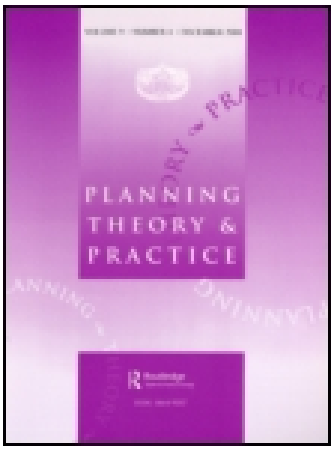

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COMMENT

The challenges of the "material turn" for planning studies

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De Roo, Hillier, and Van Wezemael (2012) have shown how the late-twentieth-century dominance of planning theory by governance approaches, including the influential collaborative planning theory (Healey, 1987, 2006), is now being challenged by new ideas. They particularly point to the contribution that complexity thinking is offering, although as Hillier points out, "There is no such thing as a complexity theory; rather a range of complexity theories" (Hillier, 2012, p. 62). Within this range there has emerged an influential set of works associated with the relational philosophy of Deleuze and Guattari (see Purcell, 2013, for a review), the unsettling of modernist claims to scientific and technological expertise by Latour (1993, 1999, 2005) and the development of an assemblage framework for understanding social action by DeLanda (2006; Farias & Bender, 2009). This perspective can be summarised as arising from the twin poles of an emphasis on the relationships between entities – such as the state, planners, the plan – rather than the entities themselves and also with the (re)emergence of a realist ontology. Collaborative planning and governance approaches have for some time been moving in a relational direction (as in the works of Healey, 1987, 2006); but the implications of a realist sensibility, of a "material turn" – decades after the "cultural" or "discursive turn" put language, communicative action and social construction at the heart of social theorising – have yet to be fully appreciated. The challenges that this "material turn" raises for planning studies are the subject of this brief Comment article. It focuses particularly on the Deleuzian-inspired assemblage framework of DeLanda and Latour's actor-network theory. While there are key differences between these authors, they share both a relational perspective and a concern with materiality. This Comment looks first at the idea of outcomes being emergent from heterogeneous relationships. It then discusses the symmetry of material and social elements within such analyses and what this means for the notion of agency. Finally, it considers the idea of a flat ontology and how this changes the way that scale is addressed.

Emergent outcomes from associations of heterogeneous elements

A good starting point for appreciating this mode of analysis is the central focus on associations of heterogeneous elements, variously imagined as networks, rhizomes and assemblages. Whatever the terminology, in each case the aim is to establish how different elements come together through connections and how these connections are stabilised, albeit always temporarily. In Latour's language, stabilising the connections requires actors to be "enrolled" into networks. The work involved in bringing networks into being and rendering them (temporarily) stable builds up from very small actions (Latour, 2005, p. 15), what Farias terms "myriads of small, lateral and almost peripheral changes, petty movement and subtle displacements" (Farias, 2009, p. 1).

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Latour puts a particular emphasis on intermediaries or (to use a more active term) mediators to achieve this enrolment, in a process that he calls "translation" – bringing actors into association with each other to effect change. Translation does not directly cause effects but rather induces mediators into coexisting with consequent effects. Mediators of all kinds transform, distort and modify the meanings and other elements that they are "carrying" and thereby help shape networks. Using the assemblage language, DeLanda (2006) explores this by distinguishing the properties of constituent parts – which may form a closed list – from their capacities to interact with other entities – which are not given but open. This means that assemblages are defined by relations of exteriority rather than interiority; it is the relationships between elements that are important, not the aggregation of the properties of the elements. The properties of the parts can never explain the whole, which is rather the result of the actual exercise of capacities and implies a co-evolutionary history of the parts and the whole (DeLanda, 2006, p. 10).

The result of these associations and connections within assemblages, therefore, is to produce outcomes that are emergent from the relationships rather than the result of the agency of any specific actor or set of actors. Agency is seen rather as distributed through the collectivity, each element requiring the involvement of the other elements to have an effect. Agency is an emergent capacity of the assemblages, of the changing networks. This distributed agency has profound consequences for how power can be understood. It arises from collective connections rather than being associated with individual actors and their actions.

At first glance this account creates few difficulties for those interested in the understanding of planning processes. Governance studies of planning have repeatedly shown how a wide range of different actors are implicated in urban change and network studies (both formal and less formal: see Rydin, 2013, for a review) and have identified sets of connections and the work involved in maintaining them. If heterogeneity is understood as encompassing stakeholders across many different domains – e.g. transport, housing, pollution, biodiversity, employment – then attention to connections between such diverse elements is bread-and-butter to planners and speaks to its essentially synthesising nature. And it is then tempting to see planners as playing a key role in creating networks and shaping connections to some given end.

However, this would overstate the role of planners. Assemblages, networks and other forms of associations are not created by planners. Rather, planners are just one kind of actor within those associations. The planner may play an enrolling role at times but s/he is usually far from being the most important actor in an urban assemblage or network. S/he may be an enabler, a fixer, a generator of linkages which may or may not prove to be significant. Planners are not so much intervening as drawn into associations which are then the cause of change. In this view planning becomes part of a process of "sociomaterial and sociotechnical ensemble" (Farias, 2009, p. 14).

The work of planning practice is thus about working with heterogeneous elements in a variety of small ways to induce mediators into coexisting or stabilising assemblages (for the time being) so that resultant change can be generated but with little certainty as to what that change will be. This is in line with the view of urban areas as complex systems where unintended consequences and emergent properties dominate over the achievement of intentional (planned) aims. It connects with Gerrits and Teisman's co-evolutionary approach: "planning successes are chiefly dependent on the ability to synchronise planning activities with the development of self-organizing planning objects" (2012, p. 200). Thus the first challenge is to the idea of planning as a powerful activity, suggesting instead a much more nuanced and distributed set of activities where ambitions are much more likely to be met where they broadly align with the direction of change emerging from the existing relationships or are commensurate with the impacts of marginal shifts and pressures.

Agency and the symmetry of material and social actants

Perhaps the most contentious claim that proponents of the "material turn" make is that social and material actors have to be treated on a par, invoking a radical symmetry between them. The argument here is that the networks or assemblages of associations involve material and social elements and both are implicated in the distributed agency of the collectivity. This has been interpreted as meaning that material actants exercise agency in the same way that social actors do. For some it is nevertheless difficult to align agency with the non-social in this way (Boelens, 2010).

If agency is seen as involving intention, purpose and decision-making, then such agency must be restricted to social actors. A material element – a district heating technology, an insulation panel, a reed bed, a tram line – cannot have an intention or a purpose or make a decision. DeLanda emphasises that social actors alone exhibit such motives, intentions and value-driven behaviour (2006). Thus planning as an activity undertaken by planners in line with an intention or purpose is not denied by this approach. However, attempting purposeful action is not the same thing as exercising agency. Social actors alone undertake the former, but (as discussed above) agency as distributed throughout an assemblage or network and potentially involves any connections and connected elements, material or social. This means that the connections involving material actants exercise agency in the same way as those involving just social actors. This can be difficult to assimilate for those accustomed to seeing planning as purposeful decision-making achieving certain ends. However, a focus on the material does offer new topics for study, looking at how planning actors are brought into association with material elements. There are (at least) four different possibilities to consider here.

First, and this is rarely considered, planners operate in a material world during their daily practice. This may relate to their office space and how it is structured (open plan or cellular offices), or how they get about the locality that they are seeking to plan (by car, public transport, bicycle or on foot). It also affects their involvement with people outside the planning office, where public participation and stakeholder engagement is shaped by the materiality of the encounters and the technologies and material artefacts that are used in these encounters.

Second, there is the issue of how planners encounter the materiality of the environments that they are seeking to influence. Much of this contact is in a mediated form through the means of data, regulatory forms, maps and building plans. Planners then use these to generate further artefacts: survey reports, land use plans, zoning ordinances, development permissions. Thus planning has a highly mediated and somewhat divorced relationship with the materiality of the environment and is involved in transforming this further through the means of artefacts that it creates.

Third, these artefacts are themselves important material entities. They can take a variety of forms but it is suggested that embodying mechanisms of calculation in an artefact is often significant, particularly when the process of calculation is "hidden" in so-called black boxes (Callon & Muniesa, 2005). The focus on calculative artefacts can be highly productive for planning research, looking at environmental impact statements, traffic and population forecasts, cost–benefit analyses, landscape assessments, urban design statements, accessibility assessments, and so on. And the nature of associations mediated by calculative artefacts may vary with different kinds of planning practice – formulating the plan, regulating the development proposal, promoting the urban regeneration scheme – suggesting a rich terrain for research.

Fourth, this can be an opportunity for re-engaging with the environmental dimensions of planning practice, the importance of the materiality of the specific sites for urban development, the ecological systems of regional water courses and green infrastructure, urban climatology, for example. This is not a call for a return to environmental determinism or even the inclusion of environmental geography within planning education. The material is not the environmental context for planning; rather, reality is always socio-material in its constitution. But the "material turn" does

offer the opportunity to remember that planning practices seek to engage with that socio-materiality and this involves detailed attention to material aspects of sites, ecosystems and environmental systems.

Scale and a flat ontology

The third challenge arises from the specific ontology of this perspective, a flat ontology. Here causation does not flow from one level to another, from the general to the more specific, from the higher scale to the lower, following a hierarchy in which more structural dimensions set the context, and thus constrain, possibilities at a more detailed level. Rather, causal influences are seen to arise from all levels at the same time and to impact mutually.

The flat ontology has implications, sometimes controversial implications for the notion of scale (Marston, Jones, & Woodward, 2005; Collinge, 2006). The networked relationships of any specific situation are, in this view, simultaneously constituted as local, regional, national and global. It sees all scales as immanent in any situation, with networks, rhizomes, entanglements or assemblages extending from the local to the global and vice versa and in between and back and forth again. The reality of macro structures such as nested scales is acknowledged but shown to be sustained through networks of heterogeneous associations; scale is co-constructed through associations in long chains (Collinge, 2006). Hommels (2005) has criticised the "embeddedness" approach (which is akin to the perspective discussed here) for being excessively local, but this is because of a failure to appreciate these longer chains of association implied by a flat ontology.

This has implications for the idea of a plan or indeed any strategic statement which is intended to cover a certain scale and influence specific developments at more local sites. In planning practice and theorising, the plan or strategy often retains iconic status. Portugali (2012, p. 135) refers to strategic planning as "the locomotive that carries the planning process." Yet, as Wagemaar recognises "the outcome of policy interventions cannot be known in advance as policy effects are themselves emergent properties" (Wagemaar, 2007, p. 41); so what can a plan or planning strategy do?

Hillier's work provides an interesting example of how to situate the plan within this new approach. Using a relational approach to develop a "baroque" approach to planning, Hillier refers to spatial planners as both building bridges "between the 'real' and the possible" through their plans (Hillier, 2012, p. 12) and exploring multiple trajectories. She sees "Planning is the art (or science) of spatial manipulation. It is a mediator between multiple representations of the 'good' in the continuing process of space-becoming or spacing" (p. 49). She sets out a view of planning as "becoming" in terms of "unpredictable, indeterminate, never-accomplished actualisation of virtualities" (p. 51).

This is an account of the plan that tries to re-imagine its role in a world of emergent properties. As Hillier concludes: "The most that can be done is to anticipate or map possible becomings" (p. 51) and "The issue for planning becomes to conceive of and plan lines or trajectories rather than a final point" (p. 52), involving key stakeholders in discussing these possibilities. But such discussions need to be on the basis of "noting, however, the inevitably uncertain outcomes of such interventions" (p. 51), a comment which points to the limited efficacy of plan-making, and thereby unintentionally rather de-motivates the involvement of stakeholders in the process of plan-making.

Concluding comment

In very brief terms, this Comment has outlined the key features of the current "material turn" implied by the work of theorists such as DeLanda and Latour. It has suggested that this poses some distinct challenges for planning practice and theorising. First, there is the de-centring of the planner as a key social actor from a central position within governance networks, enabling communication

and collaboration, to a more contingent position within multiple sets of associations, working to achieve purposes by the small work of creating new connections and shaping existing ones without certainty as to the eventual impact. Second, the ascription of agency to relationships involving material elements or actants has, for some, seemed to undermine the distinctively social nature of planning practice and the possibility of imbuing such practice with motives, intentions and values. This is not the case; such features still describe social actors and their actions (what they do). But the understanding of agency (what happens) now has to include a consideration of materiality. This need not be a threat; there is considerable richness in a research agenda suggested by the material turn: the materiality of planning practice, the mediation of the material elements within planning practice, the role of material artefacts, and the re-emergence of the physical site and environment as a focus. Thirdly, the espousal of a flat ontology would seem to refute the significance of scale and of a cascade or nested hierarchy of strategy formulation at these different scales, from national through regional to local. The idea of scales being constructed through multiple long and short associations and outcomes arising from the agentic properties of this cross-scalar mix of relationships does have profound implications for the role of a plan or strategy devised for any particular scale. Such documents become profoundly provisional, a basis for stakeholder engagement, a means of capturing certain knowledge claims and an expression of a temporary vision. Their implementation becomes highly uncertain since agency emerges from the whole assemblage or network, not the "work" of the plan. Will the process benefits of engagement, warranting knowledge and visioning be sufficient to support the hard work of making a plan or strategy? The material turn may be the time for seeing the preparation of such documents more clearly in the context of wider planning practice and emphasising the multitude of other practices – community building, regulation, leveraging funds – that together constitute the myriad of "small work" that planners do.

Such challenges need not be problems. Rather, the material turn has much to offer the study and theorising of planning practice. Any moment of paradigmatic change will encounter resistance and involve misunderstandings. The aim of this short comment is to offer a little clarity for a deeper engagement with the new and exciting literatures that the material turn is producing.

Notes on contributor

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