), which clearly shows the important role that retailers play in the process of resource exploitation and use. This kind of model also underpins the Government's

Figure 3: A networked perspective on the retail development process.

policy stance on sustainable production and consumption (DEFRA, 2003; Geels *et al.*, 2008).

Taking on-board this component reshapes the standard ‘development system’ model of the retail development process. The mix of actors (developer, investor, planner and so on) and stages (investment, site finding, appraisal, land assembly and so on) that characterise our understanding of development are complimented by flows of energy, materials, biomass, water and so on that start and end *outside* of the real estate development envelope. This helps to place retail property development into its wider environmental context and asks questions about the decisions that are made about resource use throughout the development process and beyond. Figure 3 illustrates this kind of network process involved in retail development, in which actors draw and impact upon various resources or ‘capitals’ (see Doak and Parker, 2002), including the ‘environmental capital’ alluded to above.

Following through the extension of the time-line mentioned above, the component of *futurity and long-termism* is clearly related to the Brundtland interpretation of sustainable development, which defined it as, ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (WCED, 1987, p. 5). Futurity not only consolidates the systemic view of resource flows and impacts, but also forces us to consider the life cycle implications (‘to the grave’) of decisions made today and encourages a precautionary

approach during that decision-making process. The principle could be said to now shape the planning policy regime, with its requirements that retail development should be delivered according to 'local need' and the sequential test, although the presumption in favour of development and commitment to continued economic growth/development regularly challenges that principle.

Participation and engagement arose through the political processes surrounding the 1992 Earth Summit, in which global NGOs managed to insert a significant emphasis on equity issues and the requirement for sustainable development to be a participative process. The subsequent commitment to subsidiarity in decision making and the Local Agenda 21 process helped make participation and stakeholder engagement a standard principle in sustainable development practice. Indeed, it is something that regularly gets mentioned in retail and real estate industry statements in this area (Goodman *et al*, 2007; Walker, 2007) and means that the range of actors that populate our retail development system now expect to be involved in a range of decisions that affect them through the inter-relations, flows and impacts that arise in the process.

Putting these components together constitutes a more holistic and challenging environment for the retail and real estate industries. Trying to do business and make profits in this new regime, with the lights of sustainability being shone into the crevices of their activities, is not as straightforward as it was in the past. However, as we suggested earlier, part of the cause of this current situation clearly rests with past decisions by these industries in this area!

NOT FORGETTING THE IMPORTANT STUFF: STRUCTURE, AGENCY AND POWER RELATIONSHIPS

The sustainability lens, however, is in danger of impotency unless it takes account and incorporates a clear conception of the constraints, opportunities and dynamics of real estate development processes. The components of sustainability provide *part* of this understanding (focusing on the systemic resource flows and environmental impacts involved) and *begins* to acknowledge the role of different interests in shaping the system (through its emphasis on stakeholder participation), but it also requires a framework that encompasses the economic and social drivers behind/within the process and a more developed view of the power relationships involved. This takes us towards some recent theorisations of real estate development that explicitly cover these aspects.

Guy and Henneberry (2000) have argued for an approach to real estate development that blends the economic and cultural dimensions of the processes involved. They state that such an approach should be, 'deeply contextual and contingent both on the particular aims and objectives of development actors, and on a shifting market framework which may enable or constrain development strategies' (ibid, p. 2413). This conjoining of the 'agency' of actors and the 'structural' constraints under which they act provides us with a lens-holder we can use to contextualise the sustainability components covered above. Drawing upon the work of Guy and Henneberry and others before them, the

author has sought to explore the actor networks involved in brownfield redevelopment (Doak and Karadimitriou, 2007a). The systemic inter-relationships involved in the retail development process are similar to those uncovered in that research. Such an approach emphasises the role of actors in socially constructing (negotiating) the 'system' within which they operate, which then recursively 'structures' their actions. It does not prioritise human actors (retailers, developers, planners and so on) over non-human 'actants' (such as pollution, flooding and climate change), although it does acknowledge that actors will deploy a range of resources to further their objectives i.e. power also 'flows' through the system.

Figure 4 illustrates in broad terms the combination of actors, structural constraints (or drivers) and network processes that surround retail development. Given the holistic approach mentioned earlier, all these aspects are recursively linked, constantly influencing each other in complex non-linear ways as the process unfolds (through processes of network building, as outlined in Figure 3).

Figure 4: A conceptual model of the retail development process.

Source: Doak and Karadimitriou (2007b).

THE RISE OF A SUSTAINABLE RETAIL DEVELOPMENT NETWORK?

Applying this kind of framework to the process(s) of retail real estate development starts to unwrap a number of inter-connections that could be drawn together to help construct an emergent 'sustainable retail development' network.

Taking-up the spatial aspects of retail development, and building on the previous comments, it is clear that locational outcomes involve a combination of human and non-human elements. Retail development involves the coming together of different actors (developers, retailers, investors, planners, landowners, consumers and so on) who draw upon a range of human and physical resources (labour, land, money, energy, corporate strategies, governmental policies, building materials, spatial plans, cars, buses and so on). The actors are 'driven' by a range of objectives and 'structural' imperatives which feed into and shape the process through negotiation, adjustment and exclusion/domination. The subsequent built environments (for example out of town, suburban, edge of centre, town centre, virtual) have economic, social, cultural and environmental implications and impacts which feedback into the 'system' and lead to further development in those directions or in other directions, depending on actor reactions and adjustments.

One of the implications for 'sustainable retail development' is the possibility that a new development network is being formed, which could produce retail environments that are more efficient in their consumption of 'environmental capital'. This could be mobilised through the combination of niche elements that have arisen in recent years. Although the 'out of town' retail network has significant spatial inertia (because of the sunk costs of the 1970–1990 'store wars' era, see Chapter 2 of Wrigley and Lowe, 2002), the 'structural constraint' of the sequential policy approach has switched retail capital back towards more central urban locations. The energy implications of this switch are significant, as can be the social impacts when linked proactively to neighbourhood regeneration initiatives (Carley *et al.*, 2001; DTZ, 2008). This is now being conjoined with moves both by government and the real estate industry to improve the energy and resource efficiency of commercial and residential property (CLG, 2008a, b), which seeks to reduce carbon emissions from new buildings to zero by 2020. As corporate strategies seek to take this agenda forward, new approaches are developed, such as the emergent strategy of major investors like PRUPIM to improve their existing stock to bring it in line with best practice in new development (PRUPIM, 2008).

The networked approach outlined above suggests that the orchestration of further linkages could support this 'development niche' in line with the components of sustainable development. Corporate social responsibility pressures are arising from a similar mix of governmental, NGO and business actors and are being built or strengthened by businesses working in investment, real estate and retailing sectors (Pivo and McNamara, 2005; Jones and Comfort, 2005). Through the processes of positive/negative screening and proactive environmental management this can 'structure' decision making and resource flows more in line with the

principles of sustainability. Applying this to the network relations shown in Figure 3, construction and retail firms can facilitate further resource efficiency measures in the supply chains that feed their business. As suggested by Bansal and Kilbourne (2001, p. 143), 'although retailers are not often designated as major polluters, they are recognised as having the power to induce change among manufacturers because they are a critical link in the supply chain'.

These 'positive' dynamics towards sustainability are not the only ones to populate these networks. There are just as many (if not more) forces and actor objectives leading the network in other directions (see, for instance, the critical analysis provided by Wrigley and Lowe, 2002; Seyfang, 2004; and Guy, 2007). Indeed, the very nature of complex adaptive networks is that they cannot be 'engineered' into a particular shape. Spillovers, feedback loops and unintended consequences are perennial features of 'interventions' in such processes. However, given that these networks are socially constructed, it does mean that what actors do, how they think and what they construct are all important in influencing their trajectories and outcomes. Furthermore, these also need to be viewed as a set of *inter-related* processes and actions. What one actor does to address or adapt to environmental change has implications for the other actors in the process (and beyond).

It follows from this that there are a number of roles that need to be attuned to collectively move the retail development network towards sustainability. *Governmental policy* needs to maintain and strengthen planning and environmental policies so that they help 'structure' the thinking and actions of other network actors in resource efficient ways. Challenging targets need to be maintained and improved upon and the negative feedbacks and spillovers need to be 'predicted' and dealt with through policy development or review. *Industry initiatives* need to be developed, extended and spread using economic as well as ethical arguments. Sustainability criteria should feature more in business contracts (see, for instance, the use of green leases as explored by Sayce *et al* in this issue) and supply side relationships need to be actively managed (BRC, 2005; Jones and Comfort, 2005; Walker, 2007). For instance,

The ecologically sustainable retailer would espouse the following principles: process intensification through closed-loop systems; locally responsive globally coordinated organisational structures; (and) loosely coupled inter-organisational networks based on resource flows. (Bansal and Kilbourne, 2001, p. 145)

Meanwhile, *citizen and consumer actions* would need to maintain the pressure on other actors through traditional political activities like voting, lobbying and direct action. Also by using the market mechanism of consumer demand to structure industry supply and operate alternative forms of provision (such as local economic trading systems and farmers' markets) to challenge the main business actors.

It is through such dissipative actions that sustainability messages can be communicated through and embedded into the workings and discourses of these networked processes. Using such a lens to analyse

the human and physical processes involved in the processes of retail development can also help actors to strategically intervene in those processes in order to reshape the 'system' more towards the principles of sustainability.

REFERENCES

- Bansal, P. and Kilbourne, W.E. (2001) The ecologically sustainable retailer. *Journal of Retailing and Consumer Services* 8: 139–146.
- British Retail Consortium. (2005) *Towards Retail Sustainability: Protecting Our Environment for the Future*. London: BRC.
- Carley, M., Kirk, K. and McIntosh, S. (2001) *Retailing, Sustainability and Neighbourhood Regeneration*. York, UK: Joseph Rowntree Foundation.
- Centre for Sustainable Development and Strathclyde Law School. (2006) *Sustainable Development: A Review of International Literature*. Edinbrough, UK: The Scottish Executive.
- Communities and Local Government. (2008a) *The Code for Sustainable Homes: Setting the Standard in Sustainability for New Homes*. London: CLG.
- Communities and Local Government. (2008b) *Requirements for Energy Performance Certificates (EPCs) When Marketing Commercial (Non-domestic) Properties for Sale or Let*. London: CLG.
- DEFRA. (2003) *Changing Patterns: UK Government Framework for Sustainable Consumption and Production*. London: DEFRA.
- Doak, J. and Parker, G. (2002) 'Pre-Plan Mapping', Networks, Capital Resources and Community Strategies in England. Reading: School of Real Estate & Planning, University of Reading. Working Papers in Land Management and Development 11/02.
- Doak, J. and Karadimitriou, N. (2007a) (Re)development, complexity and networks: A framework for research. *Urban Studies* 44(2): 209–229.
- Doak, J. and Karadimitriou, N. (2007b) Actor networks: The brownfield merry go round. In: T. Dixon, D. Lerner and R. Raco (eds.) *From Problem Spaces to Liveable Places: An Integrated Approach to Sustainable Brownfield Regeneration*. Oxford, Blackwells.
- DTZ. (2008) Retail-led Regeneration: Why it Matters to Our Communities. Report for Business in the Community and British Council for Shopping Centres, London: DTZ.
- Geels, F.W., Monaghan, A., Eames, M. and Steward, F. (2008) *The feasibility of systems thinking in sustainable consumption and production policy: A report to the Department for Environment, Food and Rural Affairs*. London: Brunel University, DEFRA.
- Goodman, J., Berry, T., Knowles, H. and Miller, P. (2007) *Retail Futures: Scenarios for the Future of UK Retail and Sustainable Development*. London: Forum for the Future.
- Green, K. and Foster, C. (2005) Give peas a chance: Transformations in food consumption and production systems. *Technological Forecasting and Social Change* 72: 663–679.
- Guy, C. (2007) *Planning for Retail Development: A Critical View of the British Experience*. London: Routledge.
- Guy, S. and Henneberry, J. (2000) Understanding urban development processes: Integrating the economic and the social in property research. *Urban Studies* 37(13): 2399–2416.
- Jones, P. and Comfort, D. (2005) Retailers and sustainable development in the UK. *International Journal of Retail and Distribution Management* 33(3): 207–214.
- Leach, M.A., Bauen, A. and Lucas, N.J.D. (1997) A systems approach to materials flow in sustainable cities: A case study of paper. *Journal of Environmental Planning and Management* 40(6): 705–723.
- Penker, M. (2006) Mapping and measuring the ecological embeddedness of food supply chains. *Geoforum* 37: 368–379.
- Pivo, G. and McNamara, P. (2005) Responsible property investing. *International Real Estate Review* 8(1): 128–143.
- PRUPIM. (2008) *Sustainability: PRUPIM Sustainability Report 2008 – Executive Summary*. London: PRUPIM.
- Redclift, M. (1987) *Sustainable Development: Exploring the Contradictions*. London: Methuen.
- Seyfang, G. (2004) Consuming values and contested cultures: A critical analysis of the UK strategy for sustainable consumption and production. *Review of Social Economy* 62(3): 323–338.
- Singer, S.F. (2006) The 'climate change' debate. *World Economics* 7(3): 1–4.
- Stern, N. (2006) *The Economics of Climate Change: The Stern Review*. London: HM Treasury.
- United Nations Conference on Environment and Development (UNCED). (1992) *Agenda 21*. New York: UNCED.
- UNEP. (2006) *Sustainable Buildings and Construction Initiative: Information Note*. Nairobi, Kenya: UNEP.

- UNEP. (2009) *Kick the Habit: A UN Guide to Climate Neutrality*. Nairobi, Kenya: UNEP, <http://maps.grida.no/go/graphic/climate-change-global-processes-and-effects1>.
- Walker, D. (2007) Sustainability: Environmental management, transparency and competitive advantage. *Journal of Retail and Leisure Property* 7(2): 119–130.
- World Commission on Environment and Development (WCED). (1987) *Our Common Future*. London: Oxford University Press.
- Wrigley, N. and Lowe, M. (2002) *Reading Retail: A Geographical Perspective on Retailing and Consumption Spaces*. London: Arnold.