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Features and Consequences of Flat Ontology in Expanded Urban Planning

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Abstract: This paper seeks to pinpoint the consequences of the core principles of flat ontology for so-called expanded urban planning, on the basis of four case studies at the local level in the Nordic countries. However, these not only represent the local realms, as they are embedded in glocal networks. Urban development takes place in them through different forms of self-organisation, primarily outside the formal planning processes and official institutions, varying in terms of temporality and stages of emergence. We argue that expanded urban planning, which is based on pluralist realism, opens up methodological opportunities for a more agile and responsive planning system, potentially leading to more inclusive urban development.

The comparative analyses indicate that the application of flat ontology comprises an expansion of the extent of planning, the importance of temporal dynamics in all stages of planning, the adoption of a variety of digital and non-digital methods and tools, as well as skilful deliberation of complex relations between assemblages. Thus, flat ontology should be called fat, as it makes the conceptualisation of planning manifold and deliberative instead of linear and hierarchical.

Introduction

The focus of the re-conceptualisation of urban planning tends to be on the self-organised actions and the variety of actors in their realms subject to the emergence of complex and volatile society. Jean Hillier (2011) has approached the issue by claiming that, as planning and its implementation are impacted by power relations, socio-cultural and economic conditions, it is necessary to begin by mapping the context, or as de Roo (2018) would say 'the contingent and adaptive transformative conditions'. Hillier (ibid) presents a multi-planar theorisation in which strategic planning means opening opportunities with long term planning, whereas short term planning guides operational planning.

In this article, we seek to pinpoint a few multi-planar phenomena and their consequences for urban planning on the basis of case studies on the local level in the Nordic countries. In these case studies, urban development takes place through self-organisation, mainly outside the formal planning processes and official institutions, varying in terms of temporality and stages of emergence (de Roo, Zhang 2019). The kaleidoscope of urban development[1] is not only thick in terms of actors and their actions, it is also multidimensional and evolving in different time spans.

In the Finnish planning system, the main task of the planner is to produce spatial policies and implement them through statutory planning. The statutory planning process, and the anticipated spatial order, do not recognise local initiatives and actions that take place in urban space. Master plans as well as local detailed plans are laden with numbers and regulations; the number of floors and square metres to be built, the type of buildings etc. However, when it comes to the purpose of the plan – even if the purpose is for public use – it will require active local realisers, including enterprises and NGOs, their architects and designers to make a building plan. During this process, the outcome of the same detailed plan might turn into a music school, a day-care centre, or a social service point for drug users. The agency and actions of real-life actors will define the outcome of urban planning; that is, the actual establishment and constitution of space. In addition to the local realisers, there is also a thick layer of other actors and stakeholders, who do not have enough resources and capacity to take part in self-organised actions in urban planning, but they make a difference in urban development. Thus, urban space is maintained, but also altered by their actions, some of which are decisively targeted, others merely a mundane outcome of their everyday life (Lydon, Garcia 2015; Wallin 2019).

The actor-related approach to urban planning emphasises that the current planning system fails to address the emergent development drivers that transform urban space and impact the implementation of the plans (Boonstra, Boelens 2011). This has often been interpreted as a failure of the participatory processes in planning. However, the shortcomings lie in the deeper conception of the planning system. The

problem is both ontological and epistemological, as urban development is not only about the business of real estate developers and construction companies or the linear top-down and bottom-up procedures. The magic happens in self-organised urban actions, especially in the contemporary use of space and community development initiatives, which do not recognise and follow urban planning policies and procedures, but certainly have an impact on them. Thus, there is a need for urban planning that is integrated with actions leading to urban development, and which acknowledges the plural and volatile nature of space and society.

We will explore in this article an ontological and epistemic expansion of urban planning, which does not primarily address real estate development, but seeks to cover a larger kaleidoscope of urban actions and actors. How does this form of "expanded urban planning" (Horelli 2013a; Wallin 2019) represent the idea of flat ontology, and what are its consequences for urban planning and development?

We have defined from the literature (Deleuze, Guttari 1981; Niiniluoto 2002; Boelens, de Roo 2016), and the framework by Tim Devos and Luc Boelens for this special issue of DISP, four core features of flat ontology for urban planning. The adoption of the features imply:

1) *an ontological engagement of pluralist realism without borders*, meaning that planning should expand from focusing on statutory spatial planning to also cover community development, including self-organisation, self-governance and co-governance (Niiniluoto 2002).

2) *a temporal dynamism of becoming* (emergence and self-organisation), meaning that participation and self-organisation can flexibly take place in all stages ranging from strategic planning, via 'statutory planning', implementation, co-production of space and evaluation. This also includes the recognition of the phenomena of temporary urbanism (Horelli 2013b; Bishop, Williams 2012).

3) *an epistemological resistance towards homogeneous reduction*, meaning that planning requires the application of multiple methods, as well as digital and non-digital enabling tools (Horelli 2002; Springett 2015).

4) *the importance of the connections and relationships among specific types of entities*, not the entities themselves, meaning that constantly occurring new groupings (assemblages) and also the issue of hybrid or co-governance becomes prominent (Mäenpää, Faehnle 2017).

The aim of the article is to present the features manifested in four Nordic examples of expanded urban planning. They range from local urban activism, based on social media *(More Urbanity to the City Group)*, via self-organised e-planning (*Borderland* collaborative event-making platforms), a co-housing initiative with transforming housing models (*Dyssekilde* eco-cohousing village) to the methodological living lab on situational sense-making in urban planning *(Aalto Built Environment Lab, ABE)*. We argue that expanded urban planning, which is based on pluralist realism, opens up methodological opportunities for a more agile and responsive planning system, potentially leading to more inclusive urban development.

We will first describe our framework and methodology and then proceed to the case studies and their results, which will be discussed in the final section with conclusions.

Expanded urban planning as a theoretical framework

Expanded urban planning (EP) is an approach to urban planning that may bring about an architecture of opportunities[2] (Horelli 2013a). This means the building of a supportive infrastructure of everyday life (Gilroy, Booth 1999) that encourages citizens to participate not only in formal decision-making, but actually in the co-design and co-production of their own local environment, on the basis of daily and future activities. Thus, EP is not limited to traditional spatial planning but expands to community development and co-governance with a multitude of new actors (cf. the first feature).

EP has been developed in the context of case studies in Finland and Italy (Horelli 2013a; Staffans, Horelli 2014; Horelli et al. 2015; Wallin 2019). It is based on communicative and post-structural planning theories (Healey 1997; Hillier 2011), including the theory of complex coevolving adaptive systems (Mitleton-Kelly 2003; de Roo 2018). However, it focuses more on community development and co-governance than other collaborative planning or post-structural theories (Horelli et al. 2015).

Contrary to traditional participatory planning in which participation takes place in a certain phase of the linear planning process, EP extends from participatory strategic planning via statutory planning, and implementation to the co-production of space, as well as to the monitoring and evaluation of spatial and socio-cultural appropriation (Horelli 2013a; Staffans, Horelli 2014; Wallin 2019). Thus, participation and processes of self-organisation

can take place in all stages and dynamically change depending on the context (cf. the second feature). This includes, in the tradition of time planning, the recognition of the phenomena of temporary urbanism (Horelli 2013b; Bishop, Williams 2012).

EP promotes an urban planning methodology that addresses not only participation, but also self-organising and dynamic everyday life processes that are linked to urban development. It supports self-organisation, which is regarded as a "process of becoming" (Boonstra 2015; Rauws et al. 2016), in a variety of ways, including its later stages of self-governance and co-governance (de Roo, Zhang 2019).

Epistemologically, the development of expanded urban planning has been based on the adoption of participatory urban planning that is suitable for sporadic urban development processes. The methodology applies a variety of enabling[3] methods, as well as future-oriented research tools, including community informatics (Horelli 2002; Aaltonen 2007; Horelli, Wallin 2010; Wallin 2019). These help to embed the planning process in the material and socio-cultural context in question. As the approach comprises a set of digital and non-digital tools (Wallin et al. 2010) to analyse, plan, implement, monitor and evaluate planning and community development processes in an iterative way, it also enhances the collective appropriation of the spatial and temporal structures, as well as practices of everyday life (cf. the third feature).

This methodological variety (Saad-Sulonen 2014; Horelli 2015) enables EP to enhance the linking of local agents – whether public, private or people – to co-create new forms of (co)-governance and production, not only in public participatory events but also in the self-organised initiatives of local residents.

Deliberation within different forms of self-organisation leading to co-governance is also in the centre of EP (Jarenko 2013), challenging the linear and vertical nature of the urban planning system. Co-governance refers to the aspirations to devolution, to the horizontal collaboration between government, local agents and networks. Co-governance is inevitably integrated with urban development as the management of local urban transformations requires the engagement of residents and stakeholders (Boonstra, Boelens 2011; Boonstra 2015; Mäenpää, Faehnle 2017; Wallin 2019), in addition to a new sensibility of institutional praxis and informed planners (de Roo 2018; cf. the fourth feature).

Research methodology

Our study was based on the qualitative comparative analysis of four empirical cases on expanded urban planning in Finland, Denmark and Sweden. The method involved the analysis and synthesis of the similarities, differences and patterns across the cases that share the features of EP.

The data gathering methods comprised a) literature review for building the theoretical framework, b) interviews with three key persons on the case, c) analysis of documents (material on the internet (see references), d) participatory dialogue on the internet (in the Borderland case), e) participatory observation in the cases of Borderland, ABE and More Urbanity to Helsinki.

The data analysis was carried out by applying the constant comparative method of content analysis, (Strauss, Corbin 1990). Methods of interpretation comprised the meta-analysis of qualitative studies (Timulak 2009), the purpose of which is to provide a more comprehensive description of the phenomenon. The interpretation of the results and the drawing of conclusions were supported by the so-called Quasi-Judicial case-method, developed by Bromley (1986).

Case studies and their comparison

In this section, we will first present the case studies on EP and then their comparative analysis. The case studies are described and analysed from the perspective of the four features of flat ontology, as it might provide new knowledge about the meaning of seeing reality this way for urban planning.

Four case studies on self-organisation, self-governance and co-governance

The cases were chosen due to their reflection of several features of EP. They also represent different states of self-organising in the processes of becoming, in the local realm of the Nordic EU countries (Table 1).

More Urbanity to Helsinki – Group (MUH)

In 2009, a handful of young men started a discussion group on Facebook, called More Urbanity to Helsinki (MUH), that questioned the urbanity of the Finnish Capital and its developmental endeavours. These young men were ac-

tive cyclists and new urbanists who applauded the vivid urban atmosphere and 'big city life' that they had experienced in global cities outside the Nordic countries. They preferred an urban morphology with high-rise buildings and high densities with a mobility system based on cycling, trains and trams, instead of cars. They claimed that NIMBYism is destroying the growth of Helsinki. The aim of the group was not to debate whether Helsinki should be more urban, but to discuss the means to get there.

MUH as a Facebook group quickly reached 10 000 members. Today, the number of members has almost doubled, and many other cities in Finland have their respective Facebook groups with the same agenda. This social media gathering also raised the interest of urban planners and researchers. Most of the active members of the group were 25–44 years old, and nearly half of them were women, but the moderators of the group and most of the people involved in the discussions were male (Horelli, 2017). The group is known to have a strict code for discussions and hands-on moderators, who steer the conversation. The concentration of power with the moderators is a way to maintain a desired hegemony, as well as a tool to be considered professional in urban issues. Some of the moderators are also politicians on the city council. Several members are closely linked to a particular political party, as well as to housing developing companies.

The group represents a new kind of activism in which social media is the main vehicle of change. The group does not have a proper core, nor an institutional organisation (Horelli, 2017). However, it has a stable conduct of operation formed in the network. Many people are intrigued by the discussions on social media, which contain harsh oppositions and colourful statements.

MUH is an example of social media activism that seems spontaneous and open from the outside, but which comprises a variety of strategies that deliberately steer sense-making and even political decision-making. It also enjoys international connections, from which it draws inspiration for spatial development, such as the yearly YIMBYcon (yes in my backyard event).

MUH has been able to spin urban development through the planning system itself, as, in 2017, it presented an alternative master plan that was partly adopted by the Helsinki Planning Department. The transforming of the main highways into boulevards and the densification of several neighbourhoods with in-fill construction and high-rise building blocks can be seen as its fingerprint on Helsinki (Figure 1).

Borderland

Borderland (Bl) is a Scandinavian (Sweden-based) creative community and a small "city", 1.1 km² in size. It was created for the length

of a week-long event, in 2019, gathering 3500 people in Hedeland, Denmark. It is part of the Burning Man global network, founded in 1986, which gathered 75000 people in 2019, in the desert of Nevada, Reno, USA. Both of them follow the ten cultural principles (https://talk. theborderland.se/) of the Burning Man (https://burningman.org/), which emphasise participation, civic responsibility and self-governance. Their mission "is to generate a society that connects each individual to his or her creative powers, to participation in community, to the larger realm of civic life, and to the even greater world of nature that exists beyond society." (https://burningman.org/event_tile/mission-statement/, 4.4.2020). The events are co-produced: participants bring with them everything that they need for the week, and all activities, arts and "services" are gifted to the community.

Bl is a case of self-organised community development. The event provides a platform to nourish the community and an opportunity to express oneself through various projects that either serve the community in practical terms or exist for the sake of mere self-expression. This celebration of diversity is also manifested in its organisational model. Bl is a self-governed, decentralised, and volunteer organisation that systemically works against the tendency to build hierarchies. As Bl varies from year to year, this case study presents the planning process and the governance model of the 2019 Bl event.

The Bl organisation does not have any permanent organisational roles. The community re-organises itself each year to create the event. All roles and tasks are open to anybody, and they are voluntarily filled. Role holders from previous years mentor newcomers to adopt their responsibilities. Smaller and topic-specific decisions are made in these roles. Larger issues in which current processes, principles and practices are contested are addressed via an "advisory process" in which solutions are proposed. The chosen proposal is then deliberated until a decision emerges. The discussion takes place on a digital platform designed for conversation threads. Everything around the event takes place by means of voluntary contribution. Art, music, activities, food, cafes etc. are provided by the members of the community without any money being transferred. Projects can apply for funding that is financed by the membership fees. The decisions are collectively taken on a digital platform, designed for co-creation and provision of tokens. Cultural and strategic goals are discussed during the

year on digital platforms. Everybody is allowed and encouraged to participate.

In 2019, the "statutory planning" began with a few people sketching a "city plan", which was discussed and collectively accepted via an advisory process. After creating and accepting the grid, the placement of camps began. All the camps had different themes and they were to provide for the activities of the event. This meant that the placement was going to have a key impact on the overall experience of "the city". Following the philosophy, the community did not want to give this kind of power to any specific role or individual. Thus, placement was done by the participants themselves through self-organisation. It was assisted by a well-planned Google spreadsheet that guided users to fill in all required information and to consider everything that needed to be thought through. The issues included safety restrictions, the camps' need for electricity, the number of campers, audio footprint, etc. In fact, the spreadsheet embodied the critical understanding and knowledge that the professional planner normally considers. It enabled the residents to place themselves as they preferred, while recognising coherence and restrictions (cf. the Dutch organic area development in Rauws 2016). The spreadsheet was also open to everybody, allowing any mistakes to be identified and quickly corrected. Fire safety, waste management etc. were monitored by dedicated individuals. Afterwards, all central op-

Fig. 2: The Borderland map 2019. It provided a grid onto which participants placed themselves in a selforganised way. (Source: The Borderland)
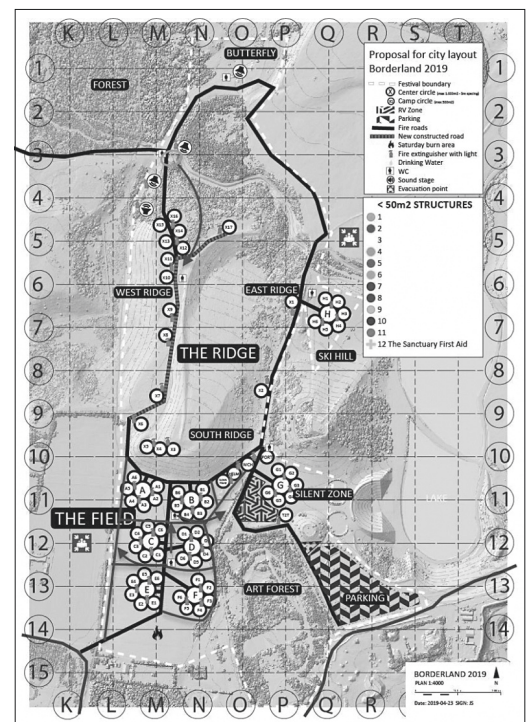
erations and the whole system were evaluated, and learnings documented for the future.

Defining what is desirable, what is relevant information and who participates are part of the extensive use of power. The Bl community has transferred as much management as possible into digital platforms and operational processes. Bl also rotates the roles with responsibilities. The community concentrates on collectively defining the principles of operation but leaves the application to the individuals to make. In addition to the factual temporal city, the co-governance model is also under constant evaluation and development, seeking to have as little role-specific power as possible.

Dyssekilde

Denmark can be considered the housing laboratory of Europe. Although alternative housing is still a fraction of the housing market (less than 100 000 residents live in intergenerational or senior cohousing), it has its roots in the student movements of the 1960s. The slogan was that 'every child should have 100 parents', as there were so many children who spent their afternoons alone while the parents were working. Dyssekilde eco-cohouse is one of the most successful examples. It was founded by five 'firesouls' in the 1980s, who bought 13 hectares of land and a mansion, in the municipality of Halsnaes, a one-hour train ride from Copenhagen. The self-organising pioneers started to liaise with the neighbouring village, Torup (350 residents) early on. They made strategic plans with the villagers on how to develop the area, and the first buildings for the eco-cohouse were erected in 1990 (http://dyssekilde.dk/). The vision comprised the desire to create a community with strong ecological, cultural, social, economic and spiritual qualities.

Currently, the 190 members of Dyssekilde, 30% of whom are children, live in seven groups of houses, which all have their own task force responsible for the area. The ecological dwellings with greenhouses and solar panels are mostly self-built and the architecture is quite personal. In addition, there are a number of working groups to manage the community. Dyssekilde has a rotating government for two years, who prepares the propositions for the monthly community meeting which takes consensus-based decisions. The common house provides a place for shared meals and co-generation of ideas and realisation of projects. The eco-cohouse is well-networked with the surrounding village of Torup, as well as with the national and in-

Fig. 3: The eco-social community life in Dyssekilde is reflected in its architecture. (Copyright: Matawan Baio with permission)

ternational eco-housing networks. During the years, the 'firesouls' and their supporters have co-created several institutions in the village (the little school and day-care centre), local jobs (artisans, artists, entrepreneurs), opportunities for action (café and health shop), a summer market by the train station, yoga, festivals with concerts, exhibitions, a gallery and, above all, Torup Ting, a near-democracy platform with many activity groups. Thus, the locals and the cohouse-residents meet each other on many platforms and in many activities. According to the report by Jepsen and Busck (2019), the reasons behind the success of Dyssekilde-Torup lie in the extensive social capital and enabling culture that have been created through the close social networks among the cohouse, the village and the municipality. Also, the attractive housing solutions and the location, which is well-connected by train to Copenhagen and to the surrounding seashore area with many summer residents, have provided opportunities for action (Figure 3).

A few years ago, the municipality asked Dyssekilde to expand the sustainable village northwards. The residents discussed the proposal at Torup Ting and proposed together to make Torup grow southwards, with a new sustainable cohousing project called Hvidland (after the previous farm on the land). The construction of the first buildings will start soon.

ABE (Aalto Built Environment Lab)

The Otaniemi Neighbourhood is the heart of the Finnish technology and engineering education in the Helsinki Metropolitan Region. Since 2010, it has been under rapid urban transformation. The collapse of the Nokia Ltd business park and the emergence of Aalto University campus together with a new metro line initiated a vast urban development process. It has been driven by statutory planning processes and top-down mega-projects, such as new metro stations, a shopping centre and new university buildings. However, local activism, mainly at the university campus, has provided temporary locations for a variety of entrepreneurs, as well as cultural and scientific initiatives. One of them is a methodological living lab called ABE, founded in 2012, in response to the self-organisation of several researchers from different university departments. The latter were interested in experimenting with new methods of knowledge creation in urban development. Currently, it is mainly financed by the Aalto Living+ Platform, a multi-disciplinary platform for human-centred living environments at Aalto University.

Its aim has been to explore and study new digitally supported, interactive collaboration in urban issues. The hardware framework of ABE consists of a seamless array of three large projection displays that can display both 2D and stereoscopic 3D information. The set of main displays is complemented by supporting equip-ment, such as cameras, microphones and secondary displays. Thus, the lab provides spaces and a variety of technologies and tools for planning and development, such as immersive modelling and simulation techniques, process tracking, and visualisations for decision making (Eräranta, Staffans 2015). These have enabled the prototyping and anticipation of novel service environments, the exploration of new media for storytelling, agent-based modelling, game design, rule-based zoning and, above all, the Aalto campus development. Thus, ABE is a socio-technical platform for a number of working groups and people from different backgrounds ranging from politicians, researchers and municipal administrators to local activists and students. However, it is not just the abundance of tools that are important, but their integration in an ecology of tools (Wallin et al. 2010) or in a comprehensive planning support system (PSS), which is linked to the social and ecological conditions of the project and context.

The ABE philosophy is that planners and decision-makers should have an awareness of what the situation is and how the various parts of society are interconnected, both locally and globally, depending on the context (Eräranta, Staffans 2015). This is called situation awareness, defined as "the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning, and the projection of their status in the near and long-term future" (Endsley 2008: 5). However, the problem is that participatory endeavours usually touch a broad public and produce a great deal of information, but the data remains scattered and difficult to access by different stakeholders.

The ongoing change process of the campus area has offered alluring opportunities for action research on urban transformation, which has inspired several academic interventions in the campus development (Wallin, Staffans 2015). The projects and events that have taken place at ABE have also been connected to the official urban development and planning networks in the Helsinki metropolitan area. However, the political decision-making problem remains, namely, how to engage politicians in the planning process in such a way that they will be loyal to the collectively deliberated solutions.

Fig. 4: Participants at Otaniemi redevelopment workshops. (Copyrights: Aalto Learning Centre and Aalto Built Environment Lab)

Comparison of the cases

The cases were structured around four heuristic questions, based on the chosen core features

of flat ontology. The results are condensed in Table 1.

The cases vary in several ways, such as the conceptualisation of urbanity, organisational structure and modes of action, temporality (temporal – longue duree), agenda and focus (innovative sense-making, increasing urbanity, temporary community building, alternative housing).

They also vary in terms of the emphasis on spatial planning, community development and co-governance, the stage of the planning process, as well as the use of digital platforms. Thus, the consequences and outcomes also vary representing different aspects of (expanded) urban planning. Some of them are contributions to enhance the infrastructure of everyday life, communality and inclusiveness (Borderland, Dyssekilde), others strive to densify the urban structure (MUH), whereas one seeks to augment the methodological know-how of urban planning and development (ABE).

However, irrespective of the variations, all the cases share the ontological engagement of pluralist realism without borders in the sense that they wish to expand the surrounding circumstances and increase the participatory, deliberative culture. Interestingly, a wide spectrum of deliberative cultures could be recognised in the cases, relating to both the extent and stage of planning, the methods and tools applied, and the relations between the assemblages (cf. Table 1).

Deliberation, in general, refers to local decision-making via public argumentation and discussion (Jarenko 2013). However, more recently, the systemic approach to deliberative democracy has gained more focus. The systemic approach scrutinises not only a single event, but the whole social and structural system of decision-making. According to Hendriks (2015), the characteristics of deliberation are:
• the fora of participation,
• number of participants in the collective sense-making,
• opportunities for agenda setting,
• shared decision-making criteria, and
• decision-making about collective issues.

In these examples, deliberation takes place by co-creating, through initial self-organisa-

Tab. 1: The main issues emerging from the heuristic questions.

Questions / Cases	What is the extent of planning?	What stage of planning is at stake?	What methods and tools are applied?	What are the relations between the assemblages?
More Urbanity to Helsinki	A self-organised movement to enhance the densification of the city and to increase the building of housing in the urban centre via spatial planning	Strategic and statutory planning, real estate development	FB group, workshops, meetings in a pub, co-designing and lobbying of construction companies and political representatives at the Helsinki City Council	Close connections/ triple roles, including political lobbyists, activists and city officials. Networking with global urban activists (YIMBY Event/ Helsinki YIMBY City)
Borderland	Self-organised community building and co-creation of a temporary city by applying strategic and operational planning, co-production and co-governance	Activism in all stages, also evaluation (post-mortem)	Visioning, participatory dialogue, workshops, placing, building, art, a self-governance-enabling digital platform, monitoring and evaluation tools	Part of the global Burning Man Network. Active individuals and smaller groups, volunteer-based communal responsibilities
Dyssekilde cohouse community	Self-organisation to make an alternative housing settlement through spatial planning, community, development & co-governance	Strategic planning, statutory planning, implementation & evaluation	Visioning, participatory dialogue, workshops, building, art	Cohousing groups in different combinations. Village stakeholders, municipal politicians, administrators, & entrepreneurs collaborate. Links to national and international eco-housing networks
ABE	A novel initiative to expand strategic sense-making with a variety of assemblages, enabling the recognition of the conditions for urban development	Strategic and statutory planning, especially zoning but also service design and event-making	Several mapping and analytic (anticipation) tools, e.g., PPGIS, process tracking, visualisations, decision-making theatre, Big Room working, PSS	From Triple Helix to 4 Helix in an Aalto University assembly of municipalities, enterprises, NGOs & local urban activists. Active in international scientific and living lab networks

tion, various deviating solutions, whether in housing or in urban planning, community development or co-governance. In addition, all the cases are actively linked to international networks.

Analyses and results

An expansion of the extent of planning

As pointed out in the previous section concerning the comparison of the cases, the shared feature is the ontological engagement of pluralist realism in the sense that the representatives of the cases wished to expand the surrounding circumstances by co-creating, through initial self-organisation, deviating solutions to what is considered standard. However, the solutions and approaches are manifold in the spirit of pluralist realism. The extent of planning ranges from strategic and statutory spatial planning (ABE, MUH) to community development, including self-organisation, self-governance and co-governance depending on the context, such as Borderland and Dyssekilde. This means that adopting this feature of flat ontology provides a starting point for the whole spectrum of planning activities, in addition to traditional spatial planning focusing on the mere physical elements.

All the cases demonstrate a wide variety of actors and assemblages participating in the planning and co-production of urban space, from individual persons aiming to have fun in the urban space, to angry activists opposing the official plan, communities creating and improving their living environment, or researchers and civil servants. In the traditional, government-centred (ontologically hierarchical and monopolised) conception of planning, these aspirations would have been conceptualised as opposing, marginalised urban activism, but the expanded urban planning approach enabled us to examine urban development in general.

The importance of temporal dynamics in all stages of planning

The cases show a great variety concerning the focus of the stage of planning that they are concerned with. Some are primarily concentrated on strategic and statutory planning (ABE, and MUH), whereas others focus on community development and urban activism *in situ* (Dyssekilde) or break away from all the stages and temporalities of the planning process (Border-

land). The case of Borderland brings forth the issue of temporality in urban planning processes, as it represents temporary urbanism that is repetitious. The latter comprises various forms of self-organising processes and emerging phenomena, such as guerrilla gardening, food trucks and pop-up events. According to Bishop and Williams (2012: 5), the concept of "temporary" varies widely, but usually concerns an intentional phase in which the "time-limited nature of the use is generally explicit".

In fact, temporary urbanism is part of time planning, which has been experimented with for more than two decades in several Southern European countries. It focuses on the temporal qualities of social and spatial structures supporting the everyday life of citizens (Horelli 2013b). It is also integrated as part of EP in order to enhance complexity management (Wallin 2019). Its characteristics are the awareness of the consequences of different concepts of time, such as chronological, (linear) time versus 'kairological' (experiential and meaningful) time, individual versus collective, social time and time as past, present or future. Local residents often live in a different timescape, whereas planners, for example, focus on the future. The analysis of the temporal dynamism is also part of the methodological toolbox of ABE and temporality is highly present in the tactical urbanism of MUH. Last but not least, the enhancement of the processes of becoming (self-organisation and evolution) depends on appropriate 'time planning'.

Application of a variety of digital and non-digital methods and tools

Besides traditional enabling methods, urban activists applied digital tools in all the cases, at least in some stages of the action. Some of them were enabling (tools for communication and interaction). Others were analytical tools for sense-making and data gathering, which were adopted as part of the emerging methodology of research in urban studies.

The enabling tools for communication and interaction were primarily social media applications. At the time of the study, Facebook was the most popular of these, as it was used in all the cases, but Twitter and new photography-sharing applications were considered useful for sharing place-based data and for attracting vast masses of people. Borderland utilised digital platforms that were specifically designed to enable collective deliberation and decision-making of a geographically dispersed community. The lat-

ter were also powerful in community building at the local level. The power of social media lies in the fact that it can engage a myriad of participants, and just a few people can be enough to make a difference, as in the case of MUH.

However, the main contribution of social media lies in citizen science, in the self-organised knowledge creation for research purposes. Thus, social media enables the delivery of outcomes together with other analytical equipment and applications. Open access mapping tools and open data can also be used together with the visualisation techniques. Several activists are, in fact, professionals in their field, but are also laypeople who can produce valid scientific information.

In terms of data gathering, laypeople can produce work that cannot be achieved with the resources of institutional research organisations. To date, the data gatherings of activists have been local and modest in terms of numbers (Poikola et al. 2011), but the opportunities are increasing. In the same way that ABE introduced novel planning methods, The Finnish Environment Institute (SYKE) has produced data and mapping tools for citizen science. It has created applications of environmental monitoring and evaluation for ordinary citizens, residents, pupils, amateur teams or NGOs. Thus, citizen science can play a role in monitoring the impact of environmental policies and raise debate about policy options (cf. https://www.syke.fi/citizenscience).

In the case studies, professional environmental data was used, for example, in MUH. The Borderland community conducted a "post-mortem", an evaluation of the production of the 2019 event, using an online questionnaire and an online meeting for discussion. Self-organised action, in general, is at the front line when applications are being innovated further (Saad-Sulonen, Horelli 2017). ABE also introduced new methods of sense-making that sought to build a bridge between different stakeholders, activists and politicians, simultaneously providing a new perspective to planners. Therefore, digitalisation is a much larger question in urban planning than just engaging people with social media. The variety of tools provides possibilities to affect planning, and even deliver valid plans.

Complex relations between the assemblages

All the cases started in some form of self-organisation, which soon evolved into a more or less intentional activity that Gert de Roo (2018) calls self-governance and, in most cases, also into co-governance. Beitske Boonstra (2016) has redefined self-organisation as actor-relational networks that emerge from interactions between human and non-human actors. On the basis of two case studies on Danish cohousing, she proposes four types of behaviour visible in self-organisation processes. These are decoding (disassociation from existing schemes and a desire to move in a new direction), coding (becoming familiar; something common that fits existing schemes in the outside world), expansion (an opening of boundaries, exposure and exploration of new content) and contraction (a closing off, a narrowing down through selecting, explicating and consolidating content).

These types could also be recognised in the Dyssekilde eco-cohouse, with the exception that there was a new expansion after the contraction. Also, Borderland continued to withhold an element of self-organised action, while it was also part of a co-governing community. Thus, the self-organised initiatives became part of the whole assembly, even though they did not intend to work towards a predefined common goal.

Consequently, our examples showed that the process of becoming proceeds back and forth in several stages of action, not in a linear way, as described by de Roo and Zhang (2019). Rather the interactions resulted, as described in the editorial by Reuw et al. (2016) 'in a best fit between the self of the initiative and its environment, within which it can materialise as a new assemblage in space'.

The cases disclosed different types of relationships between the assembly and the representatives of co-governance or governance. Dyssekilde connects to the informal everyday life of citizens, providing an enabling structure for its betterment together with the surrounding village or municipal authorities. This draws citizens, including those who would not participate in formal arenas, to the sphere of co-governmental influence. ABE also represents this type of *collaborative relationship*, although it is highly aware of the problems concerning political decision-making in co-governance. The opposite to the first type is the *self-contained relationship* of Borderland, as BL seeks to develop its own (g)local realm by having as little as possible to do with municipal governance. MUH, in turn, represents a *reinforcing relationship*, as it seeks to liaise with the powerful political leaders and construction enterprises in order to achieve its goals. Last but not least, there

are several activist groups, although not in our study, which have a *counterforce relationship*, as they strive to oppose the mainstream urbanists and wish to protect the eco-social environment. In sum, there are diverse assemblages that guide and steer the devolution of power in urban issues that are reflected in the production of urban space.

Unexpected consequences for urban development

The consequences of EP in the light of the cases are manifold, ranging from a master plan (MUH) to a viable infrastructure of everyday life and an alternative housing model (Dyssekilde), temporary urban events (Borderland) or increased situational awareness (ABE).

There were cases in which self-organised urban action had a more supportive and inclusive impact on the local development than would have been possible by mere planning endeavours. Borderland and Dyssekilde were also able to introduce living environments and an urban culture that official development agencies and public services would not have been able to provide. However, self-organising processes are loaded with uncertainty and surprising contingencies. For example, the self-organised and self-governed movement (MUH) disclosed how difficult it is to anticipate the consequences for urban development.

Conclusions and discussions

We argued that expanded urban planning, which is based on the pluralist realism of flat ontology, opens up methodological opportunities for a more agile and responsive planning system, potentially leading to more inclusive urban development. We will first discuss how the adoption of the four features of flat ontology provides scope for the expansion of urban planning and then how this entails the need to deal with the temporal dynamics of urban planning and the requirement for a methodological increase in the situational awareness of urban development.

Flat is fat

The connection between ontological engagement and empirics is always cognitively and epistemologically mediated. Thus, it affects our premises, which have consequences for our aspirations regarding urban planning and devel-

opment. However, an ontology, such as the flat one, provides a way to see and describe reality in a richer and more useful way than other ontologies, because it does not exclude but includes new and unconventional phenomena in the sphere of reality. 'The pluralist realism without borders' is also a suitable starting point for expanded urban planning, as it increases the extent and scope of urban planning. This was corroborated by the case studies, as they showed a variety of foci – from spatial planning to community development and co-governance, including different phases of self-organising – depending on the purpose and context.

The cases also revealed the importance of recognising the temporal dynamics of the varying stages of planning – whether temporary or sustained, repetitious or one-off. In fact, the dynamism of the central phenomenon of flat ontology – emergence or becoming (Boonstra 2016) – seems to require the approach of time planning.

The feature of flat ontology that we called 'epistemological resistance towards homogeneous reduction' turned out to mean the requirement to apply a variety of digital and non-digital methods and tools in order to be able to analyse, interpret and apply knowledge of the phenomena in question. In terms of the chosen ontology, this is important, as methods and tools affect the conception of "what is" and impact the shaping of things in actu (Deleuze, Guttari 1981).

Traditional urban planning has been blind to the myriad of actors in various local realms, which have been defined by the actors themselves. Flat ontology, in turn, enables anchoring of urban planning in a variety of local realms that assemble urban space. In addition, the connections and relationships among specific entities – whether human or non-human – turned out to mean that there are a multitude of complex relations between the assemblages whose deliberation requires varying skills. In sum, we would not call the ontology flat, but fat!

Dealing with the temporal dynamics

The study presented evidence that self-organised urban development can take place simultaneously in several time spans, but also the action itself is changing in time. Thus, it is important to analyse how consistent or sporadic self-organising development is, without considering it being iterative. The temporal transformations provide self-organisation with the dynamics and power to steer project-based and

process-driven urban planning endeavours in a different time span than the linear urban planning projects (Wallin 2019). Thus, we agree with de Roo (2018), according to whom urban planning, which traditionally relates to situations that are fixed and frozen in time, should expand its field of vision and its action radius in a reality that is sometimes undergoing slow transformation and sometimes abrupt change. However, with the means of expanded urban planning that recognise the importance of different times and temporalities, it is possible to enhance and enable inclusive local development.

A need for methodological increase in situational awareness

Flat ontology provides opportunities to redefine both urban planning and development. This does not mean an abolishment of statutory urban planning, but an expansion of the spectrum of planning with a rich methodology for sense-making and dissemination. However, self-organised actions transform, besides the planning methodology, also the planner and the planning system. The latter needs to recognise the different states or areas of the transformation process, their contingent conditions (de Roo 2018), as well as the different relationships between the assemblages. The expansion of uncertainty and complexity means that even careful planning does not necessarily lead to successful urban development. Consequently, a wider epistemic development of planning is desirable, one that recognises not only enabling tools, but also the deliberative structures and knowledge creation that current ICT technology enables. Citizen science plays a role in the monitoring of the impact of environmental policies, raising questions about policy options (cf. https://www.syke.fi/citizenscience). In addition, strategies that comprise institutional designs, based on digital platforms, operational processes and decision-making principles of co-governance, turned out to be successful in our study. Thus, deliberative future-making tools that augment situational awareness could increasingly be applied in urban planning processes (Horelli, Wallin 2010; Aaltonen 2010; Wallin 2019). In a Latourian sense, digital technology is more than just a gadget, as it transforms the community, its sense-making and actions in the real urban environment.

Local realms embedded in glocal networks

The adoption of flat ontology in planning might make it easier to embrace local realms, both in the form of "agreed reality" (self-governance) and in that of unintentional actions of stakeholders, which produce urban space with consequences for urban development (Reuws 2016). However, the case studies in this article do not only represent the local realms, as all of them are embedded in glocal networks. The local realms are not containers, but a space for and of varying interest groups and actions, where self-organised endeavours and people are changing in time and place. Access to social media and other internet-mediated tools have created communities of practice (Saad-Sulonen 2013) that have a profound effect on the local realm. Examples such as the methodology of situational awareness (ABE), the style of co-governance in Borderland, the urge for urban densification (MUH) and the latest trends in ecological living (Dyssekilde), also represent the adoption of a pluralist realism without borders.

Thus, we repeat: flat ontology should be called fat, as it makes the conceptualisation of planning manifold and deliberative instead of linear and hierarchical. This kind of ontological turn continues the critique of participatory planning and paves the way to a more agile and responsive planning system that may lead to inclusive urban development.

Notes

1 Urban development can be both intentional and unintentional, just as the verb 'development' is both transitive and intransitive. The latter is almost the synonym of urban transformation.
2 Architecture of opportunities refers to the idea that urban planning is about organising hope (Sandercock 2003).
3 Enabling tools refer to any techniques, even traditional research methods, that enhance the transactions and knowledge creation of the stakeholders during the phases of participatory planning (Horelli 2002).

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Links

MUH: https://www.facebook.com/groups/184085073617/
Borderland: https://www.facebook.com/groups/theborderland/
Dyssekilde: https://bofaellesskab.dk/bofaellesskaber/se-bofaellesskaber/dyssekilde
ABE: https://www.aalto.fi/fi/aalto-built-environment-laboratory

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