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Building type production and everyday life:

Rethinking building types through actor-network theory and object oriented philosophy

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Abstract: *The aim of this article is to reconceptualise 'building type' in order to better account for its general role in society and everyday life. The article merges the concept of building type with actor-network theory and object oriented philosophy in order to develop the concept of territorial sorts as a way of widening building type research and making it more useful for investigating how building types are actually produced, not just in terms of the work done by different kinds of authorities, such as architects, engineers and building regulations, but also in terms of the ongoing practices and power relations of everyday life.*

Keywords: building types, everyday life, territorality, actor-network theory, object-oriented philosophy, topology

The concept of building type has traditionally been based on two different kinds of logic, either the logic of form (materiality and construction) such as the morphological schemata of Jean-Nicolas-Luis Durand's *Preçis* (1802–5), or the logic of function, such as the division into different usages in Nikolaus Pevsner's *A History of Building Types* (1976). Much of the discussion of building typology is also centred

on the relationship between these two logics and how they interrelate. Scheer names these two different perspectives *formal type* and *use-type* (Scheer, 2010: 12; cf. Markus, 1993: 33ff.), and the discourse of building types, as it has evolved in the research fields of, for example, morphology and architectural theory and history, has tended to focus on one side of the split between form and function. The focus on either form or function could sometimes have advantages, but becomes problematic in discussions on building type production. As Scheer has suggested, the production of a successful building type often includes a synomorphic evolution of form and use where "a series of functions /…/ have been choreographed and refined over time, in part because of the existence of a successful type" (Scheer, 2010: 32).

Building types play fundamental, and sometimes unrecognised, roles in our societies, not just in urban planning and architectural design, but also in the simple ongoings of everyday life. To investigate this further, one would, however, need a building type theory that allows us to focus on events and effects rather than forms and functions. In this article, I use actor-network theory and object oriented philosophy to develop a building type theory that better addresses the complex and sometimes user-driven production of building types in society. In the first part I develop an actor-network perspective (Latour, 2005) that, by bypassing the traditional dichotomies of form and function, helps us to describe building types as a heterogeneous and multi-scalar phenomenon. In *Mapping Controversies in Architecture* (2012), Albena Yaneva has proposed an architectural theory inspired by actor-network theory (hereafter ANT) and the theories of Latour (Latour, 2005), seeking to trace an 'architecture on the move', as it unfolds in practice (Latour and Yaneva, 2008). Yaneva's approach, following ANT closely, does not take dualisms such as society and architecture (or form and function) as givens, but looks at architectural processes as they unfold from a more undifferentiated and anthropological perspective (Yaneva, 2012:25-48). With the help of fluid topology as described by Mol and Law (Mol and Law, 1994; 2001), I also develop a perspective on building types as territorial sorts, where territorial sorts can be described as a kind of territorial stabilisations by actors, interconnected through "various more or less viscous combinations" (Mol and Law, 1994:660). In the second part of the article, I use object oriented philosophy (Harman, 2009; 2010c; 2011) in order to investigate the role of objects in building type production further. A building type is not just a spatial product, but is also an autonomous object of its own

– in fact, this double role is, as we shall see, of the essence in processes of typologisation. In the third and last part, I argue that, although suggestive in its openness towards the wondrous and partly unknown world of the object, object oriented philosophy poses a problem for building type theory, since the substantial, singular aspect of the object remains hidden we are still left with relational typology as the only alternative. Here, I argue, that one way ahead is to frame some of the insights from object oriented philosophy as a new kind of spatial topology (Law, 2004). The article thus concludes by arguing for how object oriented philosophy (as actor network theory before it, Law and Mol, 1994) can be framed by a topological perspective, more specifically as a *radiant topology*, and how this approach opens up for a new approach of building type studies.

Building types as territorial sorts

During the eighteenth and nineteenth centuries building typologisation was an important means of disciplining the users, and the building type was conceptualised as a kind of machine with a specific outcome (Sack, 1986; Markus, 1993). The modernist architects of the twentieth century also took a great interest in types as a way of trying to secure certain social outcomes, and perhaps even more as way of enabling an efficient and *zweckmässig* production of architectural buildings. Types were thus used in standardization work and *Typisierung*, as found, for example, in the writings of early modernist architects such as Hermann Muthesius, Hannes Meyer and Walter Gropius (Guggenheim, 2011). Gropius claimed, for example, in 1926 that: "The creation of standard types for all practical commodities of everyday use is a social necessity" (Gropius, 1975: 148). Typologisation became an end in itself. Architectural discourse became increasingly involved with the consumer society after World War II. The rise of the consumer society has also had an impact on the way building types work and spread, no longer just as *prototypes* and *archetypes* for building producers (architects, engineers, constructors, government authorities, etc.), but also through the theming and branding of companies, and in the spatial inventions of different organisations and subcultures. This proliferation of different kinds of hybrid building types has also shown that building type production and stabilisation is a much more fluid and complex technology than hitherto has been acknowledged

(Kärrholm, 2012). Building types have always travelled, but the intensity and hybridity seem to be increasing today. One might even claim, as Söderström has argued, that: "the increasing polyphony of urban artefacts is a distinctive feature of contemporary cityscapes" (Söderström, 2010: 191). The proliferation of new building types and the increasing complexity of building type production have opened up for a new take on the role of building types in, for example, the production of urban landscape (Lee and Jacoby, 2011), on how building types transform and spread globally (King, 2004), and on issues relating to how building types affect everyday life and political situations (Easterling, 2005). Built types today come in all shapes and sizes, ranging from objects such as different types of street furniture (Serra, 1996), to different types of urban landscapes and sprawls (cf. Hayden, 2004), and they are produced by consumers as well as by production machines, through tactics as well as strategies (Certeau, 1988), appropriation as well as domination (Lefebvre, 1991), and by different social organizations and local use groups as well as by companies, brands, and nations (cf. Klingmann, 2000; Easterling, 2005).

Territorial sorts I: Fluidity

The introduction of new building types during the nineteenth century was heavily influenced by the formal classification of natural history and philosophy (made, for example by Buffon, Linneaus and Wolff), and it was most often a formal and morphological one describing architecture in analogy with, for example, the formal criteria applying to the classification of plants (Steadman, 2008: 21ff). These kinds of normative and sometimes stipulative approaches gave stable and static definitions. These are useful when it comes to distinguishing a certain species from another, establishing clear relations between categories, etc., but can be contrasted with descriptive definitions and an ongoing accumulation and listing of qualities related to our knowledge about how to use a certain object in an ongoing life (cf. Eco, 2009:231). A normative dictionary definition of 'bear' is good when you are studying bears, but not of much use if you actually encountered a real bear. Such a description would have to be open-ended rather than final, pragmatic rather than formalistic. This is also what an ANT perspective on building types would imply. First, building types only exist because they make a difference in the world, they take on an actor role in a

specific situation (they are enrolled in one or more networks), as for example in the utterance: "You must be quiet, this is a library!" Second, building types are themselves always produced by a series of actors and this production is an ongoing process, which means that a listing of the effects or characteristics of a building or a building type is always just a temporary thing.

How can we then conceptualise building types in a way that still allows 'building type' to be an open ended affair, transformable yet recognisable, classifiable yet fluid? Caniggia and Maffei state that building types: 'indicate any group of buildings with some characteristics, or a series of characteristics, in common' (Caniggia and Maffei, 2001: 50). A very similar definition can also be found in Scheer (2010), who defines building type as "an abstract characterisation of a set of buildings that have common formal characteristics" (Scheer, 2010: 27). These definitions are practical from a lexical point of view, but my argument here is that we (also) need building type conceptualisations that enable us to better address the messiness and complexity of contemporary building type production (cf. Law, 2004). Might there, for example, not be two libraries, parlours, theme parks, bus stops, churches, or whatever architectural type you want to choose, that do not even have one single characteristic in common? I argue that there could.

In order to develop this notion further we must, however, go from definitions (and matters of naming) to ontology. Building types and spatial categorisations, I argue is not just something that helps us describe the world, but they also have basic influence on the ways we act and move about in everyday life, and in order to describe building types better, one must first investigate how they come to have effects on our everyday life. My main argument here is not that the basic nature of building types and how they work have changed over the years in any deep sense (but they may have, cf. Kärrholm 2012: 95-118), nor that our conception or 'reading' of building types have changed (but see Guggenheim 2011 for an interesting discussion of this). My argument is that the roles building types play in our society has not yet been fully acknowledged. In order to account for these different roles we need to investigate some basic aspects of building type ontology – what do building types do and how are they produced?

I will, however, start with a more epistemological question: What does it mean to recognise or not recognise something as belonging to a certain type? A type of place can be identified at a glance, but also by means of motoric conduct or gestures ('praxic' aspects to follow Warnier, 2007). This recognition through use (or the absence of it) could easily and quickly override a meticulously well-constructed and stabilised network (Guggenheim, 2010: 166). A network of stabilised actors[1] means that relations between the actors are made non-redundant, the type is constructed and made predictable through a stable relation between this series of actors (Law, 2002:91). A McDonald's restaurant is a good example of a type characterised by network stabilisation. All the actants are stabilised, black boxed, and can easily be reproduced in new places. However, despite being a stable and pre-programmed place it is always open to territorial production. All of a sudden, a child might see the lines on the restaurant floor as a place to play hopscotch. In one glance she has, by way of territorial association (Kärrholm 2012; Brighenti and Mattiucci, 2012), produced and identified a 'hopscotch place'. This type could be described as stabilised by means of fluid stabilisation (Mol and Law, 1994; 2001; Law, 2002). Fluid stabilisation takes place through a set of actors who all have what Wittgenstein calls a certain family resemblance.[2] Fluid spaces are thus never dependent on one aspect alone (an obligatory point of passage) to sustain their effect – each single part of the object could be replaced. Spaces can change bit by bit by losing or gaining new actors. A hopscotch place could, just like a bus stop or a dining room, take on any number of different guises. Of course one might reach a point where a space could no longer be recognized as belonging to a certain type, where too many objects have been replaced, or something too unfamiliar to the specific spatial identity at hand has been introduced. However, it also follows that two different examples of a type, if seen as fluid, might, at least in theory, have no actor in common at all, providing that there are other known examples of this sort that have actors in common with both.

[1] An actor is here used as something that brings about a certain effect in a specific situation, it is a concept that is used to separate what a thing does from what it is (cf Latour, 2005; Greimas, 1987; Hammad, 2002). Actant is used here to denote a more abstract actor, that is, to specify a 'typical actor' (so my own specific yellow coffee cup could be an important actor in my coffee break, whereas, speaking more in general, a coffee cup is often an important actant in all sorts of coffee break situations, cf Greimas, 1987: 106-120; Latour, 2005:71).

[2] Although Mol and Law suggest a possible difference from Wittgenstein's concept in stating that it "may or may not be possible to separate a fluid into its components" (Mol and Law, 1994:660).

Following this line of thought, one way to allow for a more dynamic description of building types than to see them as networks, black boxes, archetypes, prototypes, etc., would be to see them as fluid *territorial sorts*. A territorial sort could be used to describe a set of related territories that can all be associated with the same kind of activity or with the same set of activities, such as museums, libraries, schools, banks, pedestrian precincts, alcoves or telephone booths. Building types are always territorial in the sense that they play a part in strategies used for affecting or controlling people and relationships "by delimiting and asserting control of a geographic area" (Sack, 1986: 19). Building types play an important role in territorial associations and strategies produced in the urban landscapes of today, and I think it is fair to argue that building type theory could also be seen as a part of territorology (Brighenti, 2010; Kärrholm, 2012). Territoriality is a process (Brighenti, 2010: 53), and as such it includes both human and non-human actors. The girl who identifies the hop-scotch diagram in the tiles of the restaurant floor is as crucial to the territorial production (and the association to this territorial sort) as the tiles. The hopscotch place, furthermore, need a lot of work to be sustained (and it is this kind of work and the actors it includes that would interest an ANT- researcher).

Territorial sorts I: Heterogeneous actors and multi-scalar effects

It has justly been argued that type is one of the most important ways by which architecture makes its marks upon the city (Scheer, 2010:2 ff.), and the relationship between architectural types and the urban scale is a recurrent theme throughout the history of urbanism. Ildefonse Cerda, often considered the inventor of the concept of urbanism, developed his own version of urbanism through block typology. Modernistic urban planning has been described by Panerai et. al. (2004) as the story of the decline and death of the urban block, thus connecting urban structure to the urban block and, implicitly, suggesting the block as an urban type *per preference*.[3]

[3] We have also recently seen a number of studies investigating the relationship between building types and global scale, including the role, mobility and impact of, for example, American skyscrapers (King 2004), open-air museums (Hancock 2010) and Hilton hotels (Wharton 2001).

Building types thus have multi-scalar effects, but these have often been reduced to a bilateral relation. The production of building types and their effects on urban life are, however, not limited to a certain scale (such as the urban scale or the building scale) or a certain sort of substance (such as morphological patterns or built structures), but involve heterogeneous actors of different sizes and shapes, abstract and concrete, human and non-human, spaces and objects, down to coffee cups and ephemeral phenomena such as atmospheres. The effects of objects cannot be reduced to up-scale actors, meaning that the total effect (in a certain situation) of, for example, a school can neither be reduced to the school building nor to the headmaster. The effects of a school of course also depend on the teachers, classrooms, blackboards, desks, students, etc. Morphological research has often missed both the people and the artefacts. Sometimes only pieces of furniture or the behaviour of a stray visitor distinguish an art gallery from a library (cf. Rapoport, 1990: 101). Specific artefacts have also often played a crucial role in the evolution of building types. In retail architecture, the possibility of making larger window panes during the mid-nineteenth century became crucial to the development of larger and deeper stores (Pevsner, 1976: 258). Price labels, packaging systems and artificial light were all important actants to the rise of the department store, the shopping cart was an important actant for the supermarket, etc. At the urban and regional scales, new territorial sorts and building types such as shopping malls and department stores, all affect and transform the way cities and urban landscapes are being formed and developed. The pedestrian precinct is an interesting example. Although it has a somewhat older history, it seems fair to argue that the pedestrian precinct evolved as an important architectural type in the wake of the consumer society after the 1990s. It was primarily in the 1990s that consumption, gentrification and attraction of up-scale shoppers (rather than, for example, traffic safety and mobility issues) became the main argument for pedestrianisation (Loukaotios-Sideris & Ehrenfeucht, 2009: 255), and it was also during the late 1990s that pedestrianisation began to play an important part in the production of quite homogeneous shopping areas in a number of European cities. The pedestrian precinct could almost be seen as a paradigm type when it comes to gathering and distributing effects on a whole range of different scales. In my studies on the pedestrian precinct in Malmö, Sweden (Kärrholm, 2008), it became obvious how the development of the precinct also gathered a lot of new temporary territorial

sorts, such as markets, festivals, outdoor cafés within its borders, and promoted urban design programs on a micro-scale with uniform street furniture. The pedestrian precinct rapidly multiplied its relations with places outside its territory. As the precinct became increasingly mono-functional and homogenous both in terms of morphology and use, it also became an important actor and co-producer of new urban morphologies outside the precinct, such as middle class suburban areas (nearby), large infrastructure projects (in the expanding region) and large production facilities and factories (in other countries).

Scale is a much discussed subject in human and political geography, and I will not go in to the different scale debates here. In their article "Globalizations big and small" (2010), Latham and McCormack review earlier takes on scale in their discussion on space as being either fundamentally scalar in the ways it acts (a view advocated by such researchers as Neil Brenner, Neil Smith and Eric Swyngedouw) or flat and non-differentiated (as advocated by Latham and MacCormack). Although the first strand often points to scales as not inherent to the world, claiming that their ordering is complex and often part of political struggles, Latham and McCormack argue for the advantages of a 'flat' ANT perspective and recognition of how networks always create their own scale, a scale that "cannot be mapped on to a neat hierarchy of scales" (Latham and McCormack, 2010:67). Scales are produced everywhere and if one pre-defines them as urban, sub-urban, regional, etc., one runs the risk of concealing multi-scalar and spatial effects that are not part of the interrogative matrix. The advantage of an ANT perspective of territorial sorts, as suggested here, is that it is better suited to describing urban transformations where effects on new scales are produced continuously. If we are to find and study the effects of built types in the urban landscape, we must be aware that these can take on any size and shape: they cannot be studied on the basis of one or even a series of predefined scales.

Territorial sorts III: Mobility

One of the key features of the building type is that it is a kind of abstraction that allows for mobility. This is evident, for example, in Guggenheim's and Söderström's description of the building type as:

> a classification that does not link buildings to their site or place of origin, but to other, usually social and functional classifications, devoid of local references. (Guggenheim and Söderström, 2010: 5)

In *Re-shaping Cities*, Söderström and Guggenheim use the building types to describe "how the here in the built environment is always also elsewhere" (Söderström and Guggenheim, 2010:3). This has also been investigated by Anthony King in his studies on the bungalow as a key example of how a certain building type spread globally during the nineteenth and twentieth centuries (King, 2004; 2010). The territorial sort can also be described as an abstract vehicle that allows for a certain kind of building or place to move and even be transformed without losing its identity. In this sense it is the effect that defines the sort: materialities and actors that make up the sort may change, but as long as the effect remains similar, the sort is sustained. One thing about fluidity, however, is that the more different actors that can be connected to the sort, i.e. the more possible shapes and figures a certain territorial sort can take on, the more moveable it becomes. As the variety, i.e. the total number of distinct configurations of a specific sort increase, the possibilities of making an association increases as well. Whereas Latour states, in his logic of the immutable mobile (Latour, 1987: 226–227), that things becomes moveable through a stabilised network topology, a territorial sort such as the hopscotch place becomes mobile owing to its mutability (cf. Law and Mol, 1994; 2001). Since it is fluid, i.e. it can change actors and take on a number of different forms and materials, it can also be easily adjusted to the specific circumstances of different places.

During the first half of the twentieth century, building types were ideally made mobile through network stabilisation (becoming immutable mobiles), reproducible building parts or types evolved through standardisation, that is, a stable set of relations between reproducible actors. The more one can describe an object as the effect of network stabilisation, the more predictable it becomes: all actants are there, firmly fixed in their positions and doing their job. This was also an important part of the modernisation process: to make life more effective and productive through planning and 'social engineering'. In the type production of today, seduction and 'surprise' seem to be much more aimed for, and both the formation and spread of

types seem to follow a somewhat different logic – perhaps fluidity has become increasingly important to building type production.

One basic strategy for building type production today is hybridization. New building types are multiplying through the fluidity of sorts, as cafés become associated with bookshops (in-store dining), education with shopping malls (edutainment retail) and shopping with cafés (in-café stores). One interesting example here is the *idea store*. The idea store is a building type in spe and consists of a local library with different kinds of information services, studios, a café, and a local history archive. A number of idea stores were introduced in the London Borough of Tower Hamlet during the first decade of the twenty-first century. A lot of libraries were in great need of repairs during the late 1980s, and a large scale market research consultation was conducted in order to determine how to make the public library better used (Wills, 2003:107). The idea stores were designed by David Adjaye and aimed at promoting local culture and citizenship even in their designs. The first idea store on Chrisp Street in London (2001–2004) was constructed on top of an existing shopping centre from the 1950s, and the design concept was initially inspired by retail design (Wills, 2003: 114). An important part of the design guidelines was, for example, seamless activities, flexibility (in order to change the interior every two or three years), adaptability, supporting self-help, accessibility with a clear route through the whole building, and a porous boundary between the public street and the building, all classic features of retail architecture (Allison, 2006: 158–207). In short, one could argue that it was the fluidity of the ‘store’ and ‘the ‘library’ as territorial sorts that to some extent initially allowed for hybridisation and the production of the idea store as a new type. The stabilisation of the type does, however, also work through a network stabilisation: the idea stores of Tower Hamlet became a unified type by reproducing compulsory actants, such as the green glass or the logo, actors found in all of the idea stores. In this sense, the case of the idea stores followed a traditional brand and theming logic (similar to Starbucks, McDonalds, etc.). Idea stores have, however, also received attention outside the UK, (for example in Sweden), and if network stability played an important part in the establishment of the type, the mobility of the type seemed, in this case, to be allowed owing to the fluidity of the territorial sort.

Territorial sorts and object oriented philosophy

Above, I have used ANT and the notion of fluidity to investigate how the concept of building types could be readdressed as territorial sorts in order to acknowledge the diversity of ways in which they are produced and have impacts. One aspect that one might need to investigate deeper, however, is that both ANT as described by Bruno Latour and the spatial topologies developed by Law and Mol are very much inscribed in a relational ontology. The view of objects or spaces as defined solely by relations is a philosophical tradition that can be found, for example, in the philosophy of David Hume, and that was stated by Nietzsche in his critique of Kant in *The Will to Power*:

> The "thing-in-itself" is nonsensical. If I remove all the relationships, all the "properties", all the "activities" of a thing, the thing does not remain over; because thingness has only been invented by us owing to the requirements of logic, thus with the aim of defining, communication (to bind together the multiplicity of relationships, properties, activities). (Nietzsche, 1967:302)

Relational ontology makes sense in investigations of different kinds of stabilisation and dispersion when the empirical material is rich, but when it comes to aspects of invention and speculation where the empirical material on how life is affected has yet to be produced (like in an architectural design situation), its analytical power seems weaker. ANT is a useful tool to describe a process of strategical singularisation and desingularisation, i.e. how building types are purposely created and then reproduced and spread. ANT is, as Latour himself puts it, about: "studying change in a technological society" (Latour et. al., 2010: 90). This might seem natural since the origins of the theory can be found in science and technology studies developing new ways of investigating the production and dispersion of scientific 'facts' (Latour and Woolgar, 1979). The example of the idea store gave us a fairly common example of building type production, and it would probably be well suited to a conventional actor-network theory study. It is, for example, easy to imagine an interesting study on the controversies of the idea store design, very much in parallel to the studies made of the London Olympics stadium by Yaneva (2011; 2012), following the controversies and actors as they unfolded in the process.

However, the short example of the girl and the hopscotch place above does not seem equally suitable to study by the mapping of controversies or by following actors slowly stabilising into networks. The work done and the controversies are not, apart from a few (perhaps between staff, parent, child), acted out in place but might risk leading us away from the situation we are interested in and on to other places and situations, such as to the history of hopscotch (a lot of ANT studies turn out to follow a successive or narrative logic, and rather than illuminating the richness of a place they illuminate the richness of a certain process). Furthermore, hopscotch places are produced everywhere and even in the most unlikely places, they are not backed up by a specific organisation, profession or discipline, but spread informally. Nevertheless, the hopscotch place is an architectural situation, it is a process where materialities are mobilised to produce a specific territorial sort. In the recent discussion on architectural design there has been increased interest in producing fluid and temporal spaces where people can participate as co-producer of the place, replacing the view on architecture as produced by a single hero (the architect) to that of architecture as an act of collaboration (Petrescu, 2007; Till, 2007; Kossak et. al., 2010; Awan et. al., 2011). The production of the hopscotch at a restaurant is made possible by the fluidity of the sort hopscotch, but that is not all, there are other actants at play here, such as the material qualities of the restaurant floor and the persistent and experimental activities of the child. When focusing on building types we need to be able to account for how building types are produced and have effects, but also on how, for example, different territorial sorts can be produced through the everyday life situations of different groups or individuals on the spot (that is, the *tactics* of building type production, cf. Certeau 1988)?

The dormant and singular object

In his object oriented philosophy (hereafter called OOP), Graham Harman's aim is to increase the ontological autonomy of objects. While acknowledging a heavy influence from, for example, ANT and its reinstating of objects as important actors in the world, Harman argues that objects are always more than the sum of the networks in which they participate. To Harman, the world consists primarily of objects, and he defines an object as "anything that has a unified reality that is autonomous from its wider context and also from its own pieces" (Harman, 2011: 116). Thus an object

does not have to be a physical thing but could also, for example, be a trademark or a fictional character, and it can be of any size, durability, or level of simplicity (Harman, 2010c: 147f). A dream could be an object, and so could a dragon, a nation or a lamp post, and it is these objects and their relationships that produce the world. Harman thus sees the world as produced by objects and their relations. The world meets us in chunks and pieces.

This first argument is still pretty close to ANT, but a second argument put forward by Harman is that objects can never be fully known or exhausted in terms of use or knowledge. Harman develops this point from Heidegger: neither theory nor practice can exhaust an object of its possibilities (an object is not just *zuhanden*, but also *vorhanden*, independent and withdrawn from human actions). There will always be aspects of the object that are hidden. Harman thus insists on the autonomy of the object:

> When fire burns cotton, it makes contact only with the flammability of this material. Presumably fire does not interact at all with the cotton's odour or colour, which is relevant only to creatures equipped with sense./…/The being of the cotton withdraws from the flames, even if it is consumed and destroyed. (Harman, 2011: 44)

Every object, every grain of sand, has an "in-itself" (Harman, 2011:137) unattainable by other objects, and no relation between objects (whether human or non-human), will fully define or "use up" those objects. There will always be hidden qualities, dormant aspects and effects not yet seen (or perhaps never to be seen). In this sense Harman points out a hidden world of objects that needs to be better explored, and opens up for studies that takes objects such as spaces, places, artefacts and architectural design elements as a starting point (which Latour, taking a more processual perspective, explicitly discourages, Latour, 2005: 196). Since objects are the prerequisites of knowledge, they should, according to Harman, also be seen as the main target of our studies. In *Reassembling the Social* (2005), Latour used the concept of plasma to denote the 'not yet', that, is the missing masses of the world in-between the networks (Latour, 2005: 242). But, following Harman, we do not need to wait for a network to break to address these unknowns, it is the objects themselves that we need to address, and even though they will remain forever hidden, this does

not prevent us from investigating their whereabouts in the sensual sphere in any way we find suitable, nor does it stop such investigations from being rewarding. Instead of taking the relational approach and saying that objects are produced by their relations alone, leaving reality to be constructed by something other more "real" than the objects themselves (as in the quotation from Nietzsche above), Harman thus argues that there are real objects, but we can never know them in full. It is impossible to see the whole of an object in all its guises, to know it fully or to use it in all possible ways.

Without necessarily buying in to the whole Harman ontology, I suggest that a lesson from OOP could be not to settle with already established object relations. The 'dormant' qualities that objects seem to have must instead challenge us to new ways of investigation. The object cannot be defined by its existent relations since every object also has a temporal and on-going (towards the yet-to-be) existence. Or to put it in an ANT context: we need to account for temporal just as much as spatial relations: objects are not stabilised by spatial topologies (as suggested by Law and others), but by spatiotemporal topologies (which I will develop further below). Furthermore, one could argue that since one can never know, see or use all aspects of any object the number of actor roles of any given human or non-human is indefinite), an object can, as perceived or conceived, at any given moment be described as a kind of caricature or abstraction.

These notions of abstraction and temporality accord quite well with the work of Whitehead who says that "Objects are the elements in nature which can 'be again'" (Whitehead as cited in Stengers, 2011:75). Objects thus always have an abstract side, otherwise it would not be possible to recognise them again (assuming that two different moments are never identical). We cannot, according to Whitehead, "abstract without recognition, and we cannot recognise without abstraction" (Whitehead as cited in Stengers, 2011:77). The problem of the architectural type is thus actually connected to quite basic existential questions: What is it to encounter an object? How does an object relate to any other? Architectural types are not just large scale constructions moving over the world, nor do they necessarily need to be constructed by an architect or an engineer. The production of architectural types, or territorial sorts, can be done by every child from a very early age. As soon as we recognise, by

way of association (through, for example, bodily movement, sight, smell or sound) a third spatial object as similar to two others, we have also produced a territorial sort. The most abstract of types is often the most easily associated (learned early in childhood), and heterogeneous in use, such as a climbing tree, a sunbathing spot, a wind shelter or a bathing place, etc. Abstraction makes things reproducible. This abstraction must not be based on sight alone, but could just as well include the abstraction of a bodily relationship (for example, recognising the rhythm of walking set by a procession stair, recognising an odour, etc.). Harman argues that there is a singularity (Kopytoff, 1986) to each object, something that cannot be made redundant or exchangeable, but as much as this singularity is an essential part of the object, so is the process of desingularisation (that is, when a certain thing becomes reproduced, seen again, and thus also part of a typologisation process).

Harman (like Latour) advocates a kind of flat ontology where scales are produced and multiple rather than pregiven or nicely hierarchized. The effect of an object depends on its relationships with other objects (Harman, 2010). However, every object also has autonomy, an effect that is different from that of its pieces. Harman sees objects as a kind of assemblages (much like De Landa, Harman, 2010b:12f.), where no object can be reduced into another object or other objects. A stone is not more of an object (or actor) than a stone wall or vice versa. This is an important point in building type theory and in discussions on territorial sorts. Territorial sorts are produced, e.g. by the relationship of a series of actors or objects, and they can be reproduced, but each territorial sort is *also* an object of singularity. Territorial sorts like ‘the kitchen’ can, although it is arguably more abstract than a specific kitchen (like ‘my kitchen’), be seen as a ‘dormant’ object which can, under certain circumstances, produce concrete activities, bodily repertoires and new meanings.

Allure

I argue that it could be rewarding to open up for more experimental object studies (cf. Bennett, 2010: 108), methods that deliberately provoke objects into new effects. If we accept the position of Harman, then the world is:

> broken in advance into individuals, each withdrawing from the other no less than they withdraw from us, accessible only through allusion rather than direct

> contact, and perhaps approachable only with a good deal of 'poetry' to which some concede no cognitive value at all (Harman, 2010a: 789).

Clarice Lispector's poetical study of Brasilia in 1964 is just such an attempt. She tries patiently to produce new associations that would give meaning to her relation with the then newly built, strange city:

> If they were to photograph me standing in Brasilia, upon developing the film only the landscape would emerge. – Where are the giraffes of Brasilia?/…/Unable to sleep. I look out of my hotel window at three o'clock in the morning. Brasilia is a landscape of insomnia. It never sleeps. – Here the organic being does not disintegrate. It becomes petrified. – I should like to see five hundred eagles of the blackest onyx scattered throughout Brasilia. (Lispector, 1986: 138f).

If objects have 'dormant' qualitites (Harman, 2010b: 15) we might need constant production of new methods to wake them from their slumber. This is in itself a good argument for more explorative and perhaps art-based research, i.e. a research practice where the methods are seen as producing rather than just describing the world (Law 2004). Harman mentions the poetical investigation, and Lispector, I argue, actually carried out such an investigation. Poetics is arguably one way of gathering new collectives: objects 'withdrawing', or made invisible through blackboxing, can be made visible again through the creative production of new assemblages. However, there are other means of allure than poetics (at least if poetics is seen as limited to literary discourse). In architectural research (including architectural morphology), for example, it might be justified to use more corporeal methods of investigating objects of the built environment, having to do with bodily techniques and materiality (cf Warnier, 2007). In *The Corporality of Architecture/The City as Terrain*, Emma Nilsson deals with the role of architecture in the production of bodily practices and terrains, and one of her examples is the birth of parkour in the suburb of Lisses outside Paris (Nilsson 2012). This example is interesting, since it allow us to illustrate how materialities and concrete form might play a crucial role in architectural type production. Lisses is a typical 1970s neighbourhood and includes a green zone with a large sculpture by Pierre Szekely called *La Dame du Lac*. Nilsson points out a series of actors that played an important role in the birth of parkour during the early 1990s,

such as Sébastien Foucan, David Belle, Georges Hérbert with his *méthod naturelle* and Szekely with his *La Dame du Lac,* and how parkour was born in relation to this specific place in Lisses and produced together with a specific architectonic terrain (Nilsson, 2010:53f, 156f). New parkour sites were then initiated gradually as people experimented with similar or related terrains in different cities, and less than two decades later parkour parks were an established architectural type. The first purpose-built parkour park, "the JiYo park", opened in Ørestaden, Copenhagen, in August 2009 (Nilsson, 2010:190 ff.) followed by a number of others in Sweden and Great Britain, for example. A traditional history of this building type would perhaps start in Copenhagen, but from the perspective of territorial sorts we need to start in the material specificities of Lisses. Nilsson notes that it is no co-incidence that parkour was born in a modernistic housing area and that the most popular spots are still found in these kinds of environments. These areas were often designed with an emphasis on sections with quite well articulated and asymmetrical height differences, and built with a materially rough structure. Both these aspects make different kinds of jumps possible. Nilsson compares this to the 'night climbers', a climbing culture from Cambridge, England, in the early twentieth century that developed in close connection to a historicising architecture with well-articulated and decorated facades with, for instance, exterior sewage pipes (called 'chimneys') and mouldings, thus affording climbing (rather than 'parkour jumps', Nilsson, 2010:184 ff.).

Hybridisation has been mentioned as one way of producing new types: using the fluidities of two territorial sorts to produce a third. This does not, however, help us to describe the ways in which the youths of Lisses introduced/extracted new usages and meanings to/from *La Dame du Lac* and their own neighbourhood (producing both bodily cultures and parkour terrains). How was this new territorial sort, the 'parkour spot', produced?

Harman calls the separation of an object from its accidentental qualitites for allure (Harman, 2005; 2007). This split can, for example, be the split between a distant sun (given different symbolic properties) and heat (Harman, 2009:220 f.), or it can be made metaphorically, by associating an object with the qualities of another. Harman gives a large number of examples: "In language, names call out to objects deeper than any of their features; in love, the beloved entity has a certain magic hovering beneath

the contours and flaws of its accessible surface" (Harman, 2007:200). Allure is something that puts an object in a new light and makes it clear that an object is not the same as its qualities (in a certain context). It is thus "the engine of change within the world" (Harman, 2005:179). What affect me are not just the qualities of the thing, but the object as an irreducible whole. Harman-objects are thus primarily aesthetic in the sense that they can be felt for their own sake, they have singularity and are appreciated beyond cognition (Harman, 2007: 200 ff). Allure recognizes the object as something other than its accidental context or qualities, enabling a new encounter and the production of something new, such as a new territorial association. Objects always have the capacity of surprising us. Allure brings the object into play by acknowledging that it is always something other than its accidental or temporarily established relations.

I argue that the '*Dame du Lac* experiments' conducted by Belle and Foucan were such architecturally very interesting moments of allure. The development of bodily techniques is an interesting way of investigating and waking both human and non-human objects from their slumber. Territorial sorts and material objects such as outlying sewage pipes (for climbers), slanted walls (for traceurs or traceuses) and empty swimming pools (for skaters), have all, through allure, played important parts in the production of new territorial sorts and architectural types.

Towards a topological approach

Although OOP might lead to certain new insights to building type theory it also comes with some obvious problems: objects might be real and singular entities of themselves (and perhaps they even constitute the building stones of the world), but if the knowledge of their real nature is always hidden, then the categorisation of different territorial sorts might still only be done through a relational and historical approach, i.e. we are still left with the possibilities of a relational, but not a substantial typologisation.[4] However, what we can learn from OOP is to take the relation

[4] I would like to thank one of the anonymous referees for making this point clear to me.

between different modes of an object and its qualities/relations more seriously.[5] OOP do, for example, open up for a sensitivity to relations between different states of the same object – the relation of its different actor roles (possible, actual, long since gone, etc.) in different contexts and times. Such a spatiotemporal relational system seems to be of interest to investigations of building type production, since it would allow us to better account for how new relations could be associated to an object, and how these associations could be part in processes of both stabilisation and destabilisation

Topology is used by John Law in order to discuss the continuity of shapes: how can a certain shape maintain its form even though some properties are changing (Law, 2002:94)? Law then goes on to describe how objects can be produced and stabilised by multiple spatial topologies (such as fluids, networks, fire and regions), for example, investigating how an object can maintain a stability within one topology while breaking down in another. Laws spatial topologies can be seen as a kind of 'figures' of relational ontology that specifies and sets the prerequisites for possible shape relations. One way of using OOP insights in discussions on territorial sorts could be to introduce it as such a spatial (or better, spatiotemporal) topology. Framing some insights from Harman within Law's and Mol's topologies might seem like an odd (and from an OOP perspective perhaps even violent) thing to do, but I argue that it could help us to investigate how the allure of a singular and 'dormant' object, actually can be seen as an important means of producing and stabilising territorial sorts.

OOP insists on the singularity and productivity of the for-ever hidden real objects. Allure opens up new usages by relating to the object as a whole, and producing associations beyond a certain temporally stable relation. This might perhaps give the illusion that allure is a way of closing in on some mystic and hidden 'real object'. Allure could, however, better be explained as a moment of transformation depending on a stabilisation that is not produced by networks, fluids, regions or fires, but by a certain continuity withheld through the proliferation of new relational contexts for the object. The object is stabilised by that which 'remains over' despite transfiguration

[5] The relations between what Harman calls the real object, its real qualities, the sensual object and its sensual qualities, has been discussed as an intricate relational system in several of Harman's texts (for example in Harman, 2010b and 2011).

through new relational contexts, or more accurately, it is that which is produced by the continual relation of the object to itself as it is altered through different timespaces. There are always some aspects of the objects that will not change – a small parking spot will never become a hypermarket – and these aspects will be better known, the object will stabilise, as we investigate it. One might, much like Lispector, put Brasilia into all thinkable and unthinkable relations, but something of 'Brasilia' still remains there to be recognized. One might produce new territorial sorts through new and inventive use of elements of post-war brutalistic architecture (or a statue such as Dame du Lac), enforcing rather than overwriting the identities of these objects – in fact it is the creativity and the proliferation of new relations that unfold this stability. An object might produce new actor roles through every new relation, but this production of different actors also produces 'a sameness' – that which still remains (the object produced by this 'sameness'). The tendency of always producing new relations and transformations (which perhaps becomes most obvious in what Serres calls blank objects, Serres 1991, but which also is a basic assumption in ANT insisting that all actors act as transformative mediators, Latour, 1999), could perhaps also be used to describe a relational figure, much like fluids, fires, regions and networks. This would imply that Harman's discussions of the relations between a 'real' sphere and a 'sensual' sphere is here not given a specific ontological status beyond other relational systems, but that this relation (at least as expressed in the phenomenon of allure) also could be more humbly inscribed as a relational topology among others, i.e. as the relation between the object and itself through a series of different spatiotemporal contexts. One could thus keep a perspective of relational ontology where the 'dormant' quality of an object can be seen as produced by spatiotemporal relations established through a stability across different networks. This kind of relational system follows a kind of *radiant* figure in the sense that it implies an on-going proliferation of new actor roles, roles that, while hiding (or othering) the objects roles outside the specific network, still manages to produce a continuous shape precisely through the persistence of a certain sameness sustained by the emission of constantly new relations. Radiant stabilisation is thus a kind of aporetic procedure patiently looking for blocked paths (Marramao 2007: 37-51), it enables a kind of *via negativa* where the on-going productions of relations and usages also results in an increased knowledge about how a subtraction of object relations could be

possible (without the object losing its identity). It is a form of stabilisation that small children do as they try the same object over and over again until they come to know and trust it, and it is also a basic way in which we stabilise certain materialities as trustable and recurrent territorial sorts. Just as this kind of stabilisation can be a way of getting to know and stabilising a yet-to-be-known-world, it can also be a way of producing new territorial sorts out of everyday life interactions (the yet-to-be-produced-world). The appropriation and persistent use of an architectural object might lead to a reconceptualisation of its identity and, furthermore, to the stabilisation of a new territorial sort (like the 'parkour-spot').

Conclusion

To take building type production seriously we also need to be able to account for the informal and non-organised production that is done in the practices of everyday life. The traditional concept of building type is still often defined from a perspective of production (trying to pin-point some common feature as defining the type), but if we include a more diverse user perspective these kinds of definitions become obsolete – types are often produced in a much more fluid, informal and collaborative manner. In order to account for this I developed the notion of building types as heterogeneous and multiscalar *territorial sorts.* A territorial sort could be used to describe a set of related territorial productions that can all be associated to a similar set of activities. Territorial sorts spread quite easily (and democratically) through *fluid stabilisation*, as fluid stabilisation enables travel at lower cost but with greater transformation than, for example, network stabilisation (which would imply great costs but a low degree of transformation). A common contemporary building type production is hybridisation, a blending of existing sorts or the creation of new assemblages out of old ones. Hybridisation makes use of the fluidity of different territorial sorts in order to stabilise a type that is then dispersed through network stabilisation and black-boxing.

The possibilities of finding new usages and developing new types are, however, not just something that can be accomplished by way of the already existing spatial relations of network or fluid topologies. Objects are basically aesthetic, they are felt for their own sake, and they can be manipulated to reveal new sides through *allure*. A

building type can thus not just be seen as a spatial product (produced, for example, by different actors), but through trial-and-error-processes and experimentation it can also stabilise by an association to the object that goes beyond temporarily stabilised relations. Inspired by OOP, and its elaborations on object relations, it seems possible inscribe a new topology within the relational ontology of ANT (as developed by Law and others). The tendency of stabilising an object through the production of differences could be described through a topology of *radiance*: the relation between the object and itself through different spatiotemporal situations, where the stabilisation of a persistent identity evolve as an, often unintended, consequence of accumulated object relations through time (i.e. the identity produced by the emerging of new actor roles, coupled with a growing sense that certain usages of the object seems to be out-of-character or blocked).

Building types can no longer be seen just as objects of interest for historical studies. They play active parts in societal change and in the ongoing power relations in the urban landscape. They have a huge impact on urban development, urban planning, architectural design and the very ways in which we behave and act. It has long been known that building types both enables and disables power relations (Foucault, 1977), but their openness to transformation (even by single persons or objects) and their possibilities of producing alternative futures have often be neglected. This means that the Foucauldian strategy of producing a 'history of the present' (cf. Roth 1981), which has been quite dominant in building type research, must be complemented by investigations of current processes, and perhaps even by speculations on possible processes in the future. Building types are resourceful objects that can both be transformed and transform our doings in different and as yet unforeseen ways. The point here is to call for building type research that not only investigates building types as networks of actors, stabilised or transformed as they move or change context, but a building type research that also allows for experimental studies of how a certain architectural type or object can be manipulated and *allured* into producing new sides. Building type research must take a step out into the field of everyday activities, and I hope that the discussion on territorial sorts and different forms of stabilisation as initiated here, could be a small step in that direction.

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Literature

Allison P, 2006 *David Adjaye* (Thames and Hudson, London)

Awan, N, Schneider T, Till J, 2011 *Spatial Agency, Other Ways of Doing Architecture* (Routledge, London).

Bennett J, 2010 *Vibrant Matter, A Political Ecology of Things* (Duke University Press, Durham)

Brighenti A M, 2010 "On Territorology, Towards a General Science of Territory" *Theory, Culture and Society*, **27** 1–21Brighenti A M and Mattiucci C, 2012 "Visualising the riverbank" *City*, **16** 221-234

Caniggia G, Maffei G.L, 2001 *Architectural Composition and Building Typology* (Alinea, Firenze)

Certeau M de, 1988 *The Practice of Everyday Life* (University of California Press, Berkeley)

Easterling K, 2005 *Enduring Innocence* (MIT Press, Cambridge MA)

Eco U, 2009 *The Infinity of Lists* (MacLehose Press, London)

Foucault, M, 1977 *Discipline and Punish* (Pantheon Books: New York)

Greimas A J, 1987 *On Meaning: Selected Writings in Semiotic Theory* (Frances Pinter, London)

Gropius W, 1975 "Bauhaus Dessau – Principles of Bauhaus Production, 1926" in *Form and Function* Eds. Benton, Benton and Sharp (Crosby Lockwood Staples, London) 148-149

Guggenheim M, 2010 "Mutable immobiles: building conversion as a problem of quasi-technologies", in *Urban Assemblages* Eds I. Farías and T. Bender (Routledge, London) 161–178

Guggenheim M, 2011 "(Un-)Building social systems, the concrete foundations of society" in *Comunicaciones, semánticas y redes* Eds I. Farías and J. Ossandón (Universidad Iberoamerica, Santa Fe) 245-271

Guggenheim M, Söderström O, 2010 “Introduction: Mobility and the Transformation of Built Form”, in *Re-Shaping Cities*, Eds Guggenheim M Söderström O (Routledge, London) 3–20

Hammad M, 2002 *The Privatisation of Space* (LTH, Lund)

Hancock M, 2010 “DakshinaChitra, translating the open-air museum in southern India”, in *Re-Shaping Cities* Eds Guggenheim M Söderström O (Routledge, London) 101–122

Harman G, 2005 *Guerrilla Metaphysics* (Open Court, Chicago)

Harman G, 2007 “The importance of Bruno Latour for philosophy” *Culture studies review*, **13**, 31-49

Harman G, 2009 *Prince of Networks, Bruno Latour and Metaphysics* (Re.press, Melbourne)

Harman G, 2010a “I am also of the opinion that materialism must be destroyed” *Environment and Planning D: Society and Space*, **28**, 772-790.

Harman G, 2010b “Time, Space Essence, and Eidos: A new theory of causation” *Cosmos and History: The Journal of Natural and Social Philosophy,* **6** 1-17

Harman G, 2010c *Towards Speculative Realism* (Zero books, Winchester).

Harman G, 2011 *The Quadruple Object* (Zero books, Winchester)

Hayden D, 2004 *A Field Guide to Sprawl* (Norton, New York)

Hensel M, 2011 ”Type? What type? Further reflections of the extended threshold” *AD* **81**, 56-65

Hillier B, 1996. *Space is the Machine* (Cambridge University Press, Cambridge)Kärrholm M, 2008 “The territorialization of a pedestrian precinct” *Urban Studies*, **45** 1903-1924

Kärrholm M, 2012 *Retailising Space* (Ashgate, Farnham)

King A, 2004 *Spaces of Global Cultures* (Routledge, London)

King A, 2010 “Notes Towards a Global Historical Sociology of Building Types”, in *Re-Shaping Cities*, Eds Guggenheim M, Söderström O, (Routledge, London) pp 21–42

Klingmann A, 2007 *Brandscapes* (MIT Press, Cambridge MA).

Kopytoff I, 1986 “The Cultural Biography of Things”, in *The Social Life of Things*, Ed A Appidurai (Cambridge University Press, Cambridge) 64–91

Kossak F, Petrescu D, Schneider T, Tyszczuk R, Walker, S (Eds.) 2010 *Agency: Working with Uncertain Architectures* (Routledge, London)

Latham A, Mccormack D, 2010 "Globalizations big and small: notes on urban studies, Actor-Network Theory, and geographical scale", in *Urban Assemblages*, Eds I Farías, T Bender (Routledge, London)

Latour B, 1987 *Science in Action* (Harvard University Press, Cambridge MA)

Latour B, 1999 *Pandora's Hope* (Harvard University Press, Cambridge MA).

Latour B, 2005 *Reassembling the Social* (Oxford University Press, Oxford).

Latour B, Yaneva A, 2008 "Give me a Gun and I will make all Buildings Move" in *Explorations in Architecture: Teaching, Design, Research*, Ed. R. Geiser (Basel: Birkhäuser) 80-89

Latour B, Harman G, and Erdély P, 2011 *The Prince and The Wolf* (Zero books, Winchester)

Law J, 2002 "Objects and Spaces" *Theory, Culture and Society*, **19** 91–105

Law J, 2004 *After Method* (Routledge, London)

Law J, 2009 "Actor-network theory and material semiotics", in *The New Blackwell Companion to Social Theory* Ed Turner B (Blackwell, Oxford) 141–158

Law J, Mol A, 2001 "Situating Technoscience: an Inquiry into Spatialities" *Environment and Planning D, Society and Space* **19**, 609–621

Lee C, Jacoby S, 2011 "Typological Urbanism and the Idea of the City", *AD* **81** 14-23

Lefebvre H, 1991 *The Production of Space* (Blackwell, Oxford)

Lispector C, 1986 *The Foreign Legion* (Carcanet, Manchester)

Loukaitou-Sideris A, Ehrenfeucht R, 2009 *Sidewalks* (MIT Press, Cambridge MA)

Markus T, 1993 *Buildings and Power* (Routledge, London)

Marramao G, 2007 *Kairós* (Davies Group, Aurora)

Mol A, Law J, 1994 "Regions, networks and fluids: anemia and social topology" *Social Studies of Science*, **24** 641–671

Nietzsche F, 1967 *The Will to Power* (Random House, New York)

Nilsson E, 2010 *Arkitekturens kroppslighet/Stadens som terräng* (LTH, Lund)

Panerai P, Castex J, Depaule J P, Samuels I, 2004 *Urban Forms, The Death and Life of the Urban Block* (Architectural Press, Oxford)

Petrescu, D (Ed.) 2007 *Altering Practices, Feminist Politics and Poetics of Space*, (Routledge, London)

Pevsner N, 1976 *A History of Building Types* (Princeton University Press, New York)

Rapoport A, 1990 *The Meaning of the Built Environment, a Nonverbal Communication Approach* (Sage, Beverly Hills)

Rossi A, 1984. *The Architecture of the City* (MIT Press Cambridge MA)

Roth, M, 1981, "Foucault's 'History of the Present'" *History and Theory*, **20** 32-46

Sack R, 1986 *Human Territoriality* (Cambridge University Press: Cambridge)

Scheer B, 2010 *The Evolution of Urban Form* (American Planning Association, Chicago)

Serra J, 1996 *Urban Elements* (Gustavo Gilli, Barcelona)

Serres M, 1991 *Rome* (Stanford University Press, Stanford CA)

Söderström O, 2010 "Forms and flows in the contemporary transformations of the Palermo's city centre", in *Re-Shaping Cities* Eds Guggenheim M, Söderström O (Routledge, London) 189-210

Steadman P, 1982 *Architectural Morphology* (Pion, London)

Steadman P, 2008 *The Evolution of Designs* (Routledge, London)

Stengers I, 2011 *Thinking with Whitehead* (Harvard University Press, Cambridge MA)

Warnier J-P, 2007 *The Pot-King, The Body and Technologies of Power*, (Brill, Leiden)

Wharton A J, 2001 *Building the Cold War, Hilton International Hotels and Modern Architecture* (The University of Chicago Press, Chicago)

Wills H, 2003 "An innovative approach to reaching the non-learning public: the new Idea Stores in London" *The New Review of Libraries and Lifelong Learning* **4**107-120

Yaneva A, 2011 "From reflecting-in-action towards mapping of the real" in *Transdisciplinary Knowledge Production in Architecture and Urbanism*, Eds Doucet I, Janssens N, (Springer, Dordrecht) 117-128

Yaneva A, 2012 *Mapping Controversies in Architecture* (Ashgate, Farnham)