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Man-Made Mountains and Other Traces of a Fluctuating Market. An Anthropological View on Unintended Design

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Abstract
Though the financial crisis in 2008 did not hit as hard in Denmark as elsewhere, its imprints make visible how fluctuating market forces take an active part in the shaping of architecture and urban spaces. Recent theoretical developments in the field of architectural anthropology stress that architecture, rather than being a static entity, is a moving project in which numerous human and nonhuman actors continuously entangle. This paper builds on and advances such an approach by focussing on the vicissitudes of the market as an actor in the complex ecology of architectural design. The analysis is based on ethnographic fieldwork in what is here referred to as the place-making processes of new Danish residential architecture; that is, the ways in which architects, users, investors, branding strategies, building materials and financial fluctuations all interact in the continuous creation of places. The paper demonstrates how the contemporary architect designs places in interaction with the global market as much as in interaction with building sites and materials. Consequently, it introduces the concept of 'unintended design' in relation to architecture, and argues in favour of an architectural anthropology that studies place-making across the habitually distinguished phases of design and use.

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Introduction

Recently there has been an increasing anthropological interest in architecture and conversely an ethnographic turn has been suggested in architecture and design research (Putnam, Newton, in Engholm, 2011). The coming together of the two disciplines is fuelled by a renewed theoretical attention to the ways in which human and nonhuman actors intertwine and entangle. Anthropologist Albena Yaneva suggests to regard architecture as an 'ecology of practice' in order to "redefine the complicated forms of associations between its beings: habits, skills, buildings, sites, city regulations, designer's equipment, clients, institutions, models, images, urban visions and landscapes" (Yaneva, 2015, p. 239). Along these lines, a number of recent ethnographic studies have thus demonstrated how material devices and nonhuman actors like images and renderings (Houdart, 2008; Yaneva, 2015), drawings, models, sketches, software (Allen, 2014; Vålund, Georg, 2015; Hagen, 2015), skills and building materials (Marchand, 2012; Yaneva, 2012) take active part in the design process. Though some have also mentioned the influence of budget options (Latour, Yaneva, 2008) and changing economic situations (Hagen, 2015; Vålund, Georg, 2015), market forces have not yet been given as meticulous ethnographic attention as the seemingly more material actors involved in the practice of architectural design. This paper seeks to remedy this void by analysing how the financial crisis in 2008 intervened in the design of two Danish residential complexes and left significant traces in their material and social fabric. I trace how fluctuating market forces take part in the process of shaping the built environment, and relate this to philosopher and anthropologist Bruno Latour and his writings on the Anthropocene. I argue that as architecture and urban space must be considered on-going projects continuously in the making, rather than accomplished objects or artefacts (Yaneva, 2015), an anthropological approach to architecture should not necessarily limit itself to studying either the architects' process of design or the users' further transformation of built objects, but rather trace the social life of architecture including interlinks and associations across such phases.

Market forces have not yet been given as meticulous ethnographic attention as the seemingly more material actors involved in the practice of architectural design.

The empirical basis of the article is a period of ethnographic fieldwork conducted in January-August 2012

among residents, architects, planners, developers and real estate dealers in two new residential complexes in the Copenhagen region: The 8-House and the A-House. I retrospectively traced the place-making processes through qualitative interviews, participant observation and gathering of relevant documents, renderings etc. Furthermore, I took up residence for one month in a flat in the A-House and the 8-house respectively in order to conduct participant observation in the post occupancy place-making. The point of this was to approach architecture not as an entity that is finished once architects and construction workers leave the place, but rather as an on-going process that continues after people move in and interact with the building on an everyday basis.

The empirical basis of the article is a period of ethnographic fieldwork conducted in two new residential complexes in the Copenhagen region: The 8-House and the A-House.

Something stronger than the building workers

The 8-house was constructed in 2007-2010 on the southern outskirts of Copenhagen's new urban district, Ørestad. The complex consists of offices as well as 476 townhouses, flats and penthouses integrated in one – for a Danish context – giant building that seen from above forms the shape of the figure eight. A 1 km long pathway decorated with black and white tiles winds up along the glass and concrete facade making it possible to walk – or even bicycle – to the top of the building. From here one can enjoy the impressive view of the surrounding 2000 ha preserved flat green area of Amager Fælled. The building was designed by the internationally acclaimed Danish architecture firm BIG (Bjarke Ingels Group), and in the branding it was highlighted that besides all the amenities of a modern home, the flats included charming details such as crooked angles and varying floor-to-ceiling-heights. On various occasions, the architect has described the place as "a modern mountain village", and the metaphor was also used on the website, when the flats were sold:

The architect has described the place as "a modern mountain village".

> The pathway is planned as a natural meeting place for the residents of the house and as a safe thoroughfare for children visiting one another. As an extra bonus it creates a very charming way to move about within the building complex. Like living in a mountain village, where one moves in a rolling landscape and every now and then just has to stop to enjoy the tremendous views of all four corners of the world! (http://www.8tallet.dk – translation by the author)

During the month that I lived among the residents of the 8-House, I found that the notion of the mountain village had indeed received a life of its own among the residents.

But the metaphor of the mountain village does not just address the idea of a small-scale community where neighbours help each other; it also concerns its materiality and spatiality.

When I began my fieldwork, I was not particularly interested in the financial crisis, but rather in place-making processes among professionals as well as residents and other users: How does the various spheres of architecture, branding, construction and use interact in the continuous shaping of places? One of the reasons that I chose the 8-house as one of the locations for my fieldwork was my astonishment at how the paradoxical assembly of modern architecture and the storytelling about the premodern mountain village had come about: A giant new building complex made of concrete prefab building elements, yet dreaming of the charms of the crooked alleys of a mountain village! During the month that I lived among the residents of the 8-House, I found that the notion of the mountain village had indeed received a life of its own among the residents. Whereas a few of them had considered it to be but a crafty sales slogan to begin with, they were now themselves talking about the place as a mountain village. One resident even called himself 'the village smith' when he established a small repair shop in the basement and offered to do minor repair jobs for other residents. But the metaphor of the mountain village does not just address the idea of a small-scale community where neighbours help each other; it also concerns its materiality and spatiality, the fact that you can walk along the path to the top of the building and that kids can use this route when visiting their friends, but also that the complex consists of both shops and business facilities as well as many different types of flats and common spaces piled on top of each other. During my fieldwork, the residents of the 8-House would thus often amuse each other and the visiting ethnographer with anecdotes of the strange spaces one could find in the house. An odd-sized room had appeared facing the path and no one knew what its function was until the janitor suggested that it was perfect for storing the snow clearance machine. In one flat you'd have to bend down to access the balcony, as the size of the door fitted a child. Another had what one resident laughingly described as a built-in doghouse: a room with a floor-to-ceiling-height of only 1.5 meter. The residents find these surprising and apparently unplanned details charming though it is usually the neighbour's flat rather than their own that is considered to have the most irrational spaces.

The architect Bjarke Ingels explained in an interview that during the design process he and his fellow architects had twisted and squeezed the perimeter block originally outlined in the district plan, in order to provide as many flats as possible with views over the neighbouring vast green area of Amager Fælled. Seeing the peaks and shapes that resulted from this process had made him think of a mountain village in Spain, where he was once on vacation:

This village was located on the mountain slope, and here people had accommodated themselves to the surroundings as well as they could. This resulted in some very charming and strange spaces, where you suddenly had a big rock sticking out of the wall. They couldn't get rid of that, so instead they just painted it white. We have tried to create some of that same feeling in the 8-House. A mountain village with paths, stairways and bridges, with more quirky spatialities of a smaller scale. (...) In the mountain village there are no architects, people have made rooms for themselves, and sometimes the mountain is just stronger than the building workers. (Skype-interview with Bjarke Ingels, April 2012 – translation by the author)

The residents find these surprising and apparently unplanned details charming though it is usually the neighbour's flat rather than their own that is considered to have the most irrational spaces.

Though the 8-House is by no means "architecture without architects" (Rudofsky, 1965), according to Ingels as well the residents of the 8-House there is a certain charm connected with what we could call the *friction* of the space. Anthropologist Anna Tsing have used the concept of friction as a metaphorical image, reminding us that heterogeneous and unequal encounters lead to new arrangements of culture and power (Tsing, 2005, p. 5). She writes about the struggles of various actors in the Indonesian rainforest, but her concept is also highly appropriate for grasping the very interaction of various human and nonhuman actors in architectural design and place-making processes. She uses the road as a metaphor:

Roads create pathways that make motion easier and more efficient, but in doing so they limit where we go. The ease of travel they facilitate is also a structure of confinement. Friction inflects historical trajectories, enabling, excluding and particularizing. (ivi, p. 6)

Such simultaneous facilitating and enabling is also taking place in the process of shaping the 8-House. The building elements are put together to cater for various needs of building owners, residents, shopkeepers, investors etc., yet the place is not just shaped according to the various needs. It also offers some sort of material resistance, something "stronger than the building workers" as Ingels puts it. Denmark, and in particular the reclaimed land of Ørestad, has a very flat countryside, and the mountain-like shape of the 8-House thus has little to do with the topography of the place. Rather its massive volume derives from the pressure on the local housing market at the time. Whereas Danish developers would normally only start the construction process after having sold the majority of the flats, the housing market in Copenhagen just before the financial crisis was so heated that the developer of the 8-House was eager to build all of the massive complex before selling any of the flats. The particular financial climate of the time thereby became an actor in design by affecting the speed of construction, the building costs etc., but also by rendering it profitable to swiftly invest in an extraordinary housing complex like the 8-House. This however does not only illustrate the specific state of the market in a particular time and place, but also reflects how housing in Western societies – as also noted by Victor Buchli – is a financial instrument as much as a form of shelter (Buchli 2005).

The place is not just shaped according to the various needs. It also offers some sort of material resistance, something "stronger than the building workers".

The financial climate became an actor in design by affecting the speed of construction, the building costs etc., but also by rendering it profitable to swiftly invest in an extraordinary housing complex like the 8-House.

When I asked Bjarke Ingels if he thought it possible, in a Danish context with a flat countryside and a market-based building sector, to design the kind of friction or unplanned charm that derives from the rock sticking out of the wall he said:

> It is just a matter of who decides. We don't have a mountain, but we have neighbours, different functions and different needs: penthouses with a view, and town houses that require a lot of social contact, and offices that need deeper space than the flats. These are the things that decide the form. (Skype-interview with Bjarke Ingels, April 2012 – translation by the author)

What the architect is skilfully orchestrating in the process of design can thus also be understood as the varying requirements of planning regulations and

market demands. As stressed by Latour and Yaneva this is what we tend to forget when studying architecture as represented in the static 3D-CAD renderings of a project:

> Where do you place the angry clients and their sometimes conflicting demands? Where do you insert the legal and city planning constraints? Where do you locate the budgeting and the different budget options? Where do you put the logistics of the many successive trades? (Latour, Yaneva, 2008, p. 81)

In developing a complex like the 8-House, the architects work in close collaboration with developers and real estate agents in modelling the place: What is the market for housing and offices right now? Does the market request penthouses or family housing? How tall is the building allowed to be? And how low should our square meter price be to be competitive? Hence, the friction that legitimates the form derives from market forces and man-made regulations of these rather than just from topography or forces of nature. Though this kind of friction is not exactly considered to be as charming as that of the mountain slope, it can – as we shall see below – definitely sometimes be stronger than the building workers (Fig. 1).

Fig. 1 - The 8-House: A pathway winding up along the facade makes it possible to walk or even bicycle to the top of the building.

The A-House is a refurbished industrial building in the Copenhagen harbour area of Islands Brygge.

In 2006-2010, the house was refurbished and converted into 180 New York style loft apartments, by tearing down and replacing everything but the building's concrete skeleton.

And then the crisis came...
Financial turmoil might overpower all design efforts and force people and places to adapt – much like the villagers on the mountain slope, as described by Bjarke Ingels. As Carsten Holgaard, architect of my second case, the A-House, phrased it when I interviewed him:

As to the economy, that's a world with a lot of turbulence. Suddenly the bank went bankrupt, the owner changed, and we figured we just had to be very willing to adapt, to try to make the best of the situation, and get some quality into the place according to the situation. (Interview with Carsten Holgaard, March 2012 – translation by the author)

The A-House is a refurbished industrial building in the Copenhagen harbour area of Islands Brygge. When the developer purchased the building with the goal of turning it into exclusive loft apartments, the refurbishment process had to wait for a couple of years while the City of Copenhagen completed the district plan. In the meantime, the new building owner decided to sublet the worn-out building as ateliers for artists and creatives. This was done in order to act as a patron for the cultural life of the city, but also to provide the building with a history and creative aura, to hype the place and change most Copenhageners' view of this area as being on the outskirts of the city. Here and there, the artists had painted on concrete pillars and walls, and their traces and marks were preserved and integrated in the décor of some of the loft-style flats. In 2006-2010, the house was refurbished and converted into 180 New York style loft apartments, by tearing down and replacing everything but the building's concrete skeleton. This made the refurbishment very costly, as the preservation of the old industrial building structure precluded the use of standard building components – windowpanes and other components had to be designed specially for this place. The friction of the industrial and creative past inspired the architect though, and was also highlighted in the branding of the place, when the house was later turned into a complex of serviced apartments under the name STAY. The webpage of the STAY apartment hotel thus vividly described the material friction and traces of the past that one could still find in the house:

The former A-House was once a hub for Copenhagen's creative elite before being converted to the most recent urban hotel and serviced complex in CPH. This has been brought directly into the new STAY concept - from the architectural planning, to the many collaborations with local artists, who have left their mark on the apartments. The need for space has been woven into the design of every floor and the possibilities for the use of this space are many (...) The creative past of the A-House emanates from the countless artistic decorations that were never removed from the walls and ceilings. (http://staycopenhagen.dk/stay-informed/stay-then/)

Yet, another type of friction also had considerable impact on the shaping of the place. In 2008, in the middle of the refurbishment process, the market crashed, starting with the bankruptcy of large American investment banks, followed by bankruptcies and economic recession in the rest of the world, including Denmark. Realising that the market for high-end owner-occupied flats in Copenhagen had vanished overnight, the building owner, in close collaboration with the architect Carsten Holgaard, therefore decided to turn the house into serviced apartments. Inspired by places in New York and Berlin, they wanted to offer attractive, temporary homes for a cosmopolitan creative class. Though the ownership of the building switched hands in the meantime, this ambition was partly maintained, and today the side of the house that faces the waterfront has fancy furnished apartments and an exclusive lobby with a breakfast café.

In 2008, in the middle of the refurbishment process, the market crashed the building owner, in close collaboration with the architect Carsten Holgaard, therefore decided to turn the house into serviced apartments.

As it turned out, however, that the market for this type of high-end accommodation, even as rented flats, was no longer large enough to occupy the whole house, the backside of the house was rented out at cheaper rates and accommodates a much more diverse group. Here I met Indian software workers staying in Denmark on short-term contracts and various people in need of a temporary home. Some of them would complain to the reception about their apartments being unfinished. To them the building's rough look and traces of the industrial and artistic past did not connote creative New York style loft living, but rather just a poor finish. During

my fieldwork there, my neighbour turned out to be a war-veteran from Libya. He had lost his leg in the fights against Gadhafi and obtained a rehabilitation-stay organised by the Danish Aid Association. The house has thus become home to a very global crowd, though in a much different way than what was anticipated in the initial design phase. The building itself also bears the marks of the market turbulence that occurred along the way. The rooftop terrace had to be rebuilt during my fieldwork, as it was built too quickly and had caused moisture damage due to metal tracks carving holes in the felt roofing. According to the building contractor, construction work had been hurried up in order to get the building finished before the crisis worsened things. The construction work was therefore taking place simultaneously with – rather than after – the sketching, and several things had to be altered afterwards. The fact that the overall concept of the house was changed from private, owner occupied flats to a serviced complex rented out for temporary use and events also left traces in the materiality of the house. In the back wing of the building more walls were added in order to change the loft apartments into more standard flats with a broader appeal. On the top of the building, two penthouse flats overlooking the water were merged to form a large lounge used for events and photo sessions. Though high-end flats and spectacular New York lofts could no longer be sold, there was still a role for them to play as a backdrop in movies, TV shows and fashion shootings.

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In the 8-House the financial crisis was handled somewhat differently, as changing the concept was not an option here. Instead, construction work was speeded up, and cost reductions pushed through on building costs and materials, so the prices could be lowered. Almost all flats were constructed and sold in spite of the crisis, and according to the architect, Bjarke Ingels, this happened without compromising the main architectural idea – though that was at some point also about to happen:

There was a serious crisis because the world economy collapsed. At one point it was so severe that one of the building owners sold his part of the building for 1 DKK. So we really had to cut down. And things got so far that they considered leaving out the cross – the building consists of four wings

and a cross. They did leave out the tower, and that was easy enough, it was just a matter of not building it. But the cross is really essential. Instead we had to cut down on everything else... and for that matter I am happy that we did not let the whole quality of the house depend on some specific materials or little joints, but that the concept is mainstay though it is a dirt-cheap building. (Skype-interview with Bjarke Ingels, April 2012 – translation by the author)

In this case, some of the residents also suspect it to be a consequence of the crisis, when realizing that their ceilings were leaking water: "When the crisis came things were suddenly hurried up" they would say, or "due to the crisis the building was finished by cheep construction workers coming from all over". Whether talking to architects, residents or developers, again and again during the fieldwork, I would hear phrases like "and then the crisis came" or "due to the crisis". With these words, people point out all the things that differed from the plan, that which seems to be beyond control and impossible to design. According to them, it was due to the financial crisis, that the buildings were left unfinished, or with a different finish or function than intended. Though sometimes regarded as such, the financial climate is however not some abstract economic force that determines the course of architecture. Rather, the financial crisis here becomes a collective name for all the specific manifestations in construction costs, building materials, cheap labour and temporary contracts of the workers, which are all part of the ecology of architectural design. In the A-House the concept was thus changed but the building components and overall design kept with only small changes. In the 8-House, on the contrary, the concept was maintained, but costs were minimized where possible, also resulting in the use of other and cheaper materials than the original design. Yet, the changes that occurred after the financial crisis did not only manifest themselves in traces in the built environment, but also in their social fabric. The group of residents has thus turned out to be rather different from those initially planned for in the A-House, and as was the case in the 8-House and other places, some were tied to the place due to the expensive loans which makes it impossible for them to move today (Fig. 2).

The financial crisis here becomes a collective name for all the specific manifestations in construction costs, building materials, cheap labour and temporary contracts of the workers, which are all part of the ecology of architectural design.

Fig. 2 - The A-House: A refurbished industrial building in the Copenhagen harbour area turned it into exclusive loft apartments.

Anthropocene architecture and unintended design

In order to reflect theoretically on the role of market forces in the processes of architectural design, I now turn to Latour's writings on *the Anthropocene*. The concept was originally proposed by geologists to put a label on our present period, where man-made transformations of the Earth have reached an extent that makes it relevant to consider human beings a geological force, marking the end of the Holocene era. As the concept of Anthropocene fundamentally challenges all solid divisions between nature and society, it has been taken up by scholars from various disciplines, including Latour, who writes:

> We realise that the sublime has evaporated as soon as we are no longer taken as those puny humans overpowered by 'nature' but, on the contrary, as a collective giant that, in terms of terawatts, has scaled up so much that it has become the main geological force shaping the Earth. (Latour, 2011, p. 3)

Even if the architect and residents of the 8-House, by the notion of the mountain village, express a dream of being "overpowered by nature" to use Latour's words, what actually overpowers them is indeed man-made: regulations stipulated in the local plan that

are negotiated politically, but also the turmoil of the market which seems more or less beyond control. It is market forces that have – if not overpowered – then at least challenged and caused friction to – the shaping of places like the A-House and the 8-House. Latour's above argument forms part of his overall ambition of a break with the modernist notion of an outside space and the division between nature and society. Following Latour, the Anthropocene is the final proof that we cannot distinguish between man-made, human artefacts on the one hand, and the natural realm on the other: human beings shape the world literally and not just metaphorically (ibid.). Architecture was always, one could argue, a matter of human beings shaping their surroundings. However, the Anthropocene concerns the way we also shape the world unwillingly and the way man-made actions form the world in uncontrollable ways. This goes for the man-made climate changes but also – and this is especially where it becomes relevant for the cases described here – for the unintended consequences of our financial systems. Inspired by philosopher Peter Sloterdijk, Latour thus argues that the current crises – the ecological as well as the financial ones – demonstrate that the earth is now finally round:

It is market forces that have – if not overpowered – then at least challenged and caused friction to – the shaping of places like the A-House and the 8-House.

> Of course we knew that before, and yet the earth's rotundity was theoretical, geographical, at best aesthetic. Today it takes a new meaning because the consequences of our actions travel around the blue planet and come back to haunt us: It is not only Magellan's ship that is back but also our refuse, our toxic wastes and toxic loans, after several turns. (Latour. 2009, p. 144)

According to Latour, our loans can be as toxic as our refuse, as both leave very tangible traces in the world we inhabit. We are responsible for both, yet they shape the world in ways that now seem beyond control. This line of thinking throws a new and highly thought-provoking light on my field, where market forces are dealt with much like natural forces, that is, as something uncontrollable, which overpowers all attempts to shape our surroundings. The parallels are plenty, not only in construction, but also in mainstream media, where the market is subject to remarkable anthropomorphism when described as

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nervous, hysteric, shocked or even rolling its thumbs, much like the way hurricanes are given human names like Katrina or Andrew and described as having life, death, personality and temper. Natural disasters suddenly occur and leave houses and cities destroyed and devastated; financial crises suddenly occur and leave those new places deserted, that were designed to be filled with vibrant life. In the last part of the news on TV, meteorologists warn against the former and stock exchange experts against the latter, so that communities can take their precautions or people can just save themselves. By this comparison I do of course not mean to make light of the natural disasters that leave victims in emergencies much more severe than the material harms caused by financial crises. Neither do I mean to neglect the issues regarding the responsibility of certain actors in relation to the financial crisis. Rather, my point here is simply to put emphasis on the sense of uncontrollable power that is currently related to the market, at least in the part of the world that constitutes my field.

The architect in the age of the Anthropocene thus designs places in interaction with the global market as much as in interaction with local topography, traditions or building materials.

Following this perspective, the architect in the age of the Anthropocene thus designs places in interaction with the global market as much as in interaction with local topography, traditions or building materials (see also Yaneva, Zaera-Polo, 2015). Nevertheless, it is still, like the two cases above illustrate, the friction from topography and history that is highlighted in the storytelling and branding of this type of places. No one regards the friction from the crisis as either charming or a proper legitimation of architectural design. Rather, we start dreaming of being overpowered by nature, at the point where it becomes clear that in creating the places we inhabit, we do not just engage with the forces of nature but also with those of the man-made market – hence yesterday's friction seems to be today's charm (Stender, 2013, 2015). Latour observes the same, and according to him this nostalgia is a negative side effect of modernism:

Modernism has had the added consequence, even more dangerous at the present juncture, of identifying the taste for habitation with the past, with the innocent, with the natural, with the untrampled, so that just at the moment when what

is needed is a theory of the artificial construction, maintenance and development of carefully designed space, we are being drawn back to another utopia – a reactionary one this time – of a mythical past in which nature and society lived happily together ('in equilibrium' as they say, in 'small face-to-face communities' without any need for artificial design). (Latour, 2009, p. 144)

The idyllic image of a small-scale village community where cultivating the land makes people closer to each other and to the place can be recognised in the 8-House and many other contemporary complexes. Interestingly, the metaphor is actualised in new and unforeseen ways, when people are in fact tied to the place and each other due to expensive loans and fluctuating markets. Even the metaphor of the mountain, as Ingels notes, turned out to be more precise than intended, as the buildings surrounding the 8-House remained on the drawing board:

The idea with the mountain path was that you could stroll to the top and enjoy the view (...). But it turned out even more extreme than planned, because the surrounding city failed to appear. In the sketches, the 8-House was surrounded on all sides, but the economy collapsed and the rest of the city stalled, so it stands alone like a fragment. (Skype-interview with Bjarke Ingels, April 2012 – translation by the author)

One could argue that such paradoxical realization of the storytelling used for place-branding is mere coincidence and not a matter of design. But as shown through the two cases described here, architects do not just design buildings; they also design stories, concepts, images and processes, just like many actors other than the architects are involved in shaping buildings. My examples above could therefore be seen as what Tsing calls 'unintended design'. She launches this interesting oxymoron in connection with her studies of how different species – mushrooms and people – in the Japanese forest create worlds for themselves and each other: "One might call the relations that grow up together in the Satoyama Forest a kind of multispecies design, but an unintended design" (Tsing, 2014, p. 36), she writes. As demonstrated in various ethnographies of architectural design, the unintended is always inherent to design processes due

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to its unpredictable and multifactorial nature (see e.g. Houdart, 2008; Hagen, 2015; Yaneva, 2012; Allen, 2014; Vålund and Georg, 2015). The contribution of Tsing's concept of unintended design is to regard as design certain processes in spheres that we would normally not see as such, hence multispecies interaction, ecological and financial climate changes. The concept of unintended design is thus highly relevant also in relation to architectural design in the Anthropocene, where man-made climate changes, Libyan wars and bankruptcies of American investment banks all take part in the shaping of Danish residential complexes. The point is of course that all this is not just to be regarded as something outside architecture, but rather as part and parcel of the social and material realities that architects orchestrate. Neither the forces of nature nor those of the market are abstract forces outside the remit of architecture. On the contrary, they manifest themselves in very tangible processes that all together affect the world of architecture and the overall ecology of design and dwelling. Architecture – or rather the architectural – is thus, in Yanevas words 'a type of connector', a manner of doing, of dealing with and connecting all these actors, rather than an object in itself (Yaneva, 2012, p. 108). She builds on and advances Jeremy Till's (2009) point that architecture is a dependent discipline:

The concept of unintended design is thus highly relevant also in relation to architectural design in the Anthropocene, where man-made climate changes, Libyan wars and bankruptcies of American investment banks all take part in the shaping of Danish residential complexes.

> Architecture is defined by its very contingency, by its very uncertainty in the face of these outside forces (Till, 2009, p. 1). Moreover, the architectural process is open to events and unforeseen circumstances; design invention follows uncertain and unpredictable paths. (Yaneva, 2012, p. 105)

The 8-House and the A-House obviously illustrate this point, but further they prompt us to also focus on the elements of unintended design that characterizes architecture in the Anthropocene. A key contribution of architectural anthropology is thus to scrutinize the social life of architecture, not as accomplished objects or artefacts, but as on-going projects continuously in the making (Yaneva, 2016) shaped through intended as well as unintended design. This may pave the way for *both* continuous critical analysis of the processes through which architecture is connecting – and created between – different actors and insight in what architecture actually does, once built and put to use (Stender,

2016a). I would therefore suggest that anthropological approaches to architecture should not necessarily limit themselves to studying either the architects' process of design or the users' further transformation of the built place. As this paper has demonstrated, tracing links between the normally distinguished phases of design, construction and post-occupancy use may help us grasp the social life of architecture and how architectural skills, market forces, building components, branding strategies and residential practices all come together in the making of places.

Conclusion: on the social life of architecture

This article has sought to broaden the understanding of the ecology of architectural practice by showing how the market forces – alongside with natural forces and other actors – are all at place and activate new agencies, new actors and new connections. Based on fieldwork in the place-making processes of two new Danish residential complexes – the 8-House and the A-House – I have thus ethnographically traced the different factors in architectural design while pinpointing for the first time the importance of market agents and economic processes and practices and their specific manifestations in design and use. Through particular manifestations in construction industry, material costs and labour, the financial crisis in 2008 became a key actor in the shaping of the two places and left significant traces in both their material and social fabric. The market is a co-creator of places from the initial design phase, yet its fluctuations may overpower even powerful building owners and skilled architects, and force them to adapt. The crisis was thus dealt with much like an outside uncontrollable power, which bears a resemblance to the forces of nature. Inspired by Latours writings on the Anthropocene, I have therefore argued that in contemporary architecture the market forces – alongside with topography and natural forces – are part of the complex ecology of architectural projects in that they give friction to the shaping of the built environment. It is not just the 8-House that takes the shape of a manmade mountain; even topography and natural forces are – in the age of the Anthropocene – largely shaped by human beings. At the same time, however, current architectural design and branding of places paradoxically seem to bear witness to a longing for the kind of friction that derives from topography, history or un-designed

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small-scale communities, as inherent in the notion of 'the mountain village'. Yesterday's friction thus seems to be today's charm, as a nostalgia for this kind of friction emerges at the time where a rather different kind of market-related friction takes active part in shaping the places we inhabit. Whereas places are thus designed with notions of 'a global crowd' or ' a locally entrenched community' at sight, these visions might – due to the turbulence of the market – in fact be realised, but in ways very different from what was originally anticipated. I have therefore suggested including in the studies of architecture the concept of unintended design, reminding us of the ways that human and nonhuman actors create worlds for themselves and each other. To study the social life of architecture is to study how architecture takes part in this world-creation – or as I have called it place-making. Architectural anthropology may contribute to such insight by exploring these processes and by tracing links across phases and actors. As demonstrated in this article, we need to look at architecture throughout both design, construction and post-occupancy dwelling, and also include both natural and market agencies in order to comprehensively approach the full complexity of the ecology of design practice.

References

Allen, S. (2014), *An award controversy: Anthropology, architecture, and the robustness of knowledge*, "Journal of Material Culture", 2 (19), pp. 169-184.

Buchli, V. (2006), *Architecture & Modernism*, in *Handbook of Material Culture*, London, Sage, pp. 254-266.

Engholm, I. (2011), *Design theory – Positions in contemporary design research. An attempt at categorisation*, "Journal of Design Research", 2 (11), pp. 48-63.

Hagen, A.L. (2015), *'Calling it a crisis': Modes of creative labour and magic in an elite architect company*, "Journal of Business Anthropology", 4 (2), pp. 201-208.

Houdart, S. (2008), *Copying, cutting and pasting social spheres: Computer designers' participation in architectural projects*, "Science Studies: An Interdisciplinary Journal of Science and Technology", 21 (1), pp. 47-64.

Latour, B. (2009), *Spheres and networks: Two ways to reinterpret globalization*, "Harvard Design Magazine", 30, pp. 138-144.

Latour, B. (2011), *Waiting for Gaia. Composing the common world through arts and politics.* A lecture at the French Institute, London, November 2011, for the launching of SPEAP

(the Sciences Po program in arts & politics), http://www.bruno-latour.fr/node/446; accessed on 03 January 2018.

Latour, B., Yaneva, A. (2008), *Give me a gun and I will make all buildings move: An ANTs view of architecture*, in Geiser, R. (ed.), *Explorations in Architecture*, Basel-Boston-Berlin, Birkhäuser.

Marchand, T. (2012), *Minaret Building and Apprenticeship in Yemen*, Oxon - New York, Routledge.

Rudofsky, B. (1965), A*rchitecture Without Architects: A Short Introduction to Non-Pedigreed Architecture*, New York, The Museum of Modern Art.

Stender, M. (2016a), *Towards an Architectural Anthropology – What Architects can Learn from Anthropology and vice versa*, "Architectural Theory Review", 21 (1), pp. 27-43, DOI: 10.1080/13264826.2016.1256333.

Stender, M. (2016b), *Menneskeskabte bjerge og markedskræfternes rasen: En etnografisk undersøgelse af arkitektur og stedskabelse i antropocæn tid*, "Periskop Forum for kunsthistorisk debat", n. 16, pp. 72-90.

Stender, M. (2013), *Designed places: An ethnography of the financial crisis*, paper presented at Interdisciplinary.net 4th Global Conference, "Space & Place. Exploring Critical Issues", Mansfield College, Oxford, September 2013.

Till, J. (2009), *Architecture Depends,* Cambridge, MIT Press.

Tsing, A. (2014), *More-than-human-sociality. A call for critical description*, in Hastrup, K. (ed.), *Anthropology and Nature*, Oxon - New York, Routledge.

Tsing, A. (2005), *Friction. An Ethnography of Global Connection*, Princeton-Oxford, Princeton University Press.

Vålund, M.S., Georg, S. (2015), *Designing a counter: The constitutive entanglement of the social and the material in architectural design*, in Müller, A., Reichmann, W. (eds), *Architecture, Materiality and Society. Connecting Sociology of Architecture with Science and Technology Studies,* Basingstoke, Palgrave Macmillan, pp. 24-47.

Yaneva, A. (2016), *Politics of architectural imaging. Four ways of assembling a city*, in Bille, M., Sørensen, T. (eds), *Elements of Architecture. Assembling archaeology, atmosphere and the performance of building spaces*, London, Routledge, pp. 238-255.

Yaneva, A., Zaera-Polo, A. (eds), (2015), *What Is Cosmopolitical Design? Design, Nature and the Built Environment*, Oxon - New York, Routledge.