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The Potentials of Ecological Urbanism in a Danish Planning Context

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Since late 1990's, the discourse on *landscape urbanism* has emerged. The landscape architects James Corner and Charles Waldheim have been among the most prominent advocates for a landscape-approach to designing and developing urban areas. Within the paradigm of *landscape urbanism*, landscape architecture is seen as the catalyst for a processual urban development that encompasses a multitude of urban programs. Recently an new off-spring of this '-ism' called *ecological urbanism*, tries to further incorporate knowledge of human-landscape-interaction into the realm of a processual urbanism.

This paper seeks to search for potentials in integrated planning in the ecological- and landscape-based urbanism concepts by studying the etymology of *ecological urbanism*, recent developments in the Danish planning-system as well as case-studies of two recent projects to illustrate the points. This is done in order to further qualify the conceptual framework of theoretical urbanism and its application in practical urban- and landscape-planning with an emphasis on the Danish context.

Landscape-based urbanities and rise of the '-isms'

Landscape Urbanism as a paradigm in urban studies has its origin in James Corners concepts of 'landscape as urbanism' (Corner, 1999; Bach, 2007). Corner had an ambition to introduce landscape architecture as a key driver in urbanism - as an architectural and processual framework that precedes even urban design in creation of the urban environment. Corner was spurred by an apparent lack of interest from architects towards landscape architecture as well as landscape architects that also had part of the responsibility of transforming landscape architecture an unambitious profession. He was especially inspired by the Parc de la Villette competition from 1982 with a special emphasis on Bernard Tschumi's and OMA/Rem Koolhaas' 1st and 2nd price entries. These entries represented a break with stilistic post-modernism (neo-rationalism) and brings forth a new emphasis on function-centered programming - where a pragmatic form-language stems more directly from the design of the program.

In *landscape urbanism,* the landscape project is used, and this is the key concept, as to organize and facilitate the program instead of being what is left behind after 'architecture happens'. One might say that this shift corresponds with the shift in post-modern philosophy and social theory in 70s and 80s; a shift towards the fluid and indefinite as opposed to the objective and predictable (ie. the linguistic turn) Thomas Sieverts has, among others within the *Zwischenstadt* research-programme (Sieverts, 2007; Wall et al., 2005) advocated for a change in planning paradigms - a shift from what he calls an *impossible order* to a *possible disorder.* A change that corresponds well with a revised post-modern urban planning paradigm. By accepting that there is a wide array of properties that cannot be controlled in detail, a new focus on the

process and the interconnection of layered spatial and functional properties emerges. This is, intended or unintended, effectively a reterritorialization of landscape ecologist Ian McHargs method from his groundbreaking *Design with Nature* into the urban realm (McHarg, 1992[1967]). In the *Zwischenstadt*-view, it does not make any sense to keep holding on to a city-countryside dichotomy in a society dominated by automobility and the spatial consequences of ever increasing mobility. This move away from the dichotomy directs the attention towards landscape architecture and -planning and their role in urban planning. Zwischenstadt and landscape urbanism complement each other in the sense, that landscape urbanism has its main focus on performative and processual urban landscapes and Zwischenstadt has its main emphasis on settlement and its relation with overlapping landscape-themes. (Wall *et al.*, 2005; Sieverts 2003) Recently though, a new '-ism' is lurking that aims to fill the gap with an explicit sustainable & ecological dimension. The massive 2010 publication 'Ecological Urbanism' that followed a large conference on Harvard Graduate School of Design, can be seen as a symptom on an increased interest in sustainable cities with emphasis on ecological processes.

> *As a critique of the landscape urbanist agenda, ecological urbanism promises to render that dated discourse more specific to ecological, economic and social conditions of the contemporary city* (Waldheim, 2010b, p.114)

In a recent edition of the landscape & urban design journal Topos, Waldheim elaborated further on the emerging concept of *ecological urbanism*:

> *This most recent adjectival modifier of urbanism reveals the ongoing need for re-qualifying urban design as it attempts to describe the environmental, economic and social conditions of the contemporary city. Equally, it acknowledges that the now well-established discourse around landscape urbanism is ripe for middle-aged reasonableness, a midlife crisis, or both* (Waldheim, 2010c, p. 21)

Whether or not this new concept of *ecological urbanism* will spawn as a new -ism or if it will be re-integrated as an element in the *landscape urbanism-paradigm* is yet to be shown. One thing is sure though - a landscape-based focused alternative to *urban design-classic* is still alive, under development, and has a growing importance in the academic urbanism-discourse on both side of the Atlantic.

Danish legislation-context - a brief history
the triple-legislation-system & emerging institutionalized conflict
The Danish spatial planning-system consists of three major acts - the Planning Act, the Nature-preservation Act and the Environmental-protection Act. The three-law-system was established through a number of revisions from the 70s through to the early 90s where the last law-elements were combined. City-planning and -development is mainly placed within the Planning Act while landscape-planning is divided between the Planning Act and the Nature-preservation Act. At the institutional level of the system from early 70s until 2007, city-

planning was mainly placed at the local-municipality-level while the nature- & landscape-planning was placed at the regional level. Inherent in the institutional structure was thus an intended conflict set-up between city- and open-land planning. A system created to keep the local municipalities in check, and to keep the cities away from the landscape and farmland not the least.
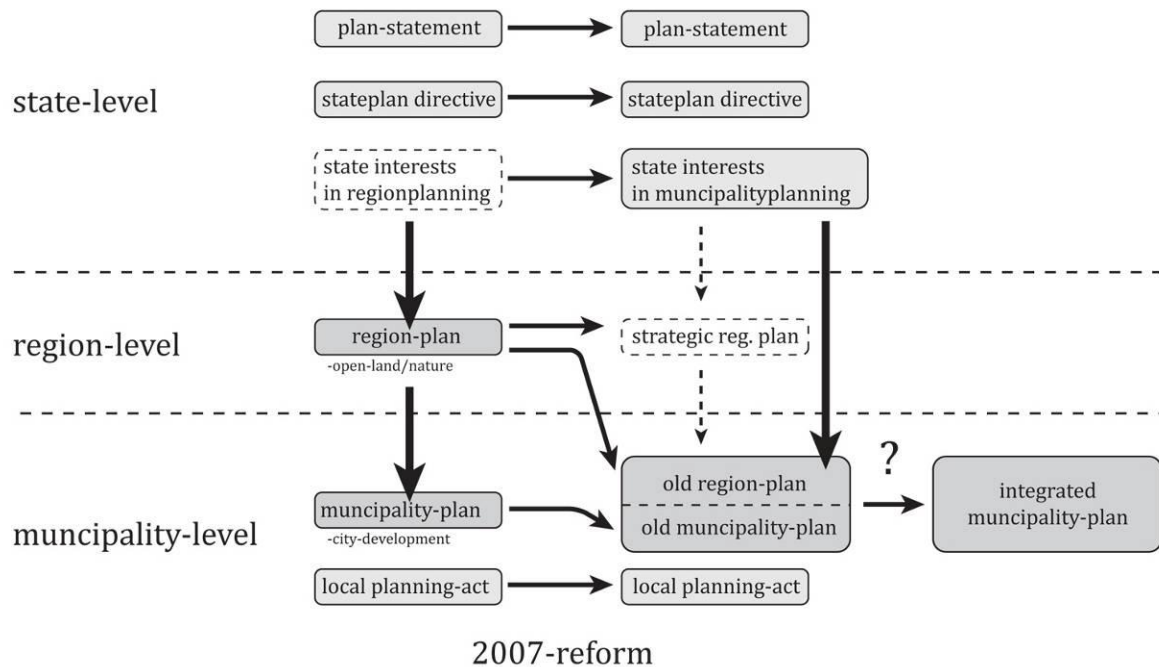
rough outline of the danish planning-reform

The 2007-reform & institutionalized schizophrenia
The triple-system is still the backbone of Danish spatial planning, but with the 2007 municipal-reform, there was a major change at the institutional level and a reordering of the role of the mandatory planning-documents. Before 2007 there was a clear distinction between city-planning, conducted by the local municipalities, and landscape-/nature planning, the responsibility of the regions. In the 2007-reform the regional level disappeared as the local municipalities got 2-3 times larger, and the municipality-level acts were extended to incorporate the regional-level landscape-/nature planning. This new integrated municipal-level planning is where things start to get interesting from an *ecological urbanism* point of view. In the pre-2007-situation, the local municipalities were held in check by the regions, and the city-land dichotomy was rooted in planning-document on different scales *as well as* institutions[1]. After 2007 this conflict-system disappeared as the larger local municipalities are now expected to initiate a more integrated city-open-land planning.

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[1] The regional-level planning-act were rooted in the 'amt' (county) and the city-scale planning-acts in the 'kommune' (municipality)

The first generation of the new 'unified' municipality-level planning-acts seems to only have been a matter of combining the regional *into* the municipality-level - not *re*-combining it. A key-planner in the Ministry of the Environment has stated, that the municipality-plans turned out more rigid than what they were aiming for after the 2007 reform. Municipalities had to find their way in a new planning-environment and a completely new organizational setup, and the ministry was nervous that decades of planning know-how could potentially be lost. This led to a cross-pressure of institutionalized safe-guards and thus - no real innovation[2]. The second generation that will be outlined in the so-called *preliminary plan-intentions*[3] due 2011 and the *municipality-level-plans* themselves that are due 2013, will undoubtedly lead to a more integrated approach as the municipalities grow accustomed to their new playing field internally and externally, and the ministry (who are supervising the municipality-level planning-documents) find out that the outcome of first generation didn't quite meet *their* expectations of a new planning-type. Pre-2007 the regions made a virtue out of developing their planning. If the ministry is interested in seeing the same development now, it will undoubtedly happen.

So how does this relate to the discourse of landscape-/ecological urbanism. Well first of all there is the obvious point, that the municipalities now have the planning-right and -duty of their entire territory. One should not underestimate the difficulty of coordinating initiatives and innovation across physically separated institutions with difficult planning cultures. This separation is now gone. Secondly - there's an obvious synergy potential in combining city- and nature planning. Municipalities have the statutory authority through the Planning Act, to plan for ecological-connections[4] (the planning-act §11a (13)) as well as 'landscape[5] values' (ibid. §11a (15)). If this statutory authority can be combined within the municipality-plan and subsequently converted into proactive elements of local-act housing-planning, which the municipalities *also* govern, a new playing field is opening up. I would argue the there lies a significant potential in a new crossing of landscape- & ecological planning tools and the housing planning seen from an *ecological urbanism* point of view. A potential that can now be realized given the organizational structure and reformed municipal planning-documents.

The cases of reactive-ecology vs. proactive-ecology
One might argue that it is difficult to operate with reference-projects in relation to LU, since it is more of a processual-design-approach. The classic modes of representation, plans, sections. perspectives etc. make the projects 'freeze in time' and thus makes representation within LU a tricky business. The reference projects are most clear when they are diagrammatic, processual and visualized with scenarios and developing growth schemes. Specific projects & funding are usually bound to a specific site defined by the legal concept of *private property*, and it

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[2] These views are based on talks with planners at both muncipalitiy- and ministry-level

[3] 'Plan-strategi' -> 'Kommuneplan'

[4] in the meaning of mediums for spreading of animals and plants

[5] in the meaning of 'landscape-image'

seems that the representation combined with private prosperity, makes LU more easily presented and *re*presented as a planning approach and a way of thinking, than it is as a design approach. In lieu of these difficulties I choose to present my two cases with regards to 'what they do' rather than their formal layout.

To illustrate the different approaches I would like to bring forth two different examples that each represent different stances of *ecological urbanism,* given Waldheims earlier definitions (p.2 in this paper). They can also be used to illustrate two different views of spatial planning governance. The first case is a housing area at Gyngemosen in Copenhagen, and the second a housing area in Holstebro called Sletten. Both cases are built in the mid 2000's (05-08) and they are both situated next to significant ecological corridors.

Gyngemosen - reactive/passive ecological urbanism - classic dichotomy&confrontation
When the Danish Broadcast Corporation had to move to new headquarters, the old area was ready for transformation into a housing area. When the developers and landscape architects were laying out a new housing scheme, the local municipality found specimens of the moor-frog. This specific species is on several preservation lists, so the preliminary landscape project had to be adjusted in order to preserve this lovely little creature. The outcome of the housing project was, that the frog got a larger habitat than it ever had, and thus the project led to a richer nature all in all. Another consequence of the 'moor-frog incident' is, that it brings a distinct modification to this housing area - building on the specific ecological properties. It leads to a different aesthetic, showcases *some sort* of co-habitation and reflects back to the housing with a modified identity. The project is *ecological urbanism* to the degree that there is a net gain from the frogs point of view - housing leads to better conditions for the frog. This is however what I would call a *reactive* or *passive ecological urbanism.* The housing project was only adjusted after the

inside the housing area of Gyngemosen

frog was discovered, and the landscape project changed only to give space to natural

processes in a very defined space, not to let inhabitants interact and actively interact with the habitat. Human-nature processes are only interrelated in the initial building process, and does not create a sustainable human-nature ecology as such.

Sletten - proactive - multi-level ecology
The other example I would like to draw out is the Sletten project from Holstebro. The case of Sletten has been thoroughly dissected in Stefan Boris' recent ph.d.-dissertation (Boris, 2010) and the pictures are from the dissertation. Sletten was built as a housing project with special focus on human-landscape-interaction. Different planting schemes are integrated with the housing area, and the house-owners are free to appropriate the forests - planting, trimming clearing etc. is thus permitted in a self-regulating governance-setup. What is interesting in the Sletten project is, that it seems to work well to motivate the inhabitants appropriative behavior. People are re-constructing their near-landscapes, and the use and appearance of their environment changes over time because of this. People are making small clearings and plantations thus leading to a more finely grained landscape with larger diversity and thereby also a larger degree of human-nature ecology. More differentiations in planting and clearing leads to more diverse types of nature. (Turner, M.G. et al. (2001) p.222) All in all, Sletten is conceived as an appropriation scheme, but in its use it functions as a human-induced ecology under constant change - it becomes a co-habitation-scheme, where humans are actively creating, curating and renewing biological habitats, by giving specific advantages to inhabitants in terms of appropriation.

an example of one of the common forest areas surrounding the Sletten housing area

The cases and the planning system

As a parallel to these two cases, we have the two different mindsets of the pre-, and post-2007 planning acts. The new planning-system gives way for an integrated planning-approach where specific nature-quality-goals and landscape-intentions[6] can be united. I would argue that the case of Gyngemosen can be seen as an image of the pre-2007 planning-system. Even though the nature-habitat is spatially located inside the housing area, it is at the same time segregated from it. Housing and nature are thought as opposing entities. The inhabitants are not interacting with the biotope, and it functions more as an atmosphere- and identity-element for the housing area. Granted, the habitat as such may now be in a better condition that at the time of building, but it is at the same time not developing since it is "frozen in time", locked in the spatial frame of the housing area. Gyngemosen becomes a 'finished' project. Sletten, on the other hand, possesses some more processual properties that can be seen as an image of a possible future in the post-2007 planning paradigm. Here housing is combined with landscape as a medium of inhabitant-appropriation. These user-based landscape-interventions has shown to create a diversity of planting-schemes and thus bio-mass densities and sun-shadow differences. This diversity in scale and densities in plant material and change over time, I would argue, can be called an *ecological urbanism* in the Waldheimian sense of the comcept, as it brings together '*ecological, economic and social conditions*' in a processual open-ended scheme. In a planning system with a unified municipality-act across city and country, this can be seen as a text-book example. Even though the layout of the housing in itself is not especially interesting, it is the orchestration of social-integration and human-landscape interactions that can be used as a catalyst and inspiration in holistic planning. City-planning becomes nature-planning and vice versa. There is a statuary authority to do both - why not at the same time?

Choosing to illustrate planning-views and the role of a municipality-level plans by cases at a project scale could be seen as a scale-incompatibility. The municipality-plan, however, always relates to the project-level as it is a prerequisite to it, and because the municipality-plan has different layers of political-policy content that works across scales. In this paper I have not discussed the particular layout of the housing- and landscape scheme but rather discussed the projects' *properties* and thus relating the projects to the spatial-policy level. This, I believe, is key to understanding how *ecological urbanism* can influence planning. In my view, urban planning has been disconnected from the design level, but reconnecting the two by highlighting the specific properties of the project, and by distilling their planning-content, urban planning can re-focus its spatial policies from an on-the-ground perspective that is so essential for planning to become relevant for the end-user.

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[6] *landscape* in Danish planning-context is to be understood differently according to the different types of acts. In the Planning-Act *landscape* is to be understood at landscape-image, while it in the Nature preservation-Act holds a double meaning as both landscape-image and ecological property signifier.

Conclusion

In this paper I have explained how *landscape urbanism* as a paradigm seems to be under revision with the recent discourse on *ecological urbanism* as its newest modifier. The processual and program-oriented approach from *landscape urbanism* is adopting elements of sustainable settlement. Parallel to this, the *Zwischenstadt*-approach is advocating for an urbanism that looks beyond city-open-land dichotomy and thus combining leisure, cultivation, topography, nature and habitation in new constellations. Both stands are fruitful in trying to understand future potentials in combining landscape- and city-planning since they both focus on interdisciplinary approaches in solving ecological and habitational issues.

On the other side you have practice. The Danish planning system has, and still is, undergoing the changes started by the 2007 reform. Municipality structure is being streamlined organizational as well as planning-wise. The previous planning responsibilities of the regions have been assigned to the new larger municipalities and thus paving the way for a planning that views the municipality's territory as a whole. The 2nd edition of the new planning-documents are due 2013 and the work on them will start next year, and with the experiences gained from the 1st edition, it is fair to say that the aim from both municipality and ministry now is to re-think and recombine the elements of the municipality-plan. To illustrate this transition and the potentials that lie in it, I highlighted two cases with different views on ecology. They can be seen as illustrations of a *segregated* settlement-nature view respectively *integrated* settlement-nature view. Gyngemosen illustrates how a landscape project can be *re*active and thus dividing housing- and nature interests, even though they are spatially linked together. The conflict setup inherited from the institutionalized split between regions and muncipalities lives on all the way down to the project-scale. Sletten onthe other hand, shows how a motivational scheme based on self-governance of forest-areas can lead to a new spatial diversity which then again leads to a larger biodiversity.

So how can this be implemented? The key objective in order to implement an integrated planning as outlined above starts at one place - the municipalities. It is however also crucial to make the municipalities aware of the potentials that lie within the new planning. I have no doubt that they want to search for a *smarter* way to do planning, as the current planning system inherited from pre-2007 system has shown to be increasingly heavy on man-hours and scarce on innovation. Landscape-/ Ecological urbanists can showcase thousands of interesting and groundbreaking projects, as they should, but without the backing from the municipalities and the interest in transferring knowledge from academia to practice, this will take much longer than necessary.

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