Sustainable urbanism in the age of Photoshop: images, experiences and the role of learning through inhabiting the international travels of a planning model

ELIZABETH RAPOPORT

Department of Science, Technology Engineering and Public Policy, University College London, Boston House, 2nd Floor, 36–38 Fitzroy Square, London, WC1T 6EY e.rapoport@ucl.ac.uk

Abstract Learning is one of the critical processes in enabling the international mobility of urban planning and policy ideas. A particularly effective form of learning in this context is an immersive, sensory approach we can describe as 'inhabiting'. This article illustrates the role that inhabiting plays in facilitating the mobility of the planning model of sustainable urbanism. To do so, it draws on research carried out in the industry of international private sector architects, planners and engineering consultants, sometimes called the Global Intelligence Corps (GIC). In the article, I illustrate how GICs use inhabiting, drawing on visual media and personal experience to encourage their clients to incorporate sustainable urban planning and design proposals into large urban development projects. These explorations demonstrate the value of research methodologies that focus on the everyday practices and social interactions through which people mobilize ideas.

Keywords SUSTAINABLE URBANISM, ASSEMBLAGE, GLOBAL INTELLIGENCE CORPS, POLICY MOBILITIES

Globetrotting consultants and travelling policy and planning ideas have attracted a great deal of interest in recent years. In urban geography, work on urban policy mobilities has focused on the travels of a diverse collection of policy initiatives, including business improvement districts, drug policies, creative cities, workfare and conditional cash transfers (Lee and Hwang 2012; McCann 2008; McCann and Ward 2010; Peck 2011; Peck and Theodore 2010; Ward 2006). An emerging body of work on the contemporary travels of urban planning ideas has examined the influence of particular places such as

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

Global Networks 15, 3 (2015) 307–324. ISSN 1470–2266. © 2015 The Author(s) *Global Networks* published by Global Networks Partnership and John Wiley & Sons Ltd. 307

Vancouver and Dubai on other regions of the world and travelling approaches such as participatory urban planning (Choplin and Franck 2010; Crot 2010; Lowry and McCann 2011). This adds to a rich historical literature on the travels of planners and planning ideas in the colonial and postcolonial eras (Banerjee 2009; King 1976; King 2004; Nasr and Volait 2003; Peattie 1987; Ward 2005).

A focus on how people debate, contest and adapt ideas as they travel is central to much of this work. This occurs through interactions between actors on either side of the international exchange of ideas – those who seek ideas and expertise from elsewhere, and those people (who are often transnational) who act as the primary mobilizers of policy (McCann 2011). One can roughly define these two groups as the supply and demand sides of the international exchange of ideas, then, is a social practice (McCann 2011; McCann and Ward 2010). Mobilizing policy and planning ideas, then, is a social practice (McCann 2011; McCann and Ward 2010; Peck and Theodore 2010) that involves 'complex processes of translation, interpretation and adaption' (Healey 2010: 5).

Yet, the research methodologies available to scholars make it difficult to observe the nuances of these processes. Retrospective reconstructions of the travels of an idea do not allow a researcher to observe the actual everyday practices and social interactions through which urban policies and planning models move. This, in turn, limits our ability to develop empirically grounded conceptualizations of *how* ideas travel and come to have an impact on transnational building practices. In recognition of these limitations, a number of authors in the field of urban policy and planning mobilities have recently urged researchers to undertake a more anthropological and ethnographic approach to studying this topic (Cochrane and Ward 2012; Jacobs 2012; Larner and Laurie 2010; McCann 2011; McCann and Ward 2010, 2012; Peck and Theodore 2012).

Such an approach requires following ideas as they travel, in real time, and studying the actors and materials involved in these travels. This article draws on an attempt to undertake such an approach, namely a study, carried out in 2011/12 of the international travels of ideas about how to plan and design new sustainable urban areas. The research used sustainable urbanism as a case study of a travelling planning model. In particular, it focused on one group of actors who are playing a growing role in the international mobility of ideas in the planning and built environment industries. This is the elite group of international private sector architects, engineers and planning consultants sometimes referred to as Global Intelligence Corps (GIC) (Olds 2001; Rimmer 1991).

On observing and spending time with the consultants who make up the GIC, one aspect of how they mobilize ideas immediately stood out, namely the way interviewees repeatedly referred to their role as 'educating' their clients. This reinforces something that McFarlane (2011a) observed – learning (and teaching) is at the heart of the international mobilization of ideas. Thus, in line with the need to study everyday practices identified above, in this article I focus on the role of learning in the international travels of ideas. In the commercial context of the GIC's work, learning and teaching are more akin to salesmanship than to a simple presentation of ideas. Supply side actors often have a stake in 'selling' their ideas. Therefore, in this article, I do not examine learning in a general sense. Rather, I focus on the strategies and tactics that consultants use to

encourage their clients to adopt their ideas about sustainable urbanism and on the ways clients respond to these.

The research identified one method that consultants commonly use to introduce and promote ideas – an immersive, sensory approach to learning sometimes referred to as inhabiting. I argue that encouraging inhabiting is an important mechanism for mobilizing ideas and demonstrate how consultants do this through using visual media and experiences. These explorations also shed light on the ways participants express power in the international exchange of planning ideas.

The research underpinning this article included interviews with more than 50 individuals, including members of the GIC from 13 different firms, their clients and other stakeholders with experience in developing sustainable urban areas. It also included participant observation in the work of several GIC firms. Another element of the research consisted of participant observation during a five-day study tour of a sustainable urban project in northern Europe and follow-up interviews with the participants in the study tour. The final element was a content analysis of ten master plans prepared by GIC firms for new urban projects.

The article starts by setting out a conceptualization of sustainable urbanism and the actors who mobilize this planning model, followed by a discussion of the concept of inhabiting and the way power operates as ideas travel. The next two sections illustrate how GIC consultants use inhabiting, specifically by drawing on visual media and experiences. I demonstrate how consultants use inhabiting as a tactic to convince their clients to take up their proposals for incorporating sustainability into their projects. The penultimate section reflects on the power dynamics at play during the process of inhabiting, particularly how one can direct the experience of inhabiting towards particular objectives. In the concluding section, I reflect on the material impact of travelling ideas on transnational building practices and suggest the need for further empirical studies on the everyday processes and practices by which ideas travel.

Sustainable urbanism as a travelling assemblage

In recent years, sustainability has emerged as a driving objective for urban development projects around the world (Joss 2011). This has had the effect of placing sustainable urbanism among the class of travelling ideas described above (Temenos and McCann 2012). Two broad trends in urban planning influence sustainable urbanism's travels. These are the increasing geographical distance between planners and the places they plan, and the growing role of private sector consultants in planning and designing large urban projects. The two trends are linked. Governments and property developers who wish to carry out an urban development project in a sustainable way are increasingly looking internationally and to private sector consultants for the required expertise. As a result, practitioners from private sector architectural, engineering and planning firms are now accustomed to boarding long-haul flights to meet their clients (Faulconbridge 2010; McNeill 2009). This globalization of planning practice has occurred alongside a growing privatization of urban planning and design services in much of the world (Shatkin 2008).

This situation has led to the emergence of a relatively small, highly internationalized group of architectural, planning and engineering firms – the GIC (Olds 2001; Rimmer 1991). Olds (2001: 42) defines the GIC as 'the very small number of elite architectural and planning firms that aspire for prestigious commissions in cities around the world'. The GIC includes architects, engineers and planners, and range from large multi-disciplinary companies like AECOM to smaller 'starchitect' practices such as Foster & Partners. The GIC play an important role in mobilizing ideas internationally, in part because their status gives them a disproportionate influence over large-scale urban development projects in major cities (Ward 2005). Their clients are usually government agencies and property developers looking to develop or redevelop a piece of land. Typically, they will commission their GIC consultants to produce a strategic land-use master plan setting out the objectives for a development.

Sustainable urbanism, as a travelling model in the hands of the GIC, consists of a collection of normative design principles and technologies that aims to increase the sustainability of the built environment. These range from passive design features such as optimizing building orientation, to cutting-edge energy generation technologies and large-scale public transit initiatives. In this looseness, sustainable urbanism differs from more clearly articulated planning models linked to a particular place or established doctrine. Unlike, for example, the 'Barcelona model' or new urbanism (González 2011; Moore 2010, 2013), sustainable urbanism has no original form from which to mutate. Rather, I argue, sustainable urbanism is what Roy (2011) has referred to as a 'model in circulation' composed through transnational references and cross-border borrowing. The model is formed not prior to, but during its travels.

In this article, I conceptualize the urban planning model of sustainable urbanism as a dynamic and heterogeneous assemblage. In doing so, I follow in the footsteps of a number of authors who have recently begun to apply assemblage thinking, in varied ways, to conceptualize the international travels of urban planning and policy ideas (Lagendijk and Boertjes 2013; Prince 2010, 2012). Specifically, I adopt an approach to thinking about urban processes and forms as assemblages that a small group of authors in human geography (Anderson and McFarlane 2011; Anderson et al. 2012; McFarlane 2011b, 2011c) has developed. This approach draws on both the work of Deleuze and Guattari (2004) and actor–network theory (ANT).

These authors adopt DeLanda's (2006) description of assemblages as characterized by relations of exteriority. This means that assemblage thinking 'is attentive to both the individual elements and the agency of the interactive whole, where the agency of both can change over time and through interactions' (McFarlane 2011b: 208). In other words, both an assemblage and the components that make it up have agency, but the way they express their agency can change. Because the component parts of an assemblage are autonomous, assemblages are not organic wholes, the sum of their properties or parts (McFarlane 2011b). Rather, the interactions between components form an assemblage.

The ontology of assemblage thinking has two important characteristics. First, from ANT assemblage thinking adopts a flat ontology, which puts equal emphasis on the roles of social and material actors. Second, assemblage thinking gives the world of potential and capacities the same ontological status as that of existing things. Deleuze and Guattari rejected the idea of transcendence, or 'some absolute universal idea 'outthere' which shapes behaviour' (Hillier 2008: 45) in favour of the idea of immanence, namely that 'forces and objects are imminent to the resources and processes at hand' (Lagendijk and Boertjes 2013: 296).

The assemblage/planning model of sustainable urbanism is comprised of people, including the GIC and their clients. It also includes the work they produce in the form of master plans, images, videos and actually constructed sustainable urban places, as well as the textbooks and good practice case studies that provide normative guidance on sustainable urbanism. The assemblage includes the various design principles and technologies often deployed in sustainable master plans, such as renewable energy generation, low-carbon transit technologies and sustainable urban drainage systems. When the model is applied, or the project actually built, no single example of it will necessarily draw on or incorporate all these elements, or use them in the same way. Each of these elements and the assemblage as a whole has a variety of capacities and potentials.

Conceptually and empirically, this approach to assemblage thinking shifts the focus of enquiry away from cities as 'resulting formations' towards 'emergence and process ... multiple temporalities and possibilities' (McFarlane 2011b: 206). It is possible to do the same for planning models by conceptualizing them as assemblages. As highlighted above, sustainable urbanism does not mutate from an original form as it travels. Rather, the model itself forms as it travels. When people repeat ideas and take them up in new environments, a loose assemblage of thoughts about how to make urban areas more sustainable crystallizes into a planning model.

Inhabiting sustainable urbanism: travelling ideas and learning processes

In interviews, the architects, engineers and planners questioned for this research often described their role as one of educator in that they introduced their clients to new or unfamiliar approaches towards achieving urban sustainability. This does not mean, however, that they are in a position simply to import and impose an off-the-shelf model of sustainable urbanism. Rather, they have to convince their clients of the value and relevance of their ideas for a particular project. To do so, GIC members often employ a multi-sensory approach to learning and teaching, which in his work *Learning the city*, McFarlane (2011a) described as learning through dwelling.

According to McFarlane, learning through dwelling occurs by taking a sensory approach to seeing and perceiving in the world. A 'dwelling' perspective develops when we immerse ourselves in our environment (Ingold 2000; McFarlane 2011a). Thus, dwelling is more than just learning through experience; it is 'how learning is lived' (McFarlane 2011a: 21–2). The meaning of what people learn through dwelling is not externally determined but immanent to their engagements with their environments. Environments are not just physical places. In the case of urban policy, McFarlane argues, these engagements can be with a 'document, environs, discourse or idea' (McFarlane 2011a: 21).

The terms 'dwelling' and 'inhabiting' sometimes appear to be interchangeable.

Ingold (2008), on whose work McFarlane drew in developing the concept, uses both, while McFarlane uses 'inhabiting' to discuss the world of policy mobilities. This may be because, as McFarlane admits, the term 'dwelling' has a static, residential connotation. There is a subtle difference between the two terms that makes 'inhabiting' a better concept for studying the processes of learning that occur in the world of mobile policy and policymakers. Inhabiting better describes more transitory situations: we dwell in our home, but we inhabit a meeting room for an hour. Learning through dwelling requires an extended engagement and interaction with a particular environment, such as those carried out by the social movements that McFarlane discusses in *Learning the city*. The brief moments of inhabiting, by contrast, more accurately characterize the transitory experiences that typify the fast-paced world of planning consultancy.

Examining how ideas move through inhabiting is an important counterbalance to what some have argued is an overemphasis in the policy mobilities literature on neoliberalization as a force driving the travels of policies (Bunnell 2013; Jacobs 2012). Unpacking the underlying ideologies of mobile ideas is certainly important. Cities are more likely to adopt ideas that fit with their desired approach or ideology (Zhang 2012). However, ideology is not the only driver behind the mobility of idea. In this article, I take the view that one should give equal attention to the everyday practices of the actors involved in an idea's global spread. This approach builds on McFarlane's argument that, as researchers, we need to pay attention to 'how the materialities, contingencies and everyday practices – i.e. the work of learning as dwelling – which may appear mundane and inconsequential in relation to ideology, can be critical to how learning occurs and to the sorts of urbanism and urban politics that emerge' (McFarlane 2011a: 145).

The consultants that make up the GIC regularly use inhabiting as a strategy in the planning process to introduce and sell to their clients the model of sustainable urbanism. The power of inhabiting as a strategy for encouraging the take-up of ideas stems from two things. First, as an experiential form of learning, it engages the senses and encourages the retention of information; and, second, it enables people to take in and process information in a seemingly independent way. However, as I will demonstrate, it is possible to construct the experience of inhabiting in such a way as to encourage the person seeing or experiencing an idea to take away a particular impression. From a study of inhabiting, we see how power is expressed in the planning process and, as a result, in the larger circulation of ideas about sustainable urbanism.

In the planning process, learning through inhabiting can occur in a number of different ways. Materials, including images, videos and models are particularly important resources in the built environment industry. Materials are useful in part because moving ideas from the realm of the abstract to that of the lived and experienced requires giving them a spatial form (Grubbauer 2014). Similarly, experiences such as study tours can create opportunities for tangible interactions with new ideas, for instance by taking a ride on a light rail, or observing how a sustainable urban drainage system is incorporated into a neighbourhood.

Learning about sustainable urbanism by seeing or experiencing it allows people to develop their own opinions and impressions. However, it is important to pay attention to the way that inhabiting can be tailored towards the achievement of specific objectives. To this end, it is important to acknowledge what Grubbauer (2010: 65) describes as 'the constructed nature of visual communication'. Grubbauer points out that there is a process of decision-making behind the experience of learning through inhabiting. There is a connection, for example, between the meaning of an image and the process of image production, which is guided by anticipating the reaction of the intended audience (Grubbauer 2008). One can design study tours to show some aspects of a place and to obscure others (González 2011; Peck 2011).

Given this, it is important to unpack the purpose of inhabiting and the power dynamics at play. An approach to conceptualizing power that is closely aligned with, and therefore a useful complement to, an assemblage thinking approach, is proposed in the work of John Allen (2003, 2011a, 2011b). Allen argues that power is not centred (the property of a person or thing) but a relational effect of social interaction. He proposes that there are many modes of power, including authority, coercion, domination, inducement, manipulation, seduction, negotiation and persuasion.

Allen's relational conceptualization of power underpins the discussion that follows of how inhabiting is used to encourage the take-up of ideas. Consultants commonly use three of the forms of power that Allen describes when encouraging inhabiting – authority, persuasion and seduction. According to Allen, each of these modes of power is associated with a form of social relations. Authority is a form of power 'over' others, but is distinguished from domination in that it is conceded, not imposed (Allen 2003: 6). Seduction, unlike authority, does not aim to dominate, but rather to encourage a particular desire. It operates in an environment in which there is choice and, as a result, 'always the possibility of refusal or indifference' (Allen 2003: 31). Persuasion involves the use of arguments to convince actors to adopt ideas. It is distinguished from similar forms of power such as seduction by the fact that it can only operate in an environment where there is a symmetry of relationships, that is, in the context of a 'two-way process of communication to exercise the "power to" achieve shared outcomes' (Allen 2003: 125–6).

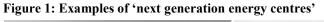
A key driver of the demand for the GIC's services is their specialist expertise in sustainable urbanism and the authoritative power it affords. However, interviewees stated repeatedly that ideas are not taken up on the back of a consultant referring to his or her own expertise. Selling sustainable urbanism relies in great part on the ability of consultants to bring the imaginary of the model to life. To do so, they use inhabiting to filter their expertise through strategies drawing on other forms of power, specifically seduction and persuasion. Of course, as the discussion below will highlight, power does not rest solely on the supply side of travelling ideas.

Interviews with consultants and reviews of their master plans revealed the importance of using a carefully curated portfolio of images and experiences to convince clients to adopt the ideas presented to them. Consultants recognize the persuasive power of arguments, which enable clients to inhabit new ideas or proposals, and many of them are skilled at creating experiences that encourage this. The next two sections of this article illustrate how consultants use inhabiting as a tactic to convince their clients to take up their proposals for incorporating sustainability into their projects. Thereafter, I focus on how consultants use visual media, in particular photographs, digital renderings and videos, to encourage inhabiting and, finally, on the use of experiences.

Inhabiting through visual media

Master plans frequently use photographs and digitally created renderings in an illustrative fashion, usually to show what a design principle or technology looks like, but also to demonstrate the viability of the plan. Figures 1 and 2 are excerpts from a master plan for a new town in South Asia. A team consisting of an American architectural and design firm and a British engineering consultancy prepared the master plan.¹ The figures show two different ways of using images in master plans. Figure 1 shows examples of district energy centres. In a district energy system, a central plant distributes heating or air conditioning to buildings via an underground network of pipes. It can be more energy-efficient than other approaches to generating and distributing energy. As a result, GIC consultants often recommend such a system as part of the sustainability strategy for large-scale urban development projects. However, like many sustainable technologies, in many countries implementing district energy requires making a shift from accepted, conventional practices.

When proposing the use of a new or unfamiliar technology, consultants have to find ways to persuade their clients to try something different. Images such as those in Figure 1 make the technology seem more familiar. Ideally, it should encourage the client to inhabit the idea by visualizing how a district energy centre might fit into their project. Using a collage of several images also reinforces the consultant team's authority. The collage demonstrates that it is a sound idea to include this technology in the proposed project because it has already been successfully implemented in multiple sites around the world.





Images licensed for reuse under the Creative Commons Attribution-ShareAlike licence. Clockwise from top left: Suitcivil, Tom Jollifee, Peter Robinson, Wladyslaw.

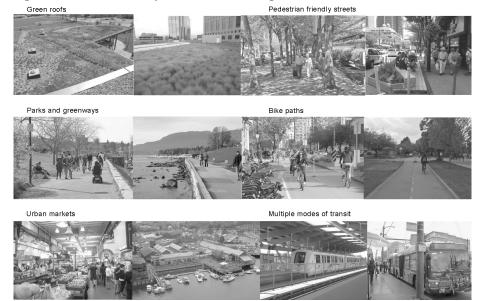


Figure 2: Visual summary of sustainable design features in Vancouver

Images licensed for reuse under the Creative Commons Attribution licence. Credits: Kxcd, Waterbucket, Paul Kruger, Andrew Raun, flightlog, zhatt, Po Yang, Ariel Kettle.

The same master plan also included, as background research, a 'liveable city analysis'. In the analysis, the consultants identified some of the common urban planning and design features of five cities that are ranked high in two global urban quality-oflife indices (Mercer's Quality of Living City Ranking and the Economist Intelligence Unit's Global Liveability Ranking). The analysis notes that certain features, such as parks and greenways, cycling facilities and mass transit are repeated across many of these cities. Figure 2 is a collage of images from the master plan summarizing sustainable design features in the city of Vancouver, Canada, which performed well in both indices. The collage illustrates six urban planning and design features of Vancouver, which provide a seductive and persuasive vision of what sustainable urbanism can look like. The quantity and range of images also gives the viewer a strong feel for what the city itself might be like to live in, inviting the viewer to inhabit the example.

The tactics described above to facilitate the adoption of particular approaches to sustainability had mixed success. My research ended in 2012 when the construction of this particular development was only just beginning. On reviewing the website for the development, which is now under construction, it appears that the proposal for a district energy centre was unsuccessful. However, the client, a large private sector property developer, clearly liked the tactic of benchmarking his city against other prominent international ones. The website boasts about using the world's greatest cities as a benchmark for the development and specifically highlights how the new city will compare with places like San Francisco and Sydney in term of provision of green space and short commuting distances.

In addition to images of already existing places, the GIC use visual media to materialize proposed developments. Architectural drawings, or renderings, are a common method of illustrating virtual worlds in the built environment industry. Renderings, now usually created digitally, are particularly important to encouraging the take up of new ideas. This is because the version of the assemblage of sustainable urbanism that will be on a site exists only virtually during the planning process. Renderings bring the consultants' vision of sustainable urbanism to life in a way that enables people to inhabit a still non-existent place. These images play a critical role in selling the vision that the consultant team develops for a project.

Interviews revealed that practitioners think carefully about how to compose their renderings and what they would like to communicate with them. The point of view (POV) rendering, which shows a scene from the perspective of a person on the street, is particularly effective in encouraging a sense of inhabiting. Figure 3 is an example of a POV rendering, for a proposed project in Panama. The consultants at the firm that produced this image discussed in interviews their firm's preference for POV images and renderings, as they give the person looking at the image more of a feel of the actual experience of being in a place. Interviewees at another prominent British architectural practice discussed the demand for such images from their clients. They referred to them half-jokingly as 'cappuccino pictures' in reference to the common placement in such images of happy urban residents enjoying their cappuccinos.

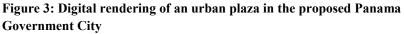




Image credit: SOM | Crystal CG 2011. Image reproduced by permission of copyright holder.

Another increasingly common way of materializing ideas about proposed building practices are promotional videos. A 2010 promotional video for Masdar City, a low-carbon urban development in Abu Dhabi, takes the viewer through a virtual version of the city, complete with cappuccino drinkers, while a voiceover describes the city's many objectives and virtues. Renderings and videos, particularly those created for marketing purposes, are explicitly designed to be seductive, to entice the viewer to accept or endorse the project being visualized.

Visual media is a powerful way of communicating the features and advantages of sustainable urbanism in a way that encourages their adoption in a new place. They can bring ideas to life, illustrating what a proposal looks like when materialized. Images of real-world examples and precedents bolster consultants' authority as experts by demonstrating their knowledge and experience. They can also form part of a strategy of persuasion, by demonstrating that a particular approach is viable and proven. Renderings and videos, by presenting an attractive vision of what could be, are designed largely to seduce. The use of images as well as words is critical. By showing, rather than just telling, the GIC invite their clients and other audiences for their work to engage with their proposals on a sensory level. This strategy of learning through inhabiting is designed to increase the likelihood that the audience will consider their proposals and that sustainable urbanism will travel.

As the example of the district energy system highlights, there are limits to the power and ability of consultants to see their proposals taken up. Myriad factors, many outside the control of either consultants or clients, shape the clients' decision-making processes. One interviewee, a British engineer, described how his company developed what he saw as a persuasive proposal for a district energy system powered by bio-fuels for a project in China, only later to learn that the government had already planned to connect the project to a coal-fired power plant.

In addition, clients may take up ideas selectively. In one design competition observed for the research, the client amalgamated illustrative images from several different competition entries into a guidance document, which they then returned to the competitors shortlisted for the next phase of the competition. Several GIC interviewees described the sustainability proposals in their master plans as more of a starting point for negotiations than a final design. Consultants present a menu of options and do their best to sell particular proposals. Ultimately, though, the final decision about what travels rests with the client or those entities whom the client relies upon to move the project forward.

Inhabiting through experience

Visual media such as images and movies can give a sense of experiencing, but they still engage only a few senses. When actually experiencing a place, we engage all five senses. Experiential learning in the planning process does not necessarily require going anywhere. Consultants often use the fact that their clients are likely to have travelled widely to establish what they are looking for in a plan, and to show them how they can align these objectives with those of the model of sustainable urbanism.

The director of the planning practice for a large international multidisciplinary built

environment consultancy explained in an interview that during the planning process clients might reference somewhere they have visited, but 'they often don't know precisely why they like something. ... So you can help them to understand what the qualities that perhaps they would like are.' Another interviewee, an urban designer, made a similar point. The only way to get clients to explain what they want, in his view, is to ask them to put themselves back into an experience of a place. It is important, he argued, that clients explain to him the specifics of what appealed to them, that they:

not only say, I like Paris – what did you like in Paris? Could you describe something that you actually liked to me? A square, or just a building, or a little bench, or a tree – anything that they actually can picture in their mind, that you can translate, then you know what you like. Then you know what to do, and how to do the things you are going to do for that client or that government.

In this way, consultants use inhabiting in an attempt to understand their client's preferences and to elicit what ideas are likely to appeal to him or her.

As well as encouraging them to draw on their own experiences, consultants can take their clients to places where they can see the principles of sustainable urbanism in action. A senior member of the team that designed the Dongtan Eco-City project, one of the earliest high-profile sustainable urban projects proposed in Asia, described how they convinced their clients of the viability of urban design and engineering ideas never before tried in China. However, he explained, 'every bit of it we could show them and take them there, which we did. We took our client to a lot of these places and showed them. It gave them a lot of confidence.' A director of an internationally active Canadian urban planning firm explained how he drew on New York City's decision to pedestrianize Times Square in negotiations with transport engineers.

You go to the department of City Public Works and you say 'why don't you take a lane out of this road and extend the café tables into it.' And they say 'you've got to be kidding.' So you walk them down the streets of New York and say 'huh'. Nothing succeeds like an example.

One component of the research underpinning this article was to participate in and observe a weeklong study tour of sustainable urban projects in northern Europe. The impetus for the study tour was a proposed project outside Melbourne, Australia. The lead developer of the project, Dave, was working with an urban planner, Matt, who had been on many study tours previously and found the experience valuable.² Dave was relatively new to the development industry and eager to learn. Together, he and Matt devised the idea of undertaking a study tour of sustainable urban projects in Europe so that Dave could see the types of ideas that Matt was proposing first hand.

Ultimately, this strategy of persuasion through experience was successful. At the end of the tour, Dave said the trip had given him 'confidence in the sense that I now have a much better grasp of what makes great communities, and I now have greater confidence in the team behind me, and see what they've advised me is actually what worked in practice'. Experiencing sustainable urbanism first hand persuaded Dave of its value and he came to trust his advisers' expertise. In a follow-up interview, Dave reflected on the value of experience. 'I think sometimes, or most of the time, we are hard-wired to experience things for ourselves and learn that way, and I think it is no different in learning about community building and what makes great communities. We can read all we want, but we need to experience the journey ourselves.'

Many interviewees agreed with Dave that actually experiencing a place is the most effective way of learning. However, inhabiting is about more than just experiencing a place. It requires interacting with the surrounding environment on a sensory level, seeing it, hearing it, feeling and even smelling it. These interactions facilitate, as Dave says, a journey from one way of understanding and interpreting something to another. Many of the participants on the European study tour were able to experience and interact with aspects of sustainable urbanism through a bicycle and walking tour of Copenhagen; an experienced, passionate and prestigious architect and urban designer conducted the walking tour, which provided the context and background to Copenhagen's transformation from a city of cars to one of bicycles. The bicycle tour allowed the participants to experience the city as a local person would. In follow-up interviews, two tour participants cited these experiences as important in convincing them of the viability of the bicycle as a form of urban transit.

Other research participants, however, were more sceptical about the value of visiting places often held up as examples of good sustainable urbanism. A senior government official in Singapore accustomed to working with international practitioners commented in an interview:

If you look at Freiburg and Hammarby and all these Utopias ... I have visited them in Germany and Sweden, all very wonderful but how many Asian cities can do that? ... If you go to Mumbai and try to bring in a Freiburg or Hammarby, it's very difficult. Their types of problems are really very different.

This interviewee's comments highlight a significant area of authoritative power held by the GIC's clients – authority on the needs of their particular city. Several consultants interviewed raised the point that no matter what tactics they proposed in support of their ideas, clients could always shut them down with the simple claim that the proposal was inappropriate or irrelevant to the context of their city or project. I also witnessed this type of interaction when taking part, as a participant observer, in planning workshops with clients.

In discussing the use of images and experiences to encourage inhabiting, in this section and the one preceding it, I touched on the power dynamics at play when one uses inhabiting as a strategy to encourage the adoption of sustainable urbanism in new contexts. In the penultimate section of the article, I explore these issues further, in particular the way people can direct the experience of inhabiting towards particular objectives.

Seeing is believing ... or not quite?

While many of the interviewees mentioned how 'seeing is believing', it is important to recall Grubbauer's point about the constructed nature of visual communications. An

international urban designer, who took part in the study tour, raised this point in a follow-up interview when he argued that, in 'the age of Photoshop', in which we are living, design professionals carefully tailor images to leave us with a particular impression. While he made this point partly to encourage people to see places for themselves, he was also acutely aware that to some extent it is possible to produce and curate experiences, like images, for use as part of an argument.

Visiting a place allows you to form your own judgement of it and to see aspects that do not make it into the descriptions available in books or online. Yet, what visitors glean from a study tour is very much, as González (2011) points out, based on a version of a story constructed by a particular set of actors. The actors putting together a tour itinerary may be quite selective; for instance, they may only take visitors to see showcase examples (Peck 2011). Not only this, but visitors will reshape narratives and experiences in retelling them, and also may take home a mistaken impression of a place (McCann 2011; Ward 2013). One interviewee put it as follows.

Everybody is running around trying to kick the dirt and see, you know, tangible examples, but the irony is ... depending on whom you speak to, you still do not know what the hell is going on. ... What is still the problem in this whole area is that you go and see a tangible example but what, who is telling you about it and what actual story are you getting?

This interviewee highlights the highly curated nature of experiences of inhabiting, in which it may not be immediately evident how people are using their powers of seduction and persuasion. When consultants compile images or organize study tours, a number of factors shape the forms that these take. These include the consultants' existing knowledge, the availability (and language) of information and, not least, what their objectives were in putting together the study and their intended audience.

For example, images of places that have been successful in implementing particular design principles can lend an air of authoritative expertise to the proposals in a master plan. The plan excerpted in Figure 2 puts forward a set of features of the good city by making reference to an existing city already externally validated as such. In doing so, it glosses over not only the subjectivity of city rankings in general, but also the process of assembling the images. The analysis of precedents in the master plan from which this image is taken was painstakingly assembled by the authors, drawing not just on the global quality of life surveys but also on their own experience, knowledge and preferences as well as the materials (in this case photographs) at their disposal.

Likewise, simply using an image in a master plan involves a process of decisionmaking about the best way to communicate a particular message. The images used in the master plans analysed for this research present a vision of a particular version of the assemblage of sustainable urbanism. The images of the energy centres in Figure 2, with their sleek, modern designs and no sign of smoke or other polluting discharge, offer a clear contrast to conventional imaginaries of power plants. Similarly, it is not by chance that there are no motorcars in the Vancouver collage. The GIC produce carefully designed computer-generated images for their master plans. In 'cappuccino pictures', the sun is always shining and children are always playing. The more negative features of urban life, such as traffic congestion and pollution, are entirely absent. Such renderings, as well as the professionally commissioned photographs of the so-called exemplars of sustainable urbanism, make up the majority of images in circulation that claim to represent what sustainable urbanism is and can be. Consultants design the images to present an ideal, one that helps sell the idea of sustainable urbanism. However, this ideal is more representative of the ambitions of property developers than of the diverse range of approaches around the world to actually constructing sustainable urban places.

Conclusion

In this article, I have explored how international consultants in the built environment industry use learning through inhabiting to encourage the adoption of the planning model of sustainable urbanism. Using images and experiences to facilitate learning through inhabiting can be a successful strategy for encouraging the take-up of new ideas. Inhabiting creates a sensory experience that brings the imaginary of sustainable urbanism to life, and reinforces the potential impact of an idea. An image of a district energy centre demonstrates that this technology is viable, a visit to Copenhagen that citizens can be persuaded to take up cycling. The GIC use inhabiting in ways that draw on the authoritative power that comes from their reputation as experts, as well as their skill in using images and experiences to persuade and seduce.

Inhabiting, then, which allows people to 'live the assemblage' of sustainable urbanism (McFarlane 2011b), is a key process through which the model moves. Yet, mobilizing ideas is a complex social practice. Consultants' efforts to implement sustainable urbanism in a new context are shaped by numerous processes and interactions on a project's journey from conception to implementation. Clients are free to adopt only a selection of the sustainability features proposed by their consultants, as in the South Asian project highlighted earlier, adapt them to their own ends, or ignore them entirely. Whether or not an urban development project incorporates sustainable urbanism may have little to do with the utility of the specific design and planning ideas proposed by its designers. Other elements of the assemblage of sustainable urbanism – the seductiveness of materials summarizing a best practice case study, or the perceived authority of the architect who presents the ideas to the client – may in fact be more influential.

The material impact of travelling ideas on transnational building practices can be difficult to predict. This finding supports the argument, made in the introduction, that theory building in this area requires further empirical studies focusing on the processes and everyday practices by which ideas travel. Doing so, in real time if possible, provides a nuanced view of the everyday business of the actors and materials that play a critical role in mobilizing ideas. More studies of this type would allow scholars to draw on the knowledge produced to work inductively towards more accurate and insightful theorizations about travelling ideas.

Notes

- 1. To encourage interviewees to speak freely and candidly, and to guarantee their anonymity, I have not used their real names. Similarly, access to the master plans analysed here was granted on condition I did not identify the associated project.
- 2. These are pseudonyms.

Acknowledgements

The research underpinning this article was supported by an Engineering doctorate studentship in the Centre for Urban Sustainability and Resilience at University College London, funded by the UK Environmental and Physical Sciences Research Council and Happold Consulting. I am grateful to James Faulconbridge and Monika Grubbauer for their comments and support throughout the process of drafting the article. I am also indebted to three anonymous peer reviewers whose comments helped me improve and clarify my arguments. Any mistakes or omissions are of course my own.

References

- Allen, J. (2003) Lost geographies of power, Oxford: Blackwell, doi: 10.1002/9780470773321.
- Allen, J. (2011a) 'Powerful assemblages?', Area, 43 (2), 154–7, doi: 10.1111/j.1475-4762. 2011.01005.x.
- Allen, J. (2011b) 'Topological twists: power's shifting geographies', *Dialogues in Human Geography*, 1 (3), 283–98, doi: 10.1177/2043820611421546.
- Anderson, B. and C. McFarlane (2011) 'Assemblage and geography', *Area*, 43 (2), 124–7, doi: 10.1111/j.1475-4762.2011.01004.x
- Anderson, B., M. Kearnes, C. McFarlane and D. Swanton (2012) 'On assemblages and geography', *Dialogues in Human Geography*, 2 (2), 171–89, doi: 10.1177/2043820612449261.
- Banerjee, T. (2009) 'US planning expeditions to postcolonial India: from ideology to innovation in technical assistance', *Journal of the American Planning Association*, 75 (2), 193–208, doi: 10.1080/01944360902790711.
- Bunnell, T. (2013) 'Antecedent cities and inter-referencing effects: learning from and extending beyond critiques of neoliberalisation', *Urban Studies*, published online before print, doi: 10.1177/0042098013505882.
- Choplin, A. and A. Franck (2010) 'A glimpse of Dubai in Khartoum and Nouakchott: prestige urban projects on the margins of the Arab world', *Built Environment*, 36 (2), 192–205, doi: 10.2148/benv.36.2.192.
- Cochrane, A. and K. Ward (2012) 'Researching the geographies of policy mobility: confronting the methodological challenges', *Environment and Planning A*, 44 (1), 5–12, doi: 10.1068/a44176.
- Crot, L. (2010) 'Transnational urban policies: "relocating" Spanish and Brazilian models of urban planning in Buenos Aires', Urban Research & Practice, 3 (2), 119–37, doi: 10.1080/17535069.2010.481217
- DeLanda, M. (2006) *A new philosophy of society: assemblage theory and social complexity*, London: Continuum.
- Deleuze, G. and F. Guattari (2004) *A thousand plateaus: capitalism and schizophrenia*, London: Continuum.
- Faulconbridge, J. R. (2010) 'Global architects: learning and innovation through communities and constellations of practice', *Environment and Planning A*, 42 (12), 2842–58, doi: 10.1068/a4311.
- González, S. (2011) 'Bilbao and Barcelona "in motion": how urban regeneration "models" travel and mutate in the global flows of policy tourism', *Urban Studies*, 48 (7), 1397–418, doi: 10.1177/0042098010374510.

- Grubbauer, M. (2008) 'Images of office architecture in the media: the paradigm of urban competitiveness and global interconnectivity', in F. Eckardt (ed.) *Media and urban space: understanding, investigating and approaching mediacity*, Berlin: Frank & Timme, 105–132.
- Grubbauer, M. (2010) 'The high-rise office tower as a global "type", in M. Guggenheim and O. Söderström (eds) *Re-shaping cities: how global mobility transforms architecture and urban form*, Abingdon: Routledge, 63–80.
- Grubbauer, M. (2014) 'Architecture, economic imaginaries and urban politics: the office tower as socially classifying device', *International Journal of Urban and Regional Research*, 38 (1), 336–59, doi: 10.1111/1468-2427.12110.
- Healey, P. (2010) 'Introduction: the transnational flow of knowledge and expertise in the planning field', in P. Healey and R. Upton (eds) *Crossing borders: international exchange and planning practices*, London: Routledge, 1–28.
- Hillier, J. (2008) 'Plan(e) speaking: a multiplanar theory of spatial planning', *Planning Theory*, 7 (1), 24–50, doi: 10.1177/1473095207085664.
- Ingold T, (2000) *The perception of the environment: essays on livelihood dwelling and skill*, Abingdon: Routledge.
- Ingold, T. (2008) 'Bindings against boundaries: entanglements of life in an open world', *Environment and Planning A*, 40 (8), 1796–810, doi: 10.1068/a40156.
- Jacobs, J. M. (2012) 'Urban geographies I: still thinking cities relationally', *Progress in Human Geography*, 36 (3), 412–22, doi: 10.1177/0309132511421715.
- Joss, S. (2011) 'Eco-cities: the mainstreaming of urban sustainability; key characteristics and driving factors', *International Journal of Sustainable Development and Planning*, 6 (3), 268– 85, doi: 10.2495/SDP-V6-N3-268-285.
- King, A. D. (1976) Colonial urban development: culture, social power and environment, Abingdon: Routledge.
- King, A. D. (2004) Spaces of global cultures: architecture, urbanism, identity, Abingdon: Routledge.
- Lagendijk, A. and S. Boertjes (2013) 'Light rail: all change please! A post-structural perspective on the global mushrooming of a transport concept', *Planning Theory*, 12 (3), 290–310, doi: 10.1177/1473095212467626.
- Larner, W. and N. Laurie (2010) 'Travelling technocrats, embodied knowledges: globalising privatisation in telecoms and water', *Geoforum*, 41 (2), 218–26, doi: 10.1016/j.geo forum.2009.11.005.
- Lee, Y.-S. and E.-J. Hwang, (2012) 'Global urban frontiers through policy transfer? Unpacking Seoul's creative city programmes', Urban Studies, 49 (13), 2817–37, doi 10.1177/ 0042098012452456.
- Lowry, G. and E. McCann (2011) 'Asia in the mix: urban form and global mobilities Hong Kong, Vancouver, Dubai', in A. Roy and A. Ong (eds) *Worlding cities: Asian experiments* and the art of being global, Oxford: Wiley-Blackwell, 182–204, doi: 10.1002/978144434 6800.ch7.
- McCann, E. (2008) 'Expertise, truth, and urban policy mobilities: global circuits of knowledge in the development of Vancouver, Canada's "four pillar" drug strategy', *Environment and Planning A*, 40 (4), 885–904, doi: 10.1068/a38456.
- McCann, E. (2011) 'Urban policy mobilities and global circuits of knowledge: toward a research agenda', *Annals of the Association of American Geographers*, 101 (1), 107–30, doi: 10.1080/00045608.2010.520219.
- McCann, E. and K. Ward (2010) 'Relationality/territoriality: toward a conceptualization of cities in the world', *Geoforum*, 41 (2), 175–84, doi: 10.1016/j.geoforum.2009.06.006.
- McCann, E. and K. Ward (2012) 'Assembling urbanism: following policies and "studying through" the sites and situations of policy making', *Environment and Planning A*, 44 (1), 42–51, doi: 10.1068/a44178.

- McFarlane, C. (2011a) *Learning the city: knowledge and translocal assemblage*, Chichester: Wiley-Blackwell, doi: 10.1002/9781444343434.
- McFarlane, C. (2011b) 'Assemblage and critical urbanism', *City*, 15 (2), 204–24, doi: 10.1080/13604813.2011.568715.
- McFarlane, C. (2011c) 'The city as assemblage: dwelling and urban space', *Environment and Planning D: Society and Space*, 29 (4), 649–71, doi: 10.1068/d4710.
- McNeill, D. (2009) The global architect: firms, fame and urban form, New York: Routledge.
- Moore, S. (2010) "'More Toronto, naturally" but "too strange for Orangeville": de-universalizing new urbanism in Greater Toronto', *Cities*, 27 (2), 103–13, doi: 10.1016/j.cities.20 09.10.004.
- Moore, S. (2013) 'What's wrong with best practice? Questioning the typification of new urbanism', Urban Studies, 50 (11), 2371–87, doi: 10.1177/0042098013478231.
- Nasr, J. and M. Volait (eds) (2003) Urbanism: imported or exported?, Chichester: Wiley-Academy.
- Olds, K. (2001) *Globalization and urban change: capital, culture, and Pacific Rim megaprojects*, Oxford: Oxford University Press.
- Peattie, L. R. (1987) Planning: rethinking Ciudad Guayana, Ann Arbor: University of Michigan Press.
- Peck, J. (2011) 'Global policy models, globalizing poverty management: international convergence or fast-policy integration?', *Geography Compass*, 5 (4), 165–81, doi: 10.1111/ j.1749-8198.2011.00417.x.
- Peck, J. and N. Theodore (2010) 'Recombinant workfare, across the Americas: transnationalizing "fast" social policy', *Geoforum*, 41 (2), 195–208, doi: 10.1016/j.geoforum.2010.01.001.
- Peck, J. and N. Theodore (2012) 'Follow the policy: a distended case approach', *Environment and Planning A*, 44 (1), 21–30, doi: 10.1068/a44179.
- Prince, R. (2010) 'Policy transfer as policy assemblage: making policy for the creative industries in New Zealand', *Environment and Planning A*, 42 (1), 169–86, doi: 10.1068/a4224.
- Prince, R. (2012) 'Policy transfer, consultants and the geographies of governance', *Progress in Human Geography*, 36 (2), 188–203, doi: 10.1177/0309132511417659.
- Rimmer, P. J. (1991) 'The global intelligence corps and world cities: engineering consultancies on the move', in P. W. Daniels (ed.) Services and metropolitan development: international perspectives, Abingdon: Routledge, 66–106.
- Roy, A. (2011) 'Commentary: placing planning in the world—transnationalism as practice and critique', *Journal of Planning Education and Research*, 31 (4), 406–15, doi: 10.1177/ 0739456X11405060.
- Shatkin, G. (2008) 'The city and the bottom line: urban megaprojects and the privatization of planning in Southeast Asia', *Environment and Planning A*, 40 (2), 383–401, doi: 10.1068/ a38439.
- Temenos, C. and E. McCann (2012) 'The local politics of policy mobility: learning, persuasion, and the production of a municipal sustainability fix', *Environment and Planning A*, 44(6): 1389–406, doi: 10.1068/a44314.
- Ward, K. (2006) "Policies in motion", urban management and state restructuring: the trans-local expansion of business improvement districts', *International Journal of Urban and Regional Research*, 30 (1), 54–75, doi: 10.1111/j.1468-2427.2006.00643.x.
- Ward, S. V. (2005) 'A pioneer "global intelligence corps"? The internationalisation of planning practice, 1890–1939', *Town Planning Review*, 76 (2), 119–41, doi: 10.3828/tpr.76.2.2.
- Ward, S. V. (2013) 'Cities as planning models', *Planning Perspectives*, 28 (2), 295–313, doi: 10.1080/02665433.2013.774572.
- Zhang, J. (2012) 'From Hong Kong's capitalist fundamentals to Singapore's authoritarian governance: the policy mobility of neo-liberalising Shenzhen, China', Urban Studies, 49 (13), 2853–71, doi: 10.1177/0042098012452455.