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Navigating Change: Planning for societal and spatial transformations

Along the concentrated efforts of the Association of European Schools of Planning (AESOP) to Open Access scholarly planning debates, the young academics network of AESOP continues to publish its international peer-reviewed open access e-journal, *plaNext*. *plaNext* provides prospective authors an opportunity to engage their ideas in international planning debates as well as make their research available to the wider planning audience. *plaNext* invites authors to submit original work that includes: empirical research; theoretical discussions; innovative methodologies; case studies; and, book reviews on selected books, textbooks, or specific topics dealing within planning.

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VOLUME NINE, SPECIAL EDITION
Navigating Change: Planning for societal and spatial transformations

Each year, *plaNext* aims to publish two volumes; one of which presents a collection of original works following an open call, and the other presents a selection of articles from the AESOP Young Academic (YA) conference of the previous year. Representing the latter, the 9th Volume of *plaNext* stems from the 12th AESOP-YA Annual Conference, *"Navigating Change: Planning for societal and spatial transformations"*, held in Groningen (The Netherlands), March 2018. Invited authors' contributions went through a rigorous peer-review process in which, Dr. Paulo Silva - *Senior Guest Editor* – from University of Aveiro, Dr. Mafalda Madureira - *member of plaNext Editorial Board* – and Batoul Ibrahim - *member of YA Coordination Team in 2018* – acted as guest editors.

This special edition presents a selection of articles elaborating diversity of planning approaches that deal with various forms of (positive or negative) change and questioning how they impact society and affect people's every-day lives.

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Editorial: Planning is About Change – Different Perspectives on Societal Challenges

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It was with pleasure that I accepted the invitation to be guest editor of volume 9 of plaNext. This publishing initiative of AESOP Young Academics Network, almost reaching a dozen, has an already remarkable amount of knowledge produced and shared, fulfilling the aim based on the strategic vectors referred by Francesco Lo Piccolo in the editorial of the first volume of plaNext: to make Young Academics' research products more visible; to bring together young academics from Europe and beyond, sharing new research perspectives, intersecting planning with other academic fields; and to combine open access environment with high quality materials (Lo Piccolo, 2015). This could not be truer when looking to contents of past and present volumes of plaNext, by giving visibility to more peripheral planning and research contexts, crossing perspectives from various disciplines while looking at European planning issues and not only.

This is not an exception with the present issue, as it is dedicated to contributions from participants in the 12th AESOP Young Academics Conference. The conference was hosted by the Faculty of Spatial Sciences at the University of Groningen and was held from the 26th until the 29th of March 2018. The chosen theme was "Navigating Change: Planning for societal and spatial transformations", with the aim to look for insights into how various disciplines within planning, and related to planning, are dealing with change. The conference asked how it was possible to diversify planning approaches that deal with various forms of (positive or negative) change, questioned how these impacted society and affected people's every-day lives, and contributed to interdisciplinary exchange within planning related research and practice on navigating change.

The aim of this conference was therefore to bring together different perspectives to the discussion of societal and spatial changes by critically examining the knowledge upon which transformation is or can be planned. The conference organisers proposed an approach which allowed researchers to go in-depth into navigating (processes) of change in urban areas. The 'wish to examine both the analytical and normative dimensions across various disciplines within and closely related to planning' was an additional task. A challenge, since societal and spatial transformations reflect many times the existence of complex settings, requiring tailor made responses, which planning tries to interpret, and *must* in practice translate into readable,

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easy to understand, stable, transparent, and yet flexible and adaptable norms and rules. And by challenging planning this way, inevitably the role of planners is also matter for debate,

In this framework, researchers and practitioners were invited to discuss the broader topic of navigating change, organized in the following five tracks: environmental change, technological change, population change, political change, and planning approaches for change. These tracks are closely connected to societal changes, therefore they concern planning and invite planners to question and reinvent methodologies, while analysing processes and interpreting discourses. What does it mean navigating change? Bringing together in this discussion a diversity of perspectives becomes additionally challenging, when it is recognizable how non-linearly societies, territories and cities in particular evolve (Hartman & de Roo, 2016), how demanding this is for the development of new conceptual frameworks and how simplistic dichotomist approaches are harmful for planning (Davy, 2014), contributing to spatial and social segregation, instead of integration (as it occurs for instance with the dichotomy between the formal and the informal city). Through this 9th volume of plaNext we can witness this move made by contributors: methodologies are explored in order to formulate policies to deal with complex contexts, as a result of change of technologic paradigms; cultural policies are evaluated in their contributions to the design of urban planning strategies; art projects are developed and explored as planning participation mediators; adaptive housing is integrated as permanent solutions for temporary needs, through flexibility and reversibility; local economic development is discussed as a challenger for sustainable outcomes; and the design of games rules' premises are questioned by the way they can affect civic engagement (when they are used to discuss urban design proposals).

The 12th AESOP Young Academics conference – and this volume of plaNext as a follow-up of it - brought the topic of navigating change back to Europe. Not being a matter for total surprise, it is still relevant that this occurs. In fact, in the last decades the rapid growth of the developing world has transferred the attention on pace, urgency and challenges associated to change to other parts of the planet addressing for instance the accelerated growth and impact of slums in the urban fabric. The topics addressed in this volume, although directly concerning European contexts make also part of a globalized world, such as migratory and refugee's movements, technological shifts or the impact of tourism. They are good examples of how, despite being addressed in European contexts, they concern broader and globalized contexts. Papers address very specific cases, distributed by different parts of Europe, from Tallinn and Riga to Bozcaada in Turkey. The peripheral condition of some of the researches here presented contributes to explore new responses for planning problems. The experimental contexts in this paper are interesting as they allow to experiment and eventually generate new mainstream outcomes; they all reveal relevant conclusions which one can anticipate being replicable to other contexts.

Six authors, young academics, out of the number of participants in the major annual event of AESOP Young Academics Network, kindly responded positively to the call for participation in this issue of plaNext. Researchers affiliated to European planning academic institutions and looking at European contexts and beyond, since much of their topics are transnational. Opening this kind of debates the authors prove how planners can and how PhD researchers and planning students in general are getting prepared for a global profession however needing to immerse in local contexts (Alterman, 2017). The six papers presented below are representative signs in this direction.

In the paper from Eriketti Servou with the name "A methodological approach on studying policy-making of autonomous driving in cities – technology (related with autonomous driving)

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as a trigger for (possible) policy change" - the author proposes the reader, a new approach for policy-making for a particular technologic transition – from human to autonomous driving - based on the combination of Argumentative Discourse Analysis (ADA) and Actor-Network Theory (ANT). The reliance on the complementarity of the two methodologies is the starting point of Eriketti Servou's research. In the paper, Servou highlights the benefits of combining the two methodologies (ADA and ANT), as they together allow policymakers to understand from different perspectives, the contexts generated by the introduction of the technology of autonomous vehicles into urban mobility (and the necessary changes on mobility policy). Extrapolating to other contexts, it allows other researchers anticipating the use of these two methodologies combined in other contexts in which non-linearity is present. The case provided by this paper clearly illustrates the non-linear path of autonomous driving and implications for spatial planning, since the first remote controlled vehicle, invented less than one century ago until the recent developments of autonomous driving already in the present century.

Astrid Krisch's paper "Examining Cultural Planning in Vienna: On the Discursive Institutionalization of Social Infrastructure in Strategic Planning" sheds light on culture as a form of social infrastructure towards strategic cultural planning in Vienna. The paper starts by making an interesting summary of the role of culture in the planning process setting its emergence in the 1940's with the coining of the concept of cultural industry, while it points the 1980's as the period when it became part of strategic urban planning, until the revival of strategic planning in the early 2000's and more recently the integration in the smart city concept, more focused on technologic aspects of art. The differentiation of the roles that culture played in these last four decades in Vienna is crucial for the discussion developed in the paper. When it comes to the analysis of the case study of Vienna, it focuses on comparing planning documents – taking the framework of discursive institutionalism – from the last two decades, and placing it under three dimensions: market, state and civil society. Two main ideas emerge from this research. The first relates to the apparently renovated generation of planning-driven culture policies, contradicting a path-dependency for over the last four decades; the second, when it comes to integrate culture into urban planning, the need to centre cultural policies on its social function and on the civil society, instead of the current economic-driven and market tendency.

The paper from Tiina Hotakainen and Essi Oikarinen "Balloons to talk about: Exploring conversational potential of an art intervention" addresses art as a mediator between stakeholders in urban development, through conversation, while it shows more expected potential for place-making. In order to achieve this, in the paper, the authors set three types of conversation: conversation in relation with temporal disruption (this occurring in close relation with performative planning as a disruptive practice); in relation with material and situated conversation to explore architectural spaces in their boundaries, distant from the architecture's problem-solving core; and technological mediated conversation as underexplored means of communication within the urban setting. Hotakainen and Oikarinen's paper underlines the role of materiality associated with the art piece as an attractor and as a place maker, temporariness as simultaneously stimulating curiosity but also generating some kind of frustration in those witnessing the art intervention; and social impact measured through on site conversations and through social media (with expected different results in these two contexts). While the authors recognize the value of this art installation experiment as a pilot project, they conclude by raising issues such as the contribution of art intervention in terms of conversational potential for planning debates. The paper concludes by suggesting that "even tentative information without specific objectives, when presented in a public data installation, could prove valuable for urban development discourse", in an exploratory way, of going beyond traditional public debates on urban planning, usually more concentrated on the

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municipal planning activities and on the most visible building features of cities' development.

The paper from Beatrice Jlenia Pesce and Annamaria Bagaini with the title "Urban and Architectural adaptive strategies for Inclusive Cities: a review of international innovation experiments" raises the question of how to answer with permanent flexible solutions to the uncertain occurrence of migratory flows into cities – as the authors start by referring, cities are, for the vast majority of migrants, their final destination, considering the examples mentioned, all corresponding to Global North countries. The paper collects and reflects on series of best practices, underlying the role migrants might play as key actors to regenerate derelict parts of cities, first at the economic level, starting from establishing small businesses oriented to their own communities, until they enlarge their scope by creating other businesses towards the wider urban context. Two crucial qualities are pointed here, in addition to the citizens' involvement and to the governance mechanisms: flexibility and reversibility. The eight cases analysed are all located in Europe and mostly targeting a specific and far from consensually considered group of migrants (see UNHCR) – refugees seeking for asylum – in different kinds of build contexts, from infill existing buildings to the use of vacant land, and with different landownership status, from the intervention in private land to the use public soil, in order to avoid the most common modernist alternative of "planned ghettos". Pesce and Bagaini propose three types of architectural adaptive strategies as responses to new housing needs: temporary flexible replies for emergency accommodation; "opportunistic" occupations of buildings and public spaces – taking the inspiration from the word «parasite», one of the initiatives' acronyms analysed by the authors; and the mixture of fixed structures and flexible spatial subdivisions as a so-called open building approach. An additional feature presented in this paper, is the fact that international experiences are, at the end, locally influenced, with each society taking stock of their experiences in other contexts (such as co-housing in the Netherlands influencing the Dutch examples in this paper), as an inspiration for a flexible habitat, as the base for a more democratic and sustainable city.

The paper from Duygu Okumuş, with the title "Seasonality and out-migration of residents: the case of Bozcaada, Turkey" addresses the transition between economies - from agriculture to tourism-related activities - in a not anymore so remote part of Turkey, the island of Bozcaada. While the improvement of accessibilities during the last decades made the territory more attractive for Turkish middle class, seeking for new residential locations, the coincident tourism attractiveness of the island, contribute together to the change of residential patterns, with related impact in social and cultural life of the few remaining non-seasonal ancient residents. The thorough data collection presented by Okumus, through interviews to the different types of residents, allowed the author to raise a discussion in relation with the impacts of the process on education, health, cost of living and new social trends – these, which are seen by some of the interviewees with resignation. By reflecting on these aspects, the author questions the recurrent dominant narrative of the integration between local economy growth and local development, taking this (un)successful case of change from an agricultural economy to a tourism economy, both relying in local resources with totally different societal outcomes. The case of Bozcaada is eloquent on showing how the rapid transition from the almost extinguished wine culture to the almost omnipresent mass tourism, can erode social-cultural local life. Local tourism, concludes the author, is seen as a threat to local services, by interrupting socio-cultural life, due to its seasonal characteristics.

The paper from Viktorjia Prilenska – "Participation Game: Reflections on the iterative design process" explores two cases in different geographic contexts, Tallinn and Riga, in which serious games were applied for the discussion of urban design solutions among university students and high school pupils. The goals of the game were, as the author refers, "twofold,

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on the one hand, to familiarize the audience with public hearings of urban design related projects, and, on the other hand, to find out how the changes in the setup of the game influence the player experience and the outcomes". Apart from providing a very detailed description of the several steps of the game, also highlights and explores the possibility of adapting the game's format, addressing players' profiles, motivations and reactions, and adjusting the game as it is taking place. In the discussion and conclusions, Prilenska sheds light in a less explored aspect of serious games, which is the one of the desirable outcomes for games' authors, influencing and limiting players' participation. At the end, this is an opportunity to focus, discuss and question serious games as a civic engagement tool and its purposefulness. By focusing on this, the author addresses games as a limitation of opportunities for discussion, shedding light on the threats for inclusiveness brought by this method of participation.

These papers reflect from quite different perspectives on how societal and spatial changes imply different planning and planners' approaches. They also reflect new perspectives on how to grasp opportunities to innovate, from policy making to architecture. In some cases, they show the limitations of some methodologies, pointing the need / the benefit to combine them. These are just some of the many reasons that have turned the editor guest work rewarding, and that will hopefully motivate the academic community's' interest by this new plaNext issue.

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A Methodological Approach on Studying Policy-making of Autonomous Driving in Cities

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This commentary proposes a methodological approach about policy analysis on autonomous driving. It focuses on the role of discourse, the multiple actors and technologies involved in the processes of urban policy-making. Autonomous driving is considered a crucial case of policy-making in cities, because of the multitude of established and new actors involved as well as the combination of different digitalisation and automation technologies. Current research outlines the uncertainty planners and policymakers find themselves in regarding how to plan and regulate for autonomous driving, and calls for the need of finding the right forms of governance and policy for the implementation of autonomous driving in urban contexts. Therefore, studying the processes of its policy in the making is vital, as it is these processes that determine if and how any kind of policy will come into place. Subsequently, it is urban policy that will define the ways autonomous driving will be implemented and its implications in cities. Since both socio-political and material factors play a role in policy-making, a suitable methodological approach is needed that can address both. Therefore, this commentary discusses methodological developments drawing inspiration from Argumentative Discourse Analysis (ADA) and combining it with elements from Actor-Network-Theory (ANT). The insights provided by the commentary aim at a more comprehensive and thorough understanding of policy-making processes of autonomous driving and how policy change occurs (or not).

Keywords: autonomous driving, policy-making, argumentative discourse analysis (ADA), actor network theory (ANT)

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Introduction

Autonomous driving is an important element of the discussion about the future of mobility. It is often assumed to radically change the way we move in the future (Fraedrich et al., 2015; Lipson & Kurman, 2016). While applications of autonomous driving on highways are already expected by 2022 (Kellerman, 2018; Freudendal-Pedersen et al., 2019), its implementation in cities is considered much more complex (Kröger, 2016; Kellerman, 2018). This is because cities are complex highly-populated environments with multiple interactions between infrastructure, persistent mobility patterns and humans. In this sense, especially during the transition phase, autonomous vehicles would need to share urban space with vehicles with a driver, and other road users (e.g. cyclists, pedestrians) as well as human activities (e.g. retail). Therefore, there are a lot of debates and questions surrounding the implementation and implications of autonomous driving in cities. To name but a few: will autonomous driving reduce or increase today's car use and ownership, traffic volumes, and transport emissions? How will autonomous driving affect land use in cities? To what extent will it be integrated into public transport, be combined with on-demand services and sharing schemes, and replace private conventional cars? Will autonomous driving actually increase inclusivity in mobility (e.g. for the disabled, children, people who don't drive) or will it be available only to the people who can afford buying autonomous cars? The answers to these questions are to be determined through policy-making.

So far, policy-making for urban mobility has been primarily based on the negotiations between the established automotive industry and the public sector (city planners, politicians). As such, it has been characterised by specific path dependent principles and objectives (e.g. prioritization of highway capacity, parking spaces, etc.). However, autonomous driving brings in new actors and technologies (e.g. ICT industry), challenges the long-established actors, and creates interdependencies between old and new actors. Thus, it can be argued that whether and how it will be implemented depends a lot on how the negotiations between the automotive industry, the ICT industry, and the public sector will play out. At the moment, there is a lot of uncertainty and ambiguity among the actors as well as institutional inertia when it comes to its implementation in cities (Freudendal-Pedersen et al., 2019). This renders autonomous driving a 'messy policy problem' (Fischer & Gottweis, 2012). Therefore, the main scope of policy-making at this initial stage is more about determining who is going to steer the process, and about creating a vision on the role of autonomous driving in urban mobility. It is not yet about actual implementation, as there has not been any formulation of a common understanding of the issue or of any strategic orientation so far. Thus, it makes more sense to talk about *policy of autonomous driving in the making*.

Research on the policy-making processes on autonomous driving has been so far underrepresented. Porter et. al. (2018) and Legacy et.al. (2019) point out the challenges of finding the right forms of governance, policy and regulation that could lead to a 'good' future of autonomous driving. There are also few studies describe governmental legislative initiatives in several countries (see for example Taeihagh & Lim, 2019). In general, most policy analysis approaches in mobility focus on the inputs and the outcomes of policy-making. Most of these studies treat policy-making as a linear and rational process focusing mainly on the formal institutions while neglecting the processes through which policy objects (and subjects) have come to be. They have little to say about the role of diverse actors in making these policies (Schwedes, 2011). Thus, these approaches fail to adequately reveal latent power struggles as well as black-boxed conflicts, uncertainties in policy-making processes, and to offer opportunities for engagement. Especially, in the case of autonomous driving, studying the processes of *policy in the making* is vital, as it is these processes that determine if and how

any kind of policy will come into place. Subsequently, it is policy that will determine if autonomous driving will be implemented and how. Based on that, autonomous driving represents a crucial case of mobility policy-making in cities, as it combines the uncertainties and conflicts of several new and old actors and technologies.

Policy-making reflects both struggles of competing interest groups and actors as well as broader governance modes, which can be traced through the study of discursive exchange (Hajer, 2009). Fischer and Forester described policy-making as

> *'a constant discursive struggle over the social classification, the boundaries of problem categories, the intersubjective interpretation of common experiences, the conceptual framing of problems, and the definition of ideas that guide the ways people create the shared meanings which motivate them to act'* (Fischer & Forester, 1993, pp. 2) .

Besides the role of ideas and norms conveyed through discourse (e.g. efficiency and competitiveness as core principles), policy-making of autonomous driving, is also (re)shaped by material aspects, such as infrastructure and technologies. For example, self-learning algorithms and machine learning might influence policy-making in unpredictable ways (Bissell, 2018; Elliott, 2018). These material and discursive aspects are interdependent, in the sense that the availability and readiness of certain technologies over others might lead to specific discursive formulations, and thus specific policies for autonomous driving. For example, 5G technologies are currently ready to be implemented, while there are still many open questions about how artificial intelligence, which is necessary for vehicle autonomy, can deal with ethical dilemmas. This might lead actors to discursively articulate 5G as a prerequisite for autonomous driving, and then develop a policy for 5G connectivity infrastructure to prepare the ground for autonomous driving, instead of developing policies for direct implementation of autonomous vehicles on city streets. At the same time, policy change in urban contexts is influenced by the interaction of multiple administrative levels (national, regional, urban) and industrial sectors (automotive, ICT), which are also interdependent. Thus, the central argument of this commentary is that a methodological approach to studying policy-making of autonomous driving in cities should include both discursive and material elements, in order to achieve a more comprehensive (discursive-material interdependency) and thorough (multi-level and multi-sectoral interdependency) understanding of policy-making and how policy change occurs (or not). As Wagenaar (2011) imparts, policy-making is non-linear and dynamic and a precondition of engaging with policy, of affecting it and of changing it is the ability to grasp these dynamics. The objective of this commentary is to propose a conceptual-methodological approach on policy-making of autonomous driving, which focuses on policy discourse, and the multiple actors and technologies involved. For that, it draws inspiration from Argumentative Discourse Analysis (ADA), combining it with elements from Actor-Network-Theory (ANT). Up to today, there have been few studies that combine ADA with ANT (see Mikus, 2008; Beveridge, 2012).

The commentary discusses conceptual and methodological issues tailored to policy-making of autonomous driving, but its insights can also be considered in the context of policy-making and urban governance in general. Given the fact that an empirical analysis of a case study is not provided, a concrete methodological approach that can be applied in any case study cannot be provided, as interpretive methodologies are also shaped by the data at hand. The intention is rather to provide food for thought for future empirical studies on urban mobility policy-making. Following the conceptual framework in the next session, the methodological approach is proposed, and some insights and concluding remarks will follow.

Conceptual Framework

Autonomous driving as an object of policy-making can be seen in two ways. First, it can be seen as a product of policy discourse, socially constructed by human beings. It can also be seen simply as a product of interaction between human and material actors, who are constitutive of each other's contribution to urban mobility policy-making. However, viewing it simply as the product of interaction between human and material elements does not explain everything about its promotion. There is a need to analyse mentalities and the rationalisations that influence these interactions, and the ways these rationalisations simplify and reduce complexity in governance processes. Therefore, this commentary discusses Argumentative Discourse Analysis as the main analytical approach to study policy-making of autonomous driving supplemented by elements from Actor-Network-Theory (ANT).

Argumentative discourse analysis (ADA)

Discourse analysis approaches attempt to understand policy-making processes. A linguistic analysis of policy is not just about what is being said, but also about the deliberation of policy-making and the ways language is used to pursue political and organisational objectives and produce knowledge. When studying socio-technical policy objects, such as autonomous driving, there comes a point when the analysis must move beyond the assessment of language alone and look at the influence of technologies and practices in (re)shaping policy. In this context, Hajer's Argumentative Discourse Analysis (ADA), which rejects a narrower focus on linguistics and includes the practices within which discourse is (re)produced (Hajer, 2003). Thus, Hajer (2006, pp. 66) defines discourse analysis as 'the examination of argumentative structure in documents or other written and spoken statements as well as the practices through which these utterances are made'. ADA adds the performative and practical dimension to the linguistic dimension of discourse analysis by looking at the dynamic processes of meaning production (Hajer, 2005a).

ADA offers a concrete analytical framework of discursive constructions, namely storylines, actor coalitions and practices. As Hajer described, politics is seen as constituted by and constitutive of specific discourse coalitions, who (as actors) come to be organized around a specific policy storyline and a set of practices communicating that given storyline. The key concept here is the storyline, which reflects a specific discursive understanding of a given policy, and thus is communicated by political actors in efforts or struggles to institutionalize their understanding of a given policy in practice. Storylines are short-cut phrases (e.g. autonomous driving as a means of efficiency) that summarise 'narratives on social reality' 'cluster knowledge, position actors and are essential in the formation of coalitions in a given domain' (Hajer, 1995, p. 63). For example, in the case of autonomous driving, a policy storyline could be that autonomous driving provides energy efficiency, which might be co-produced by and within the practice of integrating autonomous driving in the local plan for electric mobility (Freudendal-Pedersen et al., 2019).

Hajer measures the influence of a certain discourse within policy-making processes with the concepts of discourse structuration and discourse institutionalisation. A first level of influence is reached if a discourse establishes the vision of an important discourse coalition. Then if this discursive vision translates into the creation of institutional practices and concrete policy actions, then the discourse is successfully materialised. For Hajer, a discourse is dominant if both criteria are met (Hajer, 2006, pp. 71). However, there are still two main weaknesses with the capacity of this approach to comprehensively study policy change: Firstly, policy change often occurs without its corresponding discourse becoming structured. In other words,

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sometimes policy change occurs simply because the people who want it have power and control over material things, such as technology, or have positional power in a network. Secondly, even if structuration does occur, institutionalization might not happen due to material factors and/or routinized practices. For example, Stuttgart's aspiration to be the world leader in autonomous driving might be hindered by a) physical limitations of its hilly landscape and infrastructure networks, b) objections of people to giving up driving their cars, c) institutional inertia. This implies that not everything is a matter of argumentation. Both these weaknesses have to do with materiality. That is why ADA can benefit from ANT, which takes into account material influences.

Actor network theory (ANT)

ANT provides an approach to studying how social order(s) is contingently achieved through the enlistment of human (individual, collective, institutional) and material (technologies, infrastructure, documents, etc.) actors into relationships called actor networks. It assumes that nonhuman entities have agency too, thereafter hybrid forms of agency define our society (Latour, 1996, 2005). Its core point is that whilst technology is a social construction, society is a technological construction as well. In relation to policy-making, ANT explains how the subjects and objects of policy-making come together (Rutland & Aylett, 2008). Despite what its name suggests, ANT is not exactly a theory, but it represents a methodological sensibility that introduces uncertainty concerning the nature of agency as not being exclusively human by reconceptualising it as 'the ability to make a difference' (Sayes, 2014).

ANT's most fundamental assumption is that entities are an effect of their relations with other entities, rather than inherent properties (Law, 1999). Agency here is acquired and relational, rather than inherent and individually possessed. For example, 'software and hardware developments' (material agency) combined with a modification of the traffic law (human agency) might result in allowing autonomous vehicles to be on the streets. In this sense, ANT assumes that the world is multiple, performative and different from a single pre-existing reality (Law, 1992). ANT can also reveal, to a certain extent, how material things can determine power relations (Winner, 1980). For, instance, V2X technologies might dictate the way road infrastructure (e.g. traffic lights and road sensors) are designed, which would give more power to the ICT industry to steer policies (Stilgoe, 2018), instead of city planners planning based on social and environmental equity. Oftentimes, however, ANT approaches conceive human influence in a limited way, since only direct human actions within a system are considered. The influence of the broader socially constructed beliefs, values and ideologies that inform interactions are barely taken into account (Jasanoff, 2004).

Although many might argue that ANT could make the empirical analysis of the political processes behind autonomous driving apolitical by neglecting the existence of a central figure whose interests dominate, this is not the case. Rather this commentary argues that it is important that researchers acknowledge that policy-makers have outsourced some of their regulating principles, politics, and moralities. This does not mean that asymmetries of power are to be neglected, but rather that the approach aspires to reduce pre-existing assumptions regarding 'who governs and how', and to avoid establishing a-priori distinctions as much as possible. It is about viewing the policy-making arenas as fields of experimentation, where the unexpected variations and surprises of the policy-making deliberation can be revealed (see Gomart & Hajer, 2003; Hajer, 2005b; Hajer & Versteeg, 2005).

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Complementary approaches

Both ADA and ANT can be said to be concerned with the practical aspects of governing, arguing that political discourses only have effects in the extent to which they become practical. However, there is a tension between the two approaches regarding the means through which they seek to reveal this, even keeping the material issue out of the discussion. The key difference lies in the treatment of discourse. Hajer's ADA begins with the premise that discourses and rationalities are constitutive of social relations and actions, and traces how these discourses are produced and re-produced in different contexts and the effects these processes have. Despite the fact that ANT has influenced Hajer (see Gomart & Hajer, 2003; Hajer & Versteeg, 2005), who drew on ANT to provide an account of the simultaneous knowledge production and power relations as performance, Hajer's approach still has the tendency to explain policy change with reference first to the discourse itself and then to turn to a consideration of interactions between policy actors (Rutland & Aylett, 2008). Besides that, in the case of socio-technical objects of policy-making, such as autonomous driving, Hajer's approach does not suffice to take into account the influence of material technological aspects that (re)shape policy-making. In contrast, ANT starts with the premise that discourses are an outcome of networks and explores the processes through which these networks are assembled; it is bottom-up rather than top-down (Beveridge, 2012).

Therefore, the two approaches can be complementary. The concept of 'translation' coming from ANT can be used to complement the more practical, informal, generative and material aspect of storylines production. ANT scholars Callon (1984, 1986) and Latour (2005) refer to the concept of 'translation' as the means through which different rationalities, interests, programmes, and technologies are aligned. Thus, 'translation' is a way of combining an analysis of broader discourses, local storylines, technological artefacts and practices in the policy-making of autonomous driving. Below the author proposes a methodological approach on how ANT could complement ADA in doing empirical research on policy-making of autonomous driving.

Methodological Approach

Combining different methods

This commentary proposes that a methodology for studying the policy-making of autonomous driving, which is descriptive, exploratory and interpretive, following an abductive process of reasoning. This means that theory and concepts develop in relation to the data material at hand in order to explain it. In other words, theory shapes the empirical analysis and vice versa. The approach suggests the deployment of three different qualitative methods (desk research, expert interviews and field observations) and is operationalised through three steps, which can be conducted simultaneously.

As a first step, a desk research is conducted including the analysis of policy documents and media articles related to autonomous driving and mobility in an urban context. The purpose is to obtain an overview of the socio-political and material circumstances as well as technologies related to urban mobility. Thus, the main events and milestones, the main practices, artefacts and actors involved in the emergence of autonomous driving can be identified. Policy documents might include proposals and decisions formally submitted to, discussed and decided by the City Council and the administration, documentation on funding applications for projects on autonomous driving, as well as relevant planning documents that attempt to integrate autonomous driving (e.g. Urban Transport Plans). An analysis of position papers

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from groups and organisations (e.g. NGOs, Automotive Associations, etc.) can also be insightful and complement policy document analysis. Material from different administrative levels (e.g. regional, national, EU) can also be analysed, so that policy practices or events that influence the policy-making on the local level can be identified. Media articles provide a different perspective on formal policy-making processes, in the sense that they often integrate the public opinion, something often left out of formal policy documents and discussions at this early stage of policy-making of autonomous driving. As the following quote from the author's empirical research in Stuttgart indicates, there have not been substantial discussions between policy-makers and citizens regarding the implementation of autonomous driving so far, with the policy-makers arguing that this is because technology is still in an experimentation phase:

> '*We will only inform the citizens and the local society if we start with some pilots on public streets. A big discussion about autonomous driving, what is changing in our society, what is changing in our city…we will have this later'*(Interview with expert from Department of Economic Development of the City of Stuttgart, 2019: pp. 22).

The second step is to study how local actor coalitions are formed, and how they position themselves in the local discourses on autonomous driving through the construction of storylines. This step is also about how the knowledge, values and norms of the actors are mobilized and coordinated, in order to perform practices. For that it is suggested that semi-structured in-depth expert interviews with the relevant actors be conducted. According to Hajer,

> '*the real challenge for argumentative analysis is to find ways of combining the analysis of the discursive production of reality with the analysis of the (extra-discursive) social practices from which social constructs emerge and in which the actors that make these statements engage. This is the function of the concept of "discourse coalition"'* (Hajer, 1993, p. 45).

In order to deal with this challenge, it is necessary to put the subject of the policy actors and their interactions in the centre of the analysis. It is the policy actors in their particular context that articulate statements and make the link between a policy and the outcome of the policy process (Zittoun, 2009, p. 67). That is why this step is the most crucial step for studying *policy in the making* in-depth, as it reintegrates the subject in the analysis. This is the distinctive difference to more teleological approaches to policy analysis, which consider policy in terms of input, output and their causal relations. Especially in the case of autonomous driving, which still lacks a policy framework and there are so many ambiguities about its implementation, the emphasis on the processes of policy-making is crucial. For example, Blyth (2019) shows that the argument 'safety of the driver' might contradict itself, if it practically fails to regulate loss of privacy issues due to big data functions, as people might lose part of their autonomy to being safer. Therefore, while conducting expert interviews, the researcher ought to put emphasis on specific events, practices, ongoing local debates and any form of argumentative exchange between actors.

Autonomous driving in many ways changes the existing policy-making constellation of actors by bringing in new actors (e.g. technology companies, start-ups, etc.), while destabilizing the role of established actors, such as the automotive industry and the public sector. Furthermore, it might change the role of the different administrative levels (i.e. local, regional, national) in the urban governance processes, as it creates new regulatory and legislative requirements (e.g. regarding safety, responsibility, etc.). Therefore, the exact number and kind of interviewees cannot be precisely defined a priori, as it is not clear who acts and how. In this

context, Hajer's Argumentative Discourse Analysis in line with ANT limits relevant context to actors that can be identified in those settings, circumstances and elements that have a concrete and observable impact on discursive struggles and/or result in any form of action. In other words, an actor is not an actor if they do not act in some way within the observed policy-making processes, even if they traditionally have an official position in institutional settings. For example, the Department of Road Construction of a City might not be a relevant actor to interview, if its role is executive and the policy-making of autonomous driving is still on a decision-making level. Thus, the extent of the research object, cannot be defined ex ante, but constitutes one result of the empirical analysis. Practically, this means that the empirical research starts with a list of 'visible' actors identified in the desk research. These actors could be planners, local politicians, public transport companies, automotive industry manufacturers and suppliers, actors from civil society, and engineers that develop autonomous driving technologies.

The third step is conducting field observations through participation in preparatory meetings of dialogue labs and/or platforms, where diverse actors gather to discuss and exchange opinions on the potential implementation of autonomous driving and also identify 'invisible' actors that were not identified from the desk research and the interviews. The purpose of this is to better capture the conflicts, power struggles, and interactive practices among the actors, which might not be adequately captured through the interviews. This way the discursive exchanges and their relations to infrastructure and technologies can be further analysed and elaborated. This is a further step to focus on the subject of the actor as unit of analysis and to methodologically address it thoroughly. It also allows to better contextualise the data obtained from interviews by observing the actors interacting in their specific social and spatio-temporal contexts. In this case, the researcher has a more passive role by being just an observer who keeps notes without actively influencing or shaping the ways actors articulate arguments. Actor-Network-Theory offers a methodological framing for the observation of production and creation of argumentative exchanges and policy processes in general. Combined with argumentative analysis, it supports the 'understanding of the dynamics of policy-making today through a contextually situated, ethnographically rich analysis of policy constellations' (Fischer & Gottweis, 2012, p. 6).

Identifying storylines and working with the empirical material

Storylines are considered as the main analytical category to be identified in the empirical material. Here storylines are understood as a means or resources that actors produce and deploy to convey facts and evidence, and exchange meaning in debates among them. By deploying storylines, actors reduce complexity of the problem of implementation of autonomous driving, gain acceptance, credibility and trust in their narratives. Actors might reproduce a (dominant) storyline to retain and strengthen a given set of institutions, or they might construct an alternative or counter-storyline in an attempt to transform a policy. Thinking in terms of dominant-versus counter-storyline helps to highlight how storylines are produced in relation to each other, and how a counter-storyline only gains its meaning through its relation, or contrast of a dominant storyline (Hajer, 2006).

Storylines are the intermediaries of policy-making processes. As such, they have the capacity to transform, translate, distort, and modify the meaning or the elements they are supposed to carry (Latour, 2005). In the same vain, Hajer claims that all discourse-oriented policy analyses must be based on three interrelated elements: discourse, practices and meaning. While meaning is produced within certain discursive structures, discourses are produced within the context of particular practices. Thus, practices represent the performative dimension of policy-

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making (informed by ANT) and discourse and meaning represent the discursive dimension of policy-making (informed by ADA). However, this does not mean that each of these elements is to be studied separately. In order to analyse policy in the making it is rather necessary to study the three elements as an entity. In other words, discourses, underlying meanings and practices/materialities should be examined together in a creative construction process. Once again it is the storylines shared by the actor coalitions that connect all these elements and enable their comprehensive studying (Figure 1). Therefore, studying how storylines are produced is key to understudying policy-making of autonomous driving.
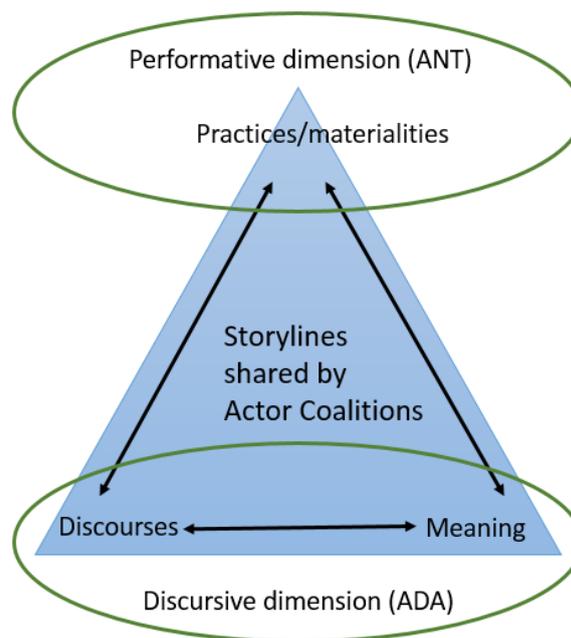
Figure 1. *ADA supplemented by ANT. Source: Author.*

In the case of autonomous driving, the production of storylines is considered as an interplay of local arguments (e.g. last mile solutions), broader discourses (e.g. smart city, competitiveness), actors (new and established), practices (e.g. pilots, tests, decisions) and technologies (automotive and ICT) (Figure 2). For example, investigating how the storyline 'autonomous driving will improve traffic efficiency' is produced and shared by an actor coalition between the automotive industry and a City emerges in a two-fold process: On the one hand, what triggers the collaboration between the actors (performative dimension) is identified in the data. This could be, for example, a new technology for vehicle platooning and/or a pilot programme for developing scenarios of the efficiency potential of autonomous driving. On the other hand, the specific arguments the actors articulate (discursive dimension) are identified. For example, reduction of congestion might be an important argument for the City, and for the industry that they can be a better mobility provider than public transit. Then, by combining the arguments and the practices, the storyline that the actor coalition articulates is revealed.

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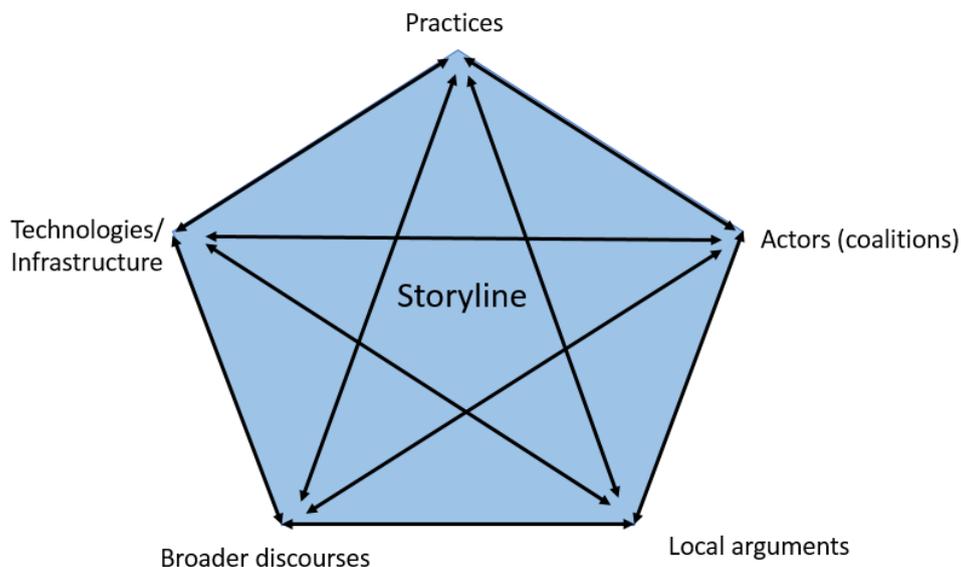
Figure 2. *Combination ADA and ANT for autonomous driving. Source: Author.*

In the data, policy storylines are considered as rather metaphors and/or short-cut phrases that are deployed and shared by actors in an attempt to connect concepts and material aspects that were previously unconnected, in order to develop a common understanding of the topic at hand. In order to categorise and structure the empirical material, six analytical elements, arising from a combination of ADA with ANT, are identified, which constitute and are constitutive of storylines:

- A set of practices or actions they engage in to literally 'do' or produce a storyline. This includes rules, legislation, initiatives, agreements, economic practices, studies, projects.
- The set of material aspects that influence the production of a storyline. These material aspects include infrastructure, technological developments (e.g. hardware and software) and business models.
- A set of events and tipping points that (re)shape the storylines.
- A set of synergies and conflicts between the actors that facilitate or impede the policy-making process.
- The actor coalitions as those specific actors who share a policy storyline in relation to the larger discourse they (re)produce.
- A set of arguments they form to articulate a policy storyline.

Storylines reflect the agency of actors within and in relation to a complex system of governance. It is not assumed that actors are the agents of change, but that they have the capacity to change the conditions and framework through which policy-making takes place. It furthermore seems that policy actors 'act' to not only change policy, but furthermore to 'resist' to change (Tschoerner-Budde, 2019). Furthermore, there are limitations to this capacity of actor coalitions to induce change or not. There is a certain limit to their capacity to navigate into regimes, institutional structures and norms. For instance, there are certain physical structures, technological capacities, already established infrastructure and path-dependencies that interact with, limit or enable the agents' capacity to transform policy through discourse. It

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is about how actors interact with existing policy regimes, how they engage in debates, how they attempt to attach meaning to new technologies. In this sense, the identification of storylines and the analytical elements that are made of can analyse not only policy change, but also policy inertia.

Broader discourses might inform and inspire policy-making, but might just as easily become transformed in processes of translation - come to mean different things in different settings at different times - and/or get rejected because of material and practical factors (Beveridge, 2012). Subsequently, policy-making is context-oriented and takes place in specific socio-material, spatial and discursive arenas. That is why the storylines and all discursive elements identified in a specific context are a product of particular interactions of socio-material elements during a specific period of time, which might be distinct from other socio-temporal and spatial settings. This is illustrated by the following quote from one of the author's expert interviews, which summarises the distinct processes of policy-making of autonomous driving in German and American cities. It shows how the notion of safety is contextualised and translated differently in urban contexts of two countries due to different mentalities, cultures and landscapes.

> '*It is interesting that American cities were really open at the beginning, but after the accidents they are starting to watch it carefully. So, maybe the approach is a little bit different in Germany…we are slow at the beginning, but later we will be maybe more active (…) That is not only for autonomous driving, but for the whole thing about urban mobility services in Germany. It is maybe a little more open in America, while here we are more critical and concerned always about safety (…) Especially in California the topography is different and cities are different, so…culture is different.*'(Interview with expert from BMW, 2018: pp. 23)

Insights and Concluding Remarks

This commentary proposed a methodological approach for investigating the policy-making processes behind the promotion of autonomous driving in cities. Combining ADA and ANT as complementary approaches, it was argued that both discursive and performative (practical and material) aspects are crucial to understanding policy-making for autonomous driving. On the one hand, the weakness of ADA to take into account material aspects that influence policy-making can be 'cured' by the hybrid actor-network analysis of ANT. On the other hand, the failure of ANT to capture broader mentalities and discourses in a comprehensive way and provide a thorough understanding of precisely how actors influence each other can be dealt with by the concepts of storylines and actor coalitions of ADA. Overall, the goal was to provide insights on the translation of broader discourses and local storylines, technologies, infrastructure, interests and actors, in order to contribute to a better understanding of the indeterminate, ambiguous and contested aspects of policy-making.

By re-materialising the concept of discourse, the concept of agency opens up to being attentive to the ways in which human actors and material aspects interact. This way ANT could add to ADA by opening up the conceptualization of actors to include the role of technologies, so that the complex relation between technology and policy can be further elaborated. By doing so, researchers can be open to the uncertainties and the peculiarities of policy-making processes.

For example, automation technologies have already been available since 1921, when the U.S army introduced the first remote-controlled vehicles. Later on, automatic transmission in 1939

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and automated guided vehicles in 1954 became available in the US. However, the first tipping point for the beginning of the computerization of the car was in the 1960s and in the 1970s when electronic cruise control (US), emission control technologies and anti-lock braking systems (Germany) were introduced, following the general development of computers and IT (Kröger, 2016; Kellerman, 2018). This was the tipping point, when the automotive industry and the ICT industry started converging. According to Johnson (2016), what triggered this convergence was the environmental and safety awareness regarding emissions and accidents caused by cars in the 1970s. For this reason, the engineers of that time used computer applications in cars to reach environmental and safety regulatory standards. No one back in the 1970s anticipated the computerization of the car as an outcome of emissions and safety regulations (i.e. Clean Air Act in the U.S.). In other words, the automobile's changes towards increasing computerisation since the 1970s are significantly driven by the regulation of technologies emerging in the 1960s and 1970s (e.g. the combustion engine was regulated because of the emissions). Ever since, there has been increasing convergence of the two industries further accelerated by artificial intelligence (1980s), GPS navigation systems, etc. that are targeting mainly safety, connectivity as well as convenience. The role of policy in the computerization of the car in the 1970s was vital to the development of autonomous driving today. This highlights the unpredictability of policies and the uncertainties of policy-making.

Table 1. Timeline of the main developments in autonomous driving. Source: Author.

1921	Remote-controlled vehicles
1939-1954	Early automation: automatic transmission, automated guided vehicles
1960s-1970s	Convergence of ICT and automotive industry for complying with environmental and safety regulation: Electronic cruise control, anti-lock braking, emission control technologies
1980s-1990s	Accelerating convergence due to artificial intelligence, GPS systems, etc.
2000s-2010s	Integration of computers, sensors, artificial intelligence and communications technologies for AVs

Therefore, policy goals should not be assumed as being flat and given. Thus, they must be studied relationally in how they are co-produced and used by heterogeneous actors in policy-making processes. After all, the institutional inertia, mentioned in the introduction, that the city governments find themselves into can only be thoroughly investigated in parallel with the informal politics and lobbying of the private sector, as well as the particular materialities that allow or impede the implementation of autonomous driving in cities.

Investigating socio-technical objects of policy-making, such as autonomous driving, by using a combined approach of language and materiality, can contribute to acknowledging the political nature, normativity and specific values of the promotion of technologies, and eventually democratizing them. Because that is exactly the problem with both technology and policy. On the one hand, popularizing technology and denouncing its politics usually leads to disconnection of everyday social realities and missed potential for actual change and problem solving. On the other hand, policy often tends to be a means of promoting efficiency and effectiveness, while the political nature of policy-making is hidden by the use of technical language. Techno-centric think-tanks supply public policy-makers with both broad mentalities and specific policy arguments. Therefore, it would be unfair to reduce policy-making to the

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formal decision-making without taking into account the role of infrastructure, technologies and technocrats, just as it would be wrong not to see it as a dynamic product of constant political action and hybrid interaction.

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Examining Cultural Planning in Vienna: The Discursive Institutionalization of Social Infrastructure in Strategic Planning

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Culture and planning have often been connected through issues of culture-led urban development and regeneration or cultural and creative industries. However, cultural provision as a form of social infrastructure has rarely been used to understand the institutionalization of culture within planning practices. I claim that how culture is institutionalized through discursive interactions between different agents reveals the importance of culture for planning practices. I exemplify this notion by analysing the discursive institutionalization of culture within strategic planning in Vienna. The results point to a diametral position of the underlying ideas of culture within planning in Vienna: 1) planning for culture, where culture plays an important role for the social functioning of the city, and 2) planning through culture by using culture as a selling point for the city. The paper analyses cultural planning practices in Vienna since the 2000s, thereby contributing to detailed knowledge on the institutionalization of culture and path-dependent developments of culture within urban planning practices. The paper illustrates the use of culture as a form of social infrastructure for rethinking strategic cultural planning in Vienna.

Keywords: culture, strategic planning, discursive institutionalism, social infrastructure, Vienna

Introduction

Culture-led planning is often criticised for its underlying ideology, where unquestioned structures in society are consolidated through the instrumentalization of culture, thus paving the way for hegemonic positions of dominant social groups and values (Kirchberg, 1992, Zukin, 1995, Evans, 2001, Garcia, 2004, Horton & Kraftl, 2014). Nonetheless it is implemented as an innovative strategy in many planning policies and has become a central concept in development planning (Young, 2008). Although the importance of culture for society is discussed in many contexts, it is used and understood differently. The spatial context is discussed as an important factor in cultural development throughout different disciplinary backgrounds, as the Cultural Turn in the humanities and social sciences (Berndt, 2007; Horton & Kraftl, 2014) or cultural geography show. Space provides the resources with which culture can form. Thus, how space and culture are developed depends on the application of culture itself (Horton & Kraftl, 2014). Particularly in the urban context, culture is an essential element that has been an important characteristic of urban life for centuries (Kirchberg, 1992).

Many planning policies however promote cultural activities primarily for their economic market value to advertise cities in an allegedly growing global competition often at the expense of existing niche cultures. Concepts like the "Creative Class" (Florida, 2002) or the "Creative City" (Landry, 2000) have been popular frameworks for urban politics. However, these approaches also have an unneglectable effect of commodification of culture on society and the urban space (Florida, 2017; Peck, 2005). Thus, how culture is understood, has tremendous effects on the incorporation into planning policies. It is thus crucial to understand the mechanisms behind the current institutionalization of cultural planning. This paper investigates the institutionalization process of culture within strategic planning policies in Vienna to gain insight into the dynamics of culture-led urban planning and the importance of social infrastructure in current planning policy. Taking an institutionalist perspective provides new insights into the dynamics of cultural planning policies and the path-dependencies of planning ideas. This paper refers to culture as cultural activities, understood within their wider context of social relations and embedded into the political, economic and societal system. As such, culture can be conceptualized as a form of social infrastructure, understood as the foundation for socio-material structures in the city (Klinenberg, 2018; McFarlane & Silver, 2017).

Vienna is an interesting case for analysing cultural planning and planning for social infrastructure. Culture plays an important role for the city, for cultural organizations (e.g. international cultural facilities of high culture), and in cultural practices of everyday life (e.g. as decentralized and local cultural activities) (Intergovernmental Agreement, 2015). Moreover, social infrastructure is engrained into planning's self-conception through Vienna's strong social-democratic tradition, as for example the concept of "Red Vienna" at the beginning of the 20th century and the related ideational foundation of the strong local state responsible for social infrastructure provision shows. The social-democratic tradition of the city has led to a strong focus on social infrastructure in the past to support social equity, also including cultural provision throughout the city, which is however undergoing changes of economic and political restructuring (Kadi & Suitner, 2019; Novy et al., 2001).

The paper applies the concept of discursive institutionalism (Schmidt 2008, 2012) to shed light on the processes of cultural planning in Vienna. The analysis shows how predominant ideas, agents and discursive interactions form collective actions and thus become consolidated through different perceptions of culture in planning policies. Lastly, the discursive institutionalization of culture in Viennese strategic planning is connected to the concept of social infrastructure and reflected critically upon cultural planning in Vienna.

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To set the stage for the theoretical examination of current cultural planning practice, it is necessary to define a few concepts presented in this paper. Culture as a concept is very hard to grasp, as Raymond Williams wrote, it is 'one of the two or three most complicated words in the English language […] mainly because it has now come to be used for important concepts in several distinct and incompatible systems of thought' (Williams, 1976, p. 87, in: Horton & Kraftl, 2014, p. 3). Young also states that '[c]ulture is subtle and complex in nature, its concepts are fluid and abstract […]' (Young, 2008, p. 5). To avoid excessive theoretical discussions on the concept of culture, I cite only the definitions important for the understanding applied in this paper, aware of the fact, that these are non-exclusive and there may be many more legitimate definitions.

- Culture can be understood as 'the works and practices of intellectual and especially artistic activity' (Williams, 1976, p. 91, in: Horton & Kraftl, 2014, p. 4). This definition however implies certain implicit and partly problematic values, which predefine the intellectual and artistic activities accepted as culture and those that are not, reflected in concepts like high culture, low culture, popular culture, folk culture or local culture.
- '[Culture] is an immanent construct whose form and substance are comprehensible only in terms of the wider systems of human relationships with which it is bound up' (Scott, 2000, p. 31, in: Evans, 2001, p. 30). This substantiates the claim of understanding culture in a broad context of societal and spatial surroundings, reinforcing the term of the Cultural Turn (Barnett, 1998; Berndt, 2007; Chaney, 1994; Horton & Kraftl, 2014; Jessop & Oosterlynck, 2008).
- 'The dialectic tension between ideas of culture [and arts] are encapsulated in three variants: (1) its anti-capitalist critique; (2) the notion of a whole way of life and therefore culture as civilis-ation/-ing; and (3) its specialisation in the forms and practices that make up the canon of the Arts' (Eagleton, 2000, p. 15, in: Evans, 2001, p. 30).

Culture entails a wide variety of processes, which emphasise its potential role as a critical resource for societal developments as well as a conceptual counterpart to economic exploitation (Miles, 2007; Suitner, 2015; Young, 2008; Zukin, 1995). Thus, culture can be conceptualized as a form of social infrastructure, which forms – together with technical infrastructure – the underlying structure of economy and society, although often being overlooked and taken for granted. McFarlane and Silver (2017) understand social infrastructure as a 'practice of connecting people and things in socio-material relations that sustain urban life' (p. 463) and Klinenberg (2018) talks about social infrastructure being an important foundation of equity, quality of life and social well-being. The concept is rooted in social policy, developing in the first half of the 20th century as a reaction to industrialization and rising social inequalities (Libbe *et al.*, 2010). Thus, social infrastructure can be conceptualized as 'a symbol of specific normative collective values and cultural meanings of a specific time' (Krisch & Hiltgartner, 2019, p. 363). Also, Dourish and Bell (2007) point to the importance of two perspectives on infrastructure: its structuring role for organizing space and society and its underlying role as part of the collective construction of cultural meaning.

Thus culture, in the sense of the works and practices of intellectual and artistic activities, can be understood as symbols of specific normative collective values and cultural meanings of a specific time. Culture should be seen in the context of the social and spatial surroundings, where cultural practices form social relations, thus forming a practice of connecting people and things in socio-material relations that sustain urban life. As a critical resource, culture can provide the foundation for equity, quality of life and social well-being. Thus, culture can be seen as a form of social infrastructure and as an underlying structure of the economy and society with the potential to form a conceptual counterpart to hegemonic formations. How and

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why culture as a form of social infrastructure is institutionalized in planning policies is a reflection of the underlying collective values of culture in society. Examining the solidification of specific collective values within cultural planning sheds light on path-dependencies in planning ideas. This paper continues with the next chapter on connecting institutionalization processes to the specific discourse of culture in strategic planning, which provides the framework for the empirical case. After introducing the case study, I describe the discursive foundation and institutionalization of strategic cultural planning in Vienna and discuss the findings of ideas, agents and discursive interactions leading to the collective action of cultural planning. The paper concludes with a reflection on culture as a form of social infrastructure and its implications for future strategic cultural planning policies.

An Institutionalist Perspective on Cultural Discourse in Strategic Planning

Scholars have previously focused on the connection between infrastructure planning and institutionalization processes for technical infrastructure (Star, 1999; Graham & Marvin, 2001; Steele & Legacy, 2017). However, also social infrastructure is a worthwhile case to investigate dynamics of institutionalization within planning. Both technical and social infrastructure are core areas of planning, which demand a strong theoretical framework to understand the complex dimensions and interrelations within these subfields of planning.

Institutionalist perspective as a method of analysis

The concept of Discursive Institutionalism (DI) provides a useful starting point to investigate not only the process of institutionalization initiated by different actors, but also the process of consolidation through their discursive interactions. It emerged as a critique to other forms of New Institutionalism, which often overstate the role of institutions while undervaluing agency, ideas and discourses (Davoudi, 2018). DI however, connects ideas to agents, provides a framework to investigate their discursive interactions, and puts them into their institutional context (Schmidt, 2008, 2012). DI developed as an approach to understand political processes, in particular to trace how ideas are tied to action. The main argument is that ideas are carried through different agents and form the basis for collective action. The discursive interactions between the agents are placed in a specific institutional context, where ideas have meaning, discourses have communicative force, and collective actions make a difference (Schmidt, 2012) (see Figure 1).
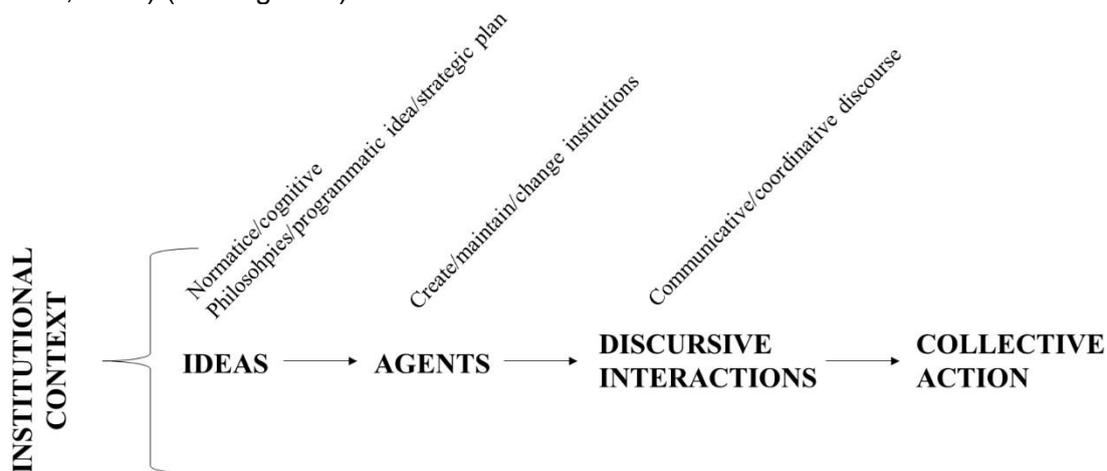

Figure 1. *Building blocks of Discursive Institutionalism; Source: own adaptation following Schmidt (2012).*

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Where and when actors say what they are thinking of doing is determined by the institutional context and is thus the pivotal juncture in the process of institutionalization (Schmidt 2012). For Schmidt (2008), 'institutions […] are simultaneously structures and constructs internal to the agents themselves' (p. 314), thereby not only structuring discourse but also structured by it. Discourse in this sense refers to the represented ideas and the interactive processes by which ideas are conveyed. Ideas can either be normative, where guidelines of interest-based logic provide legitimation for political action, or cognitive, where values are attached to political action. Ideas manifest on different levels – as philosophies, programmatic ideas or strategic plans. They are transported through agents, who create, maintain or change their institutional context through the discursive interaction with which they communicate their ideas – as communicative discourse, which either takes place among political actors engaged in policy debates with the public (including media, interest groups, public intellectuals, social movements etc.) or coordinative discourse, which is constructed among actors involved in the policy process (such as policy makers, government officials, lobbyists, policy consultants, experts or business and union leaders) (Schmidt, 2008, 2012).

According to Sorensen (2015), analysing institutionalization processes is particularly relevant for infrastructure planning, where path-dependencies are a common phenomenon. Thus, understanding how the institutional context develops within infrastructure planning provides insight into stable phases and critical points of change in urban planning. Investigating how culture is institutionalized within strategic planning unravels these dynamics for culture as a form of social infrastructure. This paper thus begins its investigation with tracing ideas in cultural planning policies and the emergence of strategically relevant urban locations within cultural planning.

The cultural turn in planning

Since the mid-80s of the 20st century inter- and transdisciplinary discourses became increasingly important and seen in connection with political, economic and social phenomena, subsumed by the term "Cultural Turn" (Barnett, 1998; Berndt, 2007; Chaney, 1994; Horton & Kraftl, 2014; Jessop & Oosterlynck, 2008). As Horton and Kraftl (2014) state: 'Many social scientists began to investigate some apparently new, significant social and cultural changes in contemporary capitalist economies' (p. 13). The Cultural Turn embodies the understanding of culture as a process and a path for (re)producing values, societal rules and communities and therefore (in)equality (ibid.). Not only is culture embedded in social, political and economic processes, culture is also dependent on physical space and the other way around. Urban planning has picked up on these new trends and has increasingly conceptualized culture as a means for urban development.

Economic benefits of culture led urban transformation have been one of these conceptualizations of culture in political debates at the beginning of the 21st century. García (2004) for instance states, that 'the evolution of a global service-oriented economy has placed culture at the very centre of urban development and has shifted traditional notions of culture […] to a view of culture as an economic asset, a commodity with market value and, as such, a valuable producer of marketable city space' (p. 314). Concepts such as the Creative City (Charles Landry) or the Creative Class (Richard Florida) are popular especially for policymakers since the 2000s. Creativity is considered desirable for politics to secure economic growth, thus making the creative industries increasingly important for local, regional and national economic competition (Horton & Kraftl, 2014). However, the term creative industry emerged only recently and is broadly defined as any economic activity that produces symbolic products that are heavily dependent on intellectual property (UNCTAD, 2010).

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In contrast, the notion of "culture industries" (Adorno & Horkheimer, 1947) emerged as a critique of cultural mass production in the post-war period, as culture and industrial production were at that time deemed incompatible. Today, cultural industries combine conceptual dichotomies (high versus popular culture, mass versus niche culture etc.) and the widely accepted understanding as a sector producing cultural goods and services (UNCTAD, 2010). Cultural and creative sectors are regarded as growth sectors, even during economic crisis (Horton & Kraftl, 2014; Lewitzky, 2005).

Since the 1980s at 'the age of cultural economic policy' (García, 2004, p. 315), culture was recognized as a driver for economic development, regeneration and transformation of urban space. Since the 1990s culture is an integral part of planning practice, however producing an area of tension between 'an obvious diversity of cultures to be found in cities and the one persistently reproduced in planning' (Zukin, 1995, 1996, 1998, in: Suitner, 2015, p. 23). Zukin refers to the symbolic economy, which coincides with Mattl, who states, that 'it is not the City but the image that has to be planned' (Mattl, 2009, p. 21). The symbolic economy combines two means of production: 'the production of space, with its synergy of capital investment and cultural meanings, and the production of symbols, which constructs both a currency of commercial exchange and a language of social identity' (Zukin, 1995, p. 23). The symbolic economy is based on immaterial goods and emerged from the economic change from Fordism to Post-Fordism and the interrelated decline in traditional industrial branches (Miles, 2007). As a result, the cultural economy and cultural tourism have become important factors for urban economic development, thus shaping the predominant discourse. In this sense, culture has become institutionalized as an economic instrument of urban development planning.

Strategic spatial planning

Urban planning and policy have increasingly linked concepts, such as the entrepreneurial city (Hall &Hubbard, 1998) to creative city approaches (Florida, 2002; Landry, 2000) and have placed culture at the very centre of discourse. Moreover, in the 2000s spatial planning scholars in Europe developed a cooperative approach to connect traditional planning approaches to project development, which reflects the reorganisation of the traditional structure of state, market and society (Faludi, 2000). Strategic planning was adapted from economics to establish a structured framework for the until then often incoherent project planning approaches and is characterised by an integrative and development-oriented approach, consisting of the following main features (ibid.):

- Planning is a complex process with various forms of collaboration and instruments, e.g. project development and management. The integration of different disciplines offers learning opportunities, which have previously rarely been seized.
- Strategic planning includes a multitude of actors, thus exceeding the public sector by including private and civic actors.
- Strategic plans function as orientation, coordination and motivation.
- Strategic plans can be categorized into four different types: project plans, urban development plans, selective strategic plans and comprehensive strategic plans.
- Since strategic planning does not originate from traditional spatial planning, there is no conventional spatial focal point. Strategic planning provides foremost a structure, a link between different systems of thought. It is based on interconnections, synergies and intersectoral implementation.

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Strategic plans are criticised for trying to solve their identified urban challenges in a very similar way by promoting key sectors, one of them being the creative industries (Pirhofer, 2005). They may also just provide a grand vision of future developments of a city, wrapped around individual projects, thus providing only a marketing strategy for urban development and often neglecting specific spatial contexts. Thus, providing a structured framework without addressing specific spatial developments, something that strategic planning is often criticized for, risks disregarding power structures within the spatial context.

Cultural planning

The motives to utilize culture for strategic planning often differ. As Evans states, '[h]ow and why culture is planned is […] a reflection of the place of the arts and culture in society, of the approaches to the design and planning for human settlements in the town planning tradition and therefore in the development of urban society' (Evans, 2001, p. 1). Cultural planning is embedded in a broad context of planning strategies and a local-global network. However, the critical question always remains, which culture with which priorities is planned and 'who succeeds with pushing through their vision of a cultural city in politics of planning' (Suitner, 2015, p. 21). Two main types of cultural planning can be identified (ibid.):

- Planning through culture aims at the commodification and culturalization of all areas of life. Cultural characteristics are promoted for economic purposes. A certain consumer culture is promoted for international city competition, tourism and cultural industries, effecting urban space especially valuable for cultural planning.
- Planning for culture regards culture as a phenomenon relevant for all areas of life, which emerges from a societal context, points out differences and fosters a critical element in society. Planning for culture promotes the acceptance of differences, various cultures and their impact and development in the urban space. 'It endows planners with the ability to reveal niche-cultural expression and to support experimental cultures, empowerment, and cultural citizenship' (ibid., p. 20).

The ideational foundation of culture as a strategic planning instrument is rooted in the 1980s. The idea of culture as a planning instrument originated due to global economic changes at the end of the 20th century and the subsequent transformation in urban planning. Thus, strategic cultural planning can be understood as a shift in the discursive interaction between agents, where the structure of discourse moved towards communicative interactions to legitimize policies through the integration of a wide variety of actors, including cultural agencies. Although strategic planning mostly focuses on the development of a comprehensive vision for urban development and thus often lacks a spatial focus, strategic locations of cultural planning still can be identified as conflictive collective actions of valuable urban space for consumer culture vs. niche-cultural locations. Strategic locations of cultural planning policies can therefore be understood as the outcome and a subsequent development of their discursive institutionalization within strategic cultural planning.

Discursive Institutionalization of Culture in Strategic Planning in Vienna

The city of Vienna serves as the empirical case for investigating the discursive institutionalization of strategic cultural planning. Based on discourse analysis, a content analysis is applied to strategic planning documents since 2000, which correlates with the revival of strategic planning (Pirhofer, 2005). In 2000, the planning authorities in Vienna published the first comprehensive strategic plan, the latest one was published in 2014. Urban development plans are published every 10 years since 1984. The analysis focuses on 1) the

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actors which fill the speaker positions; 2) the representatives, addressees and audience of the discourse, and 3) the phenomena being constituted (Keller, 2011).

The collection of data follows pragmatic considerations, concerning thematic and strategic relevance of the documents for urban planning in Vienna. The data includes five strategic documents, which are selected regarding the following attributes: the strategic documents provide a framework for urban planning, are key elements of the strategic planning policies, are available and lastly, are comparable with regards to their relevance and scope for urban planning in Vienna. The evaluation of the data follows interpretative analytics, which focuses on intensive reading and evaluating of the central concepts derived from the theoretical framework, discussed in section 2. The analysis concentrates on the micro and macro level of the documents. The macro level includes the external and formal structure of the document, the authors and addressees. The micro level contains the line of argument, such as the storyline and key concepts.

Cultural planning in Vienna, Austria

The city of Vienna is the political and cultural centre of Austria, federal capital, federal state and municipality all in one. Therefore, Vienna accommodates both nationwide and municipal organizations and agencies. The city is organized in 23 districts, which are divided into inner (1st-9th district) and outer (10th-23rd district) city by the transit route "Gürtel" (see Figure 2). Under the lead of the "Municipal Department 18 (MA 18) for urban development and urban planning", future developments for the city are prepared. Despite the partly only abstract spatial connection in strategic planning, the following figure displays the strategically relevant urban space within the culture-based discourse in Vienna. These locations within the city are at least mentioned in the analysed documents, although a comprehensive spatial strategy for their integration into planning processes is mostly absent. However, they reflect part of the collective action of the institutionalization of strategic cultural planning in Vienna and are therefore relevant for the subsequent analysis.
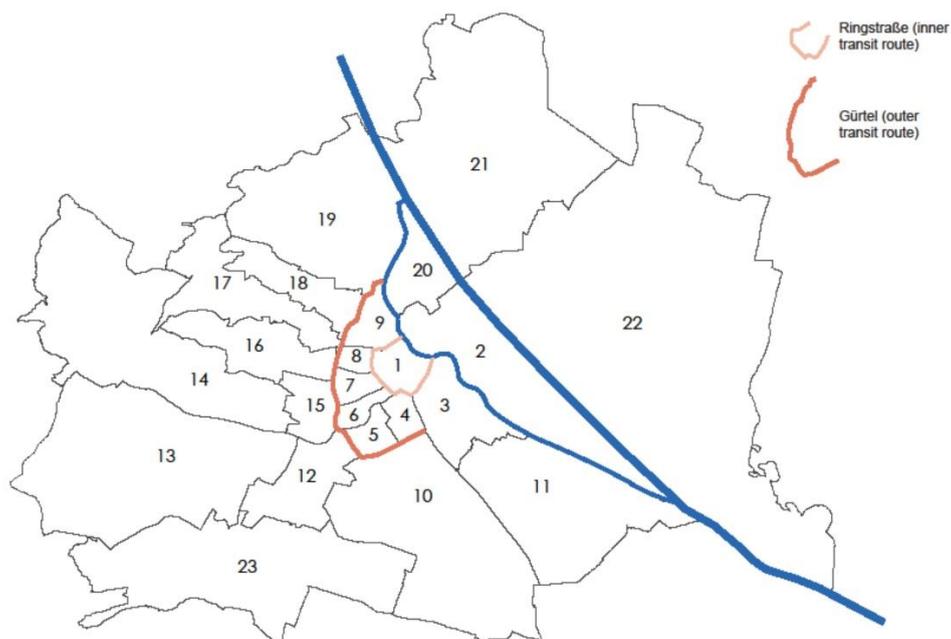

Figure 2. Districts of Vienna with inner (Ringstraße) and outer (Gürtel) transit route; Source: own research based on Open Gov Data (2019).

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The connection of the discursive orientation of the strategic planning documents with its spatial context is especially important regarding the cultural discourse, which condenses in specific locations relevant for strategic planning. Strategic locations of the spatially relevant cultural discourse were taken from the documents, whereas rather distant topics such as nature and green spaces were left out of the analysis. As Figure 3 shows, the relevant locations of strategic cultural discourse in Vienna are predominantly located in central areas for urban development and rarely in decentralized areas. This suggests an orientation of cultural planning in Vienna towards marketable city space, such as the city centre, whereas cultural provision in decentralized areas is often neglected.
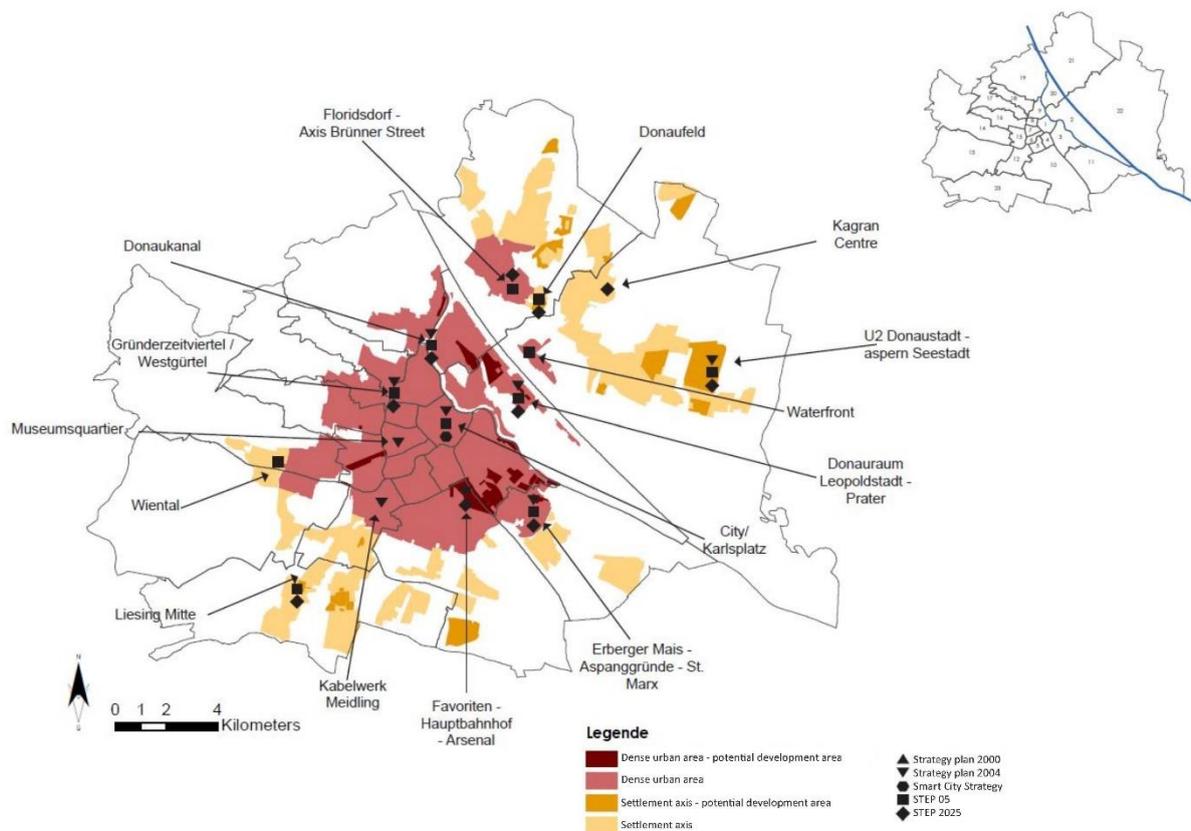
Figure 3. *Strategic urban locations as collective action of the cultural discourse in Vienna; Source: own research based on MA 18 (2000, 2004, 2005, 2014a, 2014b) and Open Gov Data (2019).*

The structure of cultural planning in Vienna

The analysed strategic documents in Vienna all have a rather long impact duration. Urban development plans, like STEP 05, were introduced in 1984 and are since then refined every 10 years. They build on each other's statements and development directions. Comprehensive and selective strategic plans are prepared less often, the first one was introduced in 2000, the last one in 2014. They seek to provide a framework strategy for urban development plans but often fail to connect to the specific configuration of those plans, thus remaining mostly a thematic orientation without specific implementation strategies. Table 1 gives an overview of the analysed documents, their goals, authors and addressees.

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Table 1. Micro and macro level of strategic cultural discourse in Vienna; Source: own research based on MA 18 (2000, 2004, 2005, 2014a, 2014b)

Micro level – Content		Macro level - Agents	
Type	**Main goals**	**Authors**	**Addressees**
Strategieplan für Wien (2000):			
Comprehensive strategic plan	The strategic plan is intended to create an attractive vision for Vienna's future development and provide concrete impetus through strategic projects (MA 18, 2000, p. 2).	City planning Vienna, Municipal department 18, Project team: technical planning experts	Vienna businesses, institutions, inhabitants, regional and European cooperation partners, international organizations and interested parties (MA 18, 2000, p. 3)
Strategieplan Wien (2004):			
Comprehensive strategic plan	Further development of the city as a sustainable way of life; integration of the various existing sectoral models, programmes and projects; priority setting and consistent implementation of strategically important measures and projects for the development of the city (Pirhofer & Stimmer, 2007, p. 156).	Under the authority of city planning of Vienna; Preparation under collaboration of external experts, all municipal departments, strategically relevant funds, institutions and actors	Framework for dialogue and practice of all social groups; invitation to participate creatively in Vienna's development; aimed at science, economy, inhabitants, initiative groups, institutions and administration, cooperation partners at regional, national and international levels
Smart City Rahmenstrategie (2014):			
Selective strategic plan	To preserve and further develop the city as a place worth living in, socially inclusive and dynamic for future generations; resource allocation, quality of life, innovation (MA 18, 2014a; p. 11).	Under the patronage of the mayor Häupl, steering committee of municipal departments, under the leadership of municipal department 18, interviews with experts	Internal effects: Inhabitants, businesses, non-profit institutions, public sector External effects: Vienna positions itself in Europe and in the world as a responsible and stimulating metropolis
STEP 05 (2005):			
Urban development plan	Spatial model of urban development to show where to preserve high quality stock and where urban development is possible and desirable; consideration of economic requirements, safeguarding and further development of the quality of life in Vienna, compact urban structural development (MA 18, 2005, p. 17).	Municipal department 18; Content by municipal department 18; municipal department 22 and Austrian Institute for Spatial Planning	Guideline for administration; orientation for citizens, regional and international investors, project developers, large companies
STEP 2025 (2014):			
Urban development plan	Spatial model of urban development; Vienna as a metropolis in southern Central Europe; city worth living in, robust infrastructures as public responsibility, learning city, city of opportunities (MA 18, 2014b; p. 9, 10).	Municipal department 18; developed by employees of the planning departments of the city of Vienna and external planning professionals, complemented by findings from a consultation process	Internal effects: binding guideline for urban policy and administrations, strategic orientation for urban businesses External effects: interaction between responsible departments of city administrations, districts and other actors (federal government, federal states, neighbouring municipalities, businesses and real estate developers)

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The structure of the documents suggests a change in the cultural discourse of the strategic plans in the last 15 years from the inclusion of culture in many different areas relevant for planning to a concentration on specific elements of culture for urban development. Particularly in the comprehensive strategic plans of the early 2000s, it is clear from the broad structure of the documents, that it is intended to include as many areas relevant to planning as possible (see main goals of the comprehensive strategic plans Table 1). However, the documents of recent years, such as the Smart City Strategy, tend to concentrate on specific elements of urban development, such as technological development through innovation (see main goals of the selective strategic plan Table 1).

Whereas the comprehensive strategic plans consisted of five areas of activity, one of which was dedicated to the "promotion of science, education and culture" (MA 18, 2000, p. 4), the areas of activity in the Smart City Strategy decreased to four, none of which dedicated to culture. The area of activity "innovation" consists only of research, technology, economic development and education (MA 18, 2014a, p. 59).

The same is true for the urban development plans, where the areas of activity decreased and the thematic orientation of the cultural discourse moved from the inclusion of different functions for urban space, such as local recreation, social and cultural functions, orientation and identification with the built environment (MA 18, 2005, p. 22) towards innovation, technology, economic and research development (MA 18, 2014b, p. 68).

Agents of cultural discourse in Vienna

The strategic plans attempt to form a basis for exchanging ideas between various agents, which, above all in the cultural policy debate, should initiate an intersectoral effect within city administration and lead to an integration of culture in all areas of life, similar to the claims of the Cultural Turn.

Public actors predominantly determine the discourse. Particularly in earlier strategic plans, a wide variety of actors and groups within the public administration were involved in determining the direction of the discourse, making it possible to pass on information and knowledge directly to the stakeholders relevant for the implementation process. The department for cultural development for instance took part in the preparation process of the strategic plans 2000 and 2004. However, it was no longer involved in the Smart City Strategy development process in 2014 due to changing thematic orientation in favour of technological urban development.

This raises the question if cultural agendas and agencies are no longer classified as relevant for urban development purposes, thus being represented neither in terms of content nor personnel in more recent strategic documents of urban planning. At the same time, however, other actors, such as the tourism agency, are given an important position as authors in the agendas of cultural urban development, which suggests a shift of hegemonic interests in favour of semi-public agents.

The actors who determine or reproduce the discourse reach beyond the public sector. All strategic plans show a certain openness in their constellations of actors. This may provide more scope for action through informal and less defined regulations, however the implementation power and effect of the strategy fades through lacking responsibilities. The strategic plan 2000 for example still defines concrete strategic projects for certain urban locations and thus also distributes responsibilities, whereas the Smart City Strategy lists culture-based projects only as individual activities, such as cultural interim use, strengthening

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the subcentres and neighbourhoods or the construction new cultural buildings without indicating precise responsibilities (MA 18, 2014a, p. 84). Thus, there is reason to assume, that addressing and reaching a diverse range of private actors is rather a political goal than actual planning reality, particularly in more recent strategic plans.

Storylines of cultural discourse in Vienna's strategic planning

The storylines of cultural discourse are traced through recurring key terms and concepts (Figure 4). The size of the point signature shows the frequency of the recurring key terms linked to culture, either explicitly (e.g. through the notion of the creative industry) or implicitly through the use of synonyms (e.g. education or diversity through cultural development).
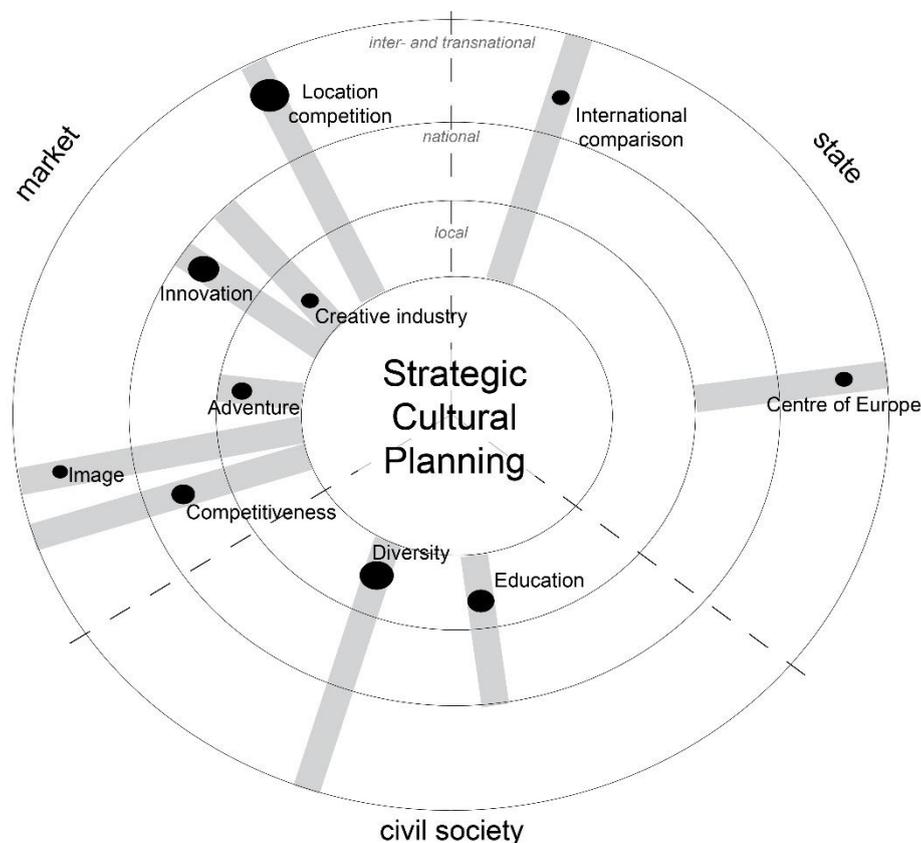
Figure 4. *Predominant discourse of strategic cultural planning in Vienna; Source: own research based on MA 18 (2000, 2004, 2005, 2014a, 2014b).*

The comprehensive strategic plans refer to culture as a means for location competition and innovativeness. Vienna's international reputation as a 'city of art, science and life culture' (MA 18, 2000, p. 6) is the main argument for maintaining and developing the quality and prestige of the city by focusing on developing cluster segments, which are 'in fierce competition with other European cities. This competition requires more intensive efforts to improve the quality and image of Vienna' (ibid., p. 20). Competition and image are decisive driving forces for Vienna's urban development.

In addition to technical and scientific fields, the artistic field is described as part of the production of knowledge, on which innovations of urban society are based that need to be strengthened and further developed to 'create an open climate and support people's creativity

and willingness to experiment' (ibid., p. 6). Culture is also perceived as a consumable unit that gives the city a certain quality of experience. The city is described as a 'living and experience space' (ibid., p. 8), which must be further developed. Vienna's strong cultural image and the quality of its urban offerings must be further optimised on a spatial level 'by urban development and urban planning [...] in conjunction with all urban political fields of action such as the economy and housing, urban regeneration, transport, social affairs, culture, health and environment' (ibid., p. 8).

The biggest change within the strategic plan 2004 is the focus on the cultural and creative industries, which are repeatedly treated as main topics throughout the document. By expanding the creative industries, 'the development of unique selling points for Vienna as a quality location should be guaranteed' (MA 18, 2004, p. 53). In addition, the special position of Vienna in the field of culture is emphasized in an international comparison, which has 'not yet been adequately recognized as an economic asset' (ibid., p. 55). This suggests an economic orientation in the cultural sector, which should emphasise Vienna in an international comparison and strengthen the urban economic structure.

In the Smart City Strategy culture is rarely explicitly mentioned. This may be related to a change in the self-conception of planning, where technological developments seem to take on a higher significance than art and culture. However, one passage was adapted from the strategic plan 2000 almost without any changes: 'Art and culture are essential social driving forces and represent an integral part of the Smart City Vienna 2050' (MA 18, 2014a, p. 20). This raises the question if culture is primarily used as an innovative boost for urban development, dominated by international competition and location comparison, suggesting a tendency towards planning through culture. However, the particular modalities of cultural urban planning and the way culture is to become an integral part of the Smart City Vienna 2050 are not clarified.

The urban development plans provide a more concrete spatial strategy for cultural planning. Although in STEP 05, competition between cities is also a relevant topic, it is also noted that economic competition criteria alone are not sufficient to grasp location policy in a long-term perspective. 'It is therefore still necessary to ensure spatial and social accessibility and permeability [...]' (MA 18, 2005, p. 51).

Access is a frequently recurring theme in STEP 05, especially in connection with culture as a factor for the quality of life. All residents should have equal opportunities for a 'meaningful life through access to cultural facilities' (ibid., p. 17). Culture is also understood in the sense of sustainability in order to preserve and further develop the city and its diversity of forms. According to STEP 05, culture and art are important factors that create identity and initiate social developments, making them necessary resources for the future development of the city (ibid., p. 25).

Innovation through cultural development is also important, especially connected to the creative industries, which should help to build Vienna's image and make the city an 'attractive and representative address' (ibid., p. 124). The creative industries are regarded as a field of hope for spatial policy (ibid., p. 85).

A separate subchapter devoted to the topic of "spatial aspects of culture" explicitly defines culture as 'the confrontation with and shaping of the natural and social environment' (ibid., p. 84). Contrary to all other examined strategic documents, culture is unambiguously defined

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here and, in the sense of the Cultural Turn, regarded as a unit that permeates all areas of life and represents an essential determinant for the quality of life, linking it directly to social infrastructure. This understanding of culture can also be seen in the promotion of district culture, where decentralised cultural work is given high priority (ibid., p. 85) in order to guarantee social and spatial accessibility to cultural provision.

In the latest urban development plan, STEP 2025, creative work in Vienna is given high priority due to the central location and international network of the city. 'Regional cooperation and international networking strengthen the metropolitan region of Vienna as a central European area' (MA 18, 2014b, p. 11).

The key concept of location competition is again particularly present. Not only is Vienna 'one of the fastest growing metropolises in the German-speaking world [...] and in international comparison [...] a city worth living in' (ibid., p. 14), it is also 'an economic and cultural hub in the centre of Europe' (ibid., p. 14). Therefore, its 'position in the competition of European cities [...] can be rethought' (ibid., p. 14). 'It is no coincidence that Vienna is among the leaders in a number of international rankings' (ibid., p. 18), but partly because of its outstanding cultural urban life. 'Cultural activities are an important factor in urban development' (ibid., p. 21).

This outward oriented strategy for cultural planning is also supported by statements such as 'space for education in good places', fostering an "attractive city" (ibid., p. 22) to draw in 'talents from all over the world' (ibid., p. 23). The focus on the international recognition of the city gives the impression that the manifold forms of lifestyles, the different offers of learning, cultural exchange and social commitment as a location factor for the international city and location competition are much more significant for urban planning than the promotion of the endogenous potentials of cultural diversity to enable cultural development.

The institutionalization process of culture in Vienna's strategic planning

As the analysis of the strategic planning documents showed, culture is an important concept in strategic planning in Vienna. The ideational foundation of cultural strategic planning in Vienna has changed in the last 20 years from including culture in many aspects of planning (e.g. in the strategic plans 2000 and 2004 or STEP 05) to focusing on culture as a means to attract tourists and investors (e.g. in the Smart City Strategy and STEP 2025). These changing ideas of culture as a means for national and international city competition, boosting innovation and creative industries have intensified over the years. Although these ideas solidify a grand vision for the development of the city by reinforcing planning through culture, the conflicting position of planning for culture through the promotion of culture as a reflexive and empowering tool for more diversity is also present. Culture is often seen as a contributor to society's sense of identity, which influences the perception and association with the city and empowers people to reflexive and innovative potentials. This diametral planning position towards culture as a driver for urban transformation can be repeatedly found in cultural planning in Vienna.

Culture seems to be a suitable instrument for developing common perspectives in all analysed documents. However, tangible planning strategies for political administrations are often lacking, hence making cultural planning a political desire without tangible implementation. The focus is primarily on image planning and creative industries to promote the economy, rather than developing planning strategies for urban culture. Thus, these policies fostering the image of a creative city can only add a lifestyle component to the already established system of the city's competitive strategy, which, however, does not affect the fundamental challenges of a modern city.

Lastly, only STEP 05 offers an explicit definition of the concept of culture and connects it to social infrastructure whereas all other examined strategic documents lack a common understanding, thereby leaving the planning process open and flexible for unpredictable developments and experimental cultural projects but simultaneously risking arbitrary prioritisation based on power asymmetries among stakeholders. The critical question remains, if mostly decision-makers profit from this lack of differentiation and if cultural planning is therefore steered in the direction of the most promising discourse.

The empirical and content-related foundations of ideas in strategic cultural planning have decreased over the last 20 years, suggesting a less comprehensive basis for the discursive institutionalization of culture within strategic planning. Similar tendencies can be found in the representation of agents, where the multitude and diversity of involved municipal departments and other stakeholders was reduced with each strategic plan. These dynamics suggest a changing dynamic of discursive interactions between agents towards a coordinative discourse, where the focus is on the coordinative construction of cultural policies opposed to the initial objective of strategic planning to open up the discursive decision-making process to a wide variety of actors. Thus, the institutional context of strategic cultural planning in Vienna provides a setting of predominantly economic-led cultural development for promoting Vienna as the cultural capital in an allegedly growing global competition, communicated through the coordinative discourse between mostly policy-makers, thereby solidifying strategic cultural locations mostly in the city centre and established cultural urban space.

Culture as social infrastructure to rethink strategic cultural planning in Vienna

Culture is an important factor in planning policies in Vienna, as the analysis has shown. Simultaneously, social infrastructure is ingrained in urban policy as Vienna has a strong socio-democratic tradition. However, culture is only implicitly connected to social infrastructure in reference to cultural development for educational purposes and rarely explicitly mentioned as a form of social infrastructure itself, despite both concepts being important factors for urban and social life. The irresistible attraction of the creative city is overpowering the notion of social infrastructure, as the urge for measurable growth represents hope in the knowledge economy and for a socially inclusive and sustainable development and prosperity.

The notion of social infrastructure however makes its essential and necessary character of mostly unnoticed structures in society visible, which cannot be measured in exact terms. It points to its indispensable position in society and the city and to the need for an overarching planning strategy to make structures of social infrastructure accessible for all by all. Thus, instead of promoting urban locations with the highest economic benefits, such as the city centre, acknowledging culture as a form of social infrastructure may foster an understanding of the importance of decentralized cultural provision and access for all.

By recognizing culture as a form of social infrastructure, strategic planning has the potential to provide a framework, where culture as a complex image of different social realities is met by a differentiated spatial planning strategy through the incorporation of the notion of social infrastructure. As for technical infrastructure, where for example transport routes are uncontested essential structures for everyday life, cultural provision and activities are essential structures for social cohesion and exchange of different positions and thus the social functioning and development of a city. The framework of strategic planning in this respect seems promising through its open structure. However, it needs further reflexion on its purpose and implementation strategies. The concept of social infrastructure and its roots in social policy

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could be a starting point to bring the importance of culture for social well-being back to the centre of planning debates and foster a more inclusive planning position towards planning for culture. Moreover, it could enable planners to promote niche-cultural and experimental expression to foster a diverse cultural urban life.

Conclusion

Culture has become an important factor in urban planning since the 1980s. Particularly for strategic planning, culture provides a useful tool since the 2000s to institutionalize specific planning ideas. The paper examined the institutionalization of culture within strategic planning in Vienna, the solidification of specific collective values within cultural planning policies and path-dependencies within cultural planning practices. The concept of discursive institutionalism proved to be a useful tool to uncover specific dynamics from different perspectives by placing equal emphasis on ideas, agents and discursive interactions.

The analysis uncovered path-dependencies of commodifying culture for urban policy purposes since the 1980s in Vienna. Although since the beginning of the 2000s, rather elaborate strategies were prepared to direct cultural urban development, the reoccurring concepts of national and international city competition, innovation, creative industries or diversity have rarely changed since then. The decrease in empirical and content-related foundations and diversity of actors reinforces the chosen path of planning through culture by commodifying cultural development. The underlying philosophy of strategic cultural planning was pushed by economic changes, which triggered socio-cultural and socio-economic changes and facilitated the institutionalization of newly emerging values of culture for economic growth and marketable urban development. The programmatic idea of strategic planning as a framework for future urban development made the conflation of traditional planning approaches with project planning possible. These dynamics were invigorated by the changing constellations of agents shifting towards a decreasing range of policy-makers and private actors, and coordinating policies through self-reinforcing interactions. Thus, planning through culture shows path-dependent structures within the Viennese planning policies, which are rooted in the economic shifts of the 1980s and were intensified through political shifts in the 1990s and 2000s.

However, also the opposite position of planning for culture is path-dependent upon the critical stance of the Cultural Turn, which prevailed throughout the last 40 years and was present in every analysed planning document in Vienna, at least until the Smart City Strategy, where a different thematic orientation of technological-led urban development took over. Due to an increase in agents supporting the technological arguments of urban development since the 2000s, there is reason to assume, that the cultural agenda will even further diminish in the years and strategic plans to come.

In today's cultural strategic planning in Vienna, culture is predominantly seen as an economic resource and rarely as a critical and democratizing element in society. Reflecting on culture as a form of social infrastructure and its origins in social policy may help to strengthen the position towards planning for culture in future urban planning policies, thereby facilitating a change in planning itself. Through engaging in the critical, reflexive and empowering role of culture, the underlying collective values of culture as a form of social infrastructure could lead to a different institutionalization process in planning policies. Opening the discursive interactions towards a more communicative discourse by involving a wider range of actors, perspectives and urban locations may foster a planning reality for planning for culture rather than a grand narrative for marketing the city to the outside world.

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Balloons to Talk about: Exploring Conversational Potential of an Art Intervention

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Relational approaches to urban development have gained ground in academic literature, highlighting diverse perspectives, such as experience, participation, aesthetics, performativity and affection. However, these practices neglect conversation as a connection between local everyday life and urban development. We argue that as art generally provokes discussion, material art acquires potential to question urban development and thus, act as a conversation mediator in public space. To test the hypothesis, we organised an explorative action research study: a data art installation within the annual 'Oulu Night of the Arts' in August 2017. The installation illustrated spatiotemporal analysis of everyday life in Åström Park, Oulu, Northern Finland. The art intervention succeeded in engaging diverse social groups online and on-site, although it proved challenging to evoke focused conversations. The induced discussions bore relevance to everyday realities in the locality. If public discourse on urban environment concentrates solely on municipal urban planning projects and visible new constructions, we risk creating a misconception of them being superior to mundane everyday life. The study suggests that even tentative information without specific objectives, when presented in a public data installation, could prove valuable for urban development discourse.

Keywords: Everyday life, art interventions in urban development, action research, spatio-temporal design, performative urbanism, new urban aesthetics

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Introduction

In recent decades, scholars have turned towards relational concepts in urban development to correspond to the current urban complexity, and have found new focuses upon processes, actors and dynamics (Tornaghi, 2015; Wohl, 2017). These are in line with de Certeau's (1984) notion of everyday life unfolding through practices and performances instead of systems or structures and Lefebvre's (Lefebvre & Nicholson-Smith, 1991) idea of urbanity as lived reality and socially produced entity. The more recent scholarly discussions include 'affective turn' in social sciences (Clough, 2007) and non-representational approaches to the city (Thrift, 2007; Buser, 2014). The new developed relational approaches touch upon – in varying mixes and emphases – actor-orientation, contextuality, eventuality, ephemerality, experiments, participation, open processes and temporary uses (Lehtovuori & Ruoppila, 2017). A distinguished literature strand discusses art and culture as key to actor-oriented urban development (Sacco et al., 2014). Art bonds people with places and underlines local qualities (Hall & Robertson, 2001); it creates a local identity and enables empowerment (Miles, 1997).

We argue that art could act as a mediator between diverse stakeholders in urban development. Art generates a sense of place (Marques & Richards, 2014), which predicts arts' potential to become an urban conversation opener. Despite the growing interest of art in urban regeneration (Anderson & Holden, 2008; Miles, 2005) and urban development (Evans, 2002; Garcia, 2004), there are few to no studies on conversation provoked by art in urban development. Cultural interventions in public space have proved to be important incentives for civic debate (Altrock & Huning, 2015). The action research study presented in this paper proposes a data art installation as a mediating piece for urban conversations. We apply art to enliven public space and question urban issues. In this paper, the concept of 'art' defines urban material or immaterial interventions. Our hypothesis is that disrupting materiality of a public space provides a basis for conversation. Choosing art as our means for our spatio-temporal design piece enables both material and temporal disruptions, and questions local urban rhythms. We rely on the research on performative urbanism (Altrock & Huning, 2015; Kremer, 2011; Samson, 2015) in our case study design, while borrowing elements from new urban aesthetics (Viderman & Knierbein, 2018; Wunderlich, 2013) and experiental urbanism (Lehtovuori, 2016; Lehtovuori & Ruoppila, 2017). Performative planning has roots in art practices of the 1940s (Kremer, 2011). Performative practices cover a range activities, acts, performances and temporary installations having in common that they work in the urban realm through processes of engagement (Samson, 2015). Performative planning eases the integration of marginalised groups to planning processes outside of public representation (Kremer, 2011). We seek to map this ground of provoking new ways to act through the materiality of the case study installation.

We focus on the dimensions of outreach, conversation and inclusion through a data art installation. While performative practices by definition avoid public representation (Kremer, 2011), in the pilot project, we apply simplified, everyday life information. Massey (2005) and van Holstein (2018) remind that communication on urban development should encourage subjective experiences rather than municipal expectations. A substantial participation requires a variety of everyday life activities, including both informal contributions and official roundtables (Thorpe, 2017). The case study art installation presented in this paper attempts to present data collected from its location as a conversational starting point. Whereas conventional information visualization emphasizes the effective understanding of data, in our study visualization serves as enhancement of data, which supposedly supports the acquisition of knowledge (Li, 2018). Data can be seen as evidence, which, in an ideal case, offers a basis for urban development (Davoudi, 2006).

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Within the theoretical background, we develop our argument by distinguishing both productive and obstructive conversational characteristics of intervening with a data art installation in contemporary urban setting. Subsequently, we explore the hypothesis with an action research study that was conducted as a data art installation in 'Oulu Night of Arts', August 2017 (Figure 1). The case study was implemented following a three-phased Field Action Research method. Based on the preliminary findings of our case study, we discuss the abilities and limitations of art installations as conversational devices. Our research inquires the potential of a material, artistic object to connect the space and the process, align urban dwellers and their embodied experiences with the representational, meta-level urban processes that planners conduct. Finally, we propose art as a yet unexplored means of urban conversation opener.

Figure 1. Art installation in the annual event Oulu Night of Arts in August 2017. Installation of 3600 balloons acts as a case study in this paper, providing an empirical case to discuss the development of a new, conversational planning tool. Source: © 2017 Authors.

Conversational Dimensions of Performative Practices

Rational-comprehensive planning applies its instrumental rationality to control and regulate the city; to reach rigid, hierarchical and mono-functional patterns (Wohl, 2017). It addresses urban issues through master plans and blueprints, reducing the urban to a flat geometry within the Euclidean conception of space (Graham & Healey, 1999) and linear understanding of time (Miles, 1997). In order to tackle these deficiencies, the relational focuses in recent academic discourse have ranged from process and role of urban planner to reception by users of space (Lefebvre & Nicholson-Smith, 1991; Massey, 2005; Healey, 1997; 2003; 2007; Latour, 2005; Tornaghi & Knierbein, 2015 ; Silva, 2016).

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The communicative turn in urban planning (Innes, 1995; Healey, 1997; 2003; 2006), pursued inclusion of diverse stakeholder interests, reframing urban planning practice into a 'soft' process of mutual learning, interaction between multitude actors (Faludi, 2000). In Finland, this is still the paradigm that official planning processes most often follow: the communal administrations need to arrange common participation in urban planning by law, but the preparations differ depending on cases (Tulkki & Vehmas, 2007). Despite the processual inclusion, communication-oriented process is often insufficient, although planners acknowledge its necessity (Thorpe, 2017). Despite their differences regarding the stakeholders' role, rational-comprehensive and communicative planning are both representational processes. Intervening with a data art installation in contemporary urban setting relies on reception through non-representational experience, but we argue that interventions still possess representational, more specifically conversational potential.

Conversation through temporal disruption

By definition, performative planning uses disruption as a tool. It sets stage for stakeholders themselves, raises attention, interrupts everyday uses, and initiates civic involvement in redefining places (Altrock & Huning, 2015) – often in a concrete, physical interventions (i.e. Kremer, 2011). It introduces design as an artistic object of unstable meanings and seeks potentials rather than functions (Samson, 2015). Therefore, temporary practices bring up a type of spatio-temporal production that is different from linear rational-comprehensive planning. Municipalities have started to apply temporary events, scenic arrangements and cultural interventions to achieve public participation within urban development processes, self-promote their localities via place-branding with decreasing public investment (Citroni & Kärrholm, 2019), or activate underused properties (Lehtovuori & Ruoppila, 2017; Webb, 2018). Through culture, municipalities wish to reach a variety of objectives, combining economic benefits, increased extern investment, tourism and employment to social profits while contributing to place distinctiveness, eventfulness and reduced vandalism (Hall & Robertson, 2001; Evans, 2002; Garcia, 2004). In the furthest sense, this can lead to completely evolutive urbanism, where urban dwellers are the sole stakeholders: tactical urbanism (Wohl, 2017), also known as guerilla urbanism, pop-up urbanism, city repair, or DIY urbanism, although these are not exact synonyms (Talen, 2015; Wortham-Galvin, 2013). Tactical urbanism reacts opportunistically to immediate needs as bottom-up processes (Silva, 2016). Temporary interventions act as urban catalysts, developing the place via ruptures in time; for example, through impulses for future uses, subversions of existing uses or pioneering new types of urban use in evolving areas (Lehtovuori et al., 2003; Oswalt et al., 2013). This widens the sphere of public engagement, tests aspects of urban plans and expedites implementation (Lydon & Garcia, 2015).

Urban development via evolution introduces stakeholder experiences as meaningful. This is often the case for temporary urbanism (Madanipour, 2017) and experimental urbanism (Lehtovuori, 2016). However, when aiming for change – as conversation does – some disruption is necessary. In this, we rely on Ernwein and Matthey (2018), who show how disruptive encounters offer citizens 'new material affordances aimed to enhance and transform the modalities of their attention from the perspective of influencing their intimate, embodied ways of knowing the city'(ibid, p. 296). This forms one of the premises or our art intervention: in order to gain momentum, short-term interventions have the potential to act as disruptive force. This has also been noted within culture-led regeneration: ephemerality of urban events eventually poses no contradiction to long-term, administrative urban planning either, but rather, it represents an essential part of urban development processes, especially where

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culture is involved (Garcia, 2004). When urban interventions are intended temporary, they perish from the locality and provide space for continuous urban activities (Madanipour, 2017).

Material and situated conversation

The interest in experience of urban spaces has aroused specific discussion on the characteristics of urban life, where space and time are intertwined – resulting in new urban aesthetics. Wunderlich (2013) describes the ideal urban experience as smooth and flowing experience, where persons actions are in accordance with the mood and tempo of the place itself. For Wunderlich, experiencing the space-temporality as a meaningful phenomenological experience requires unity between the person and the surroundings. Experienced urban life becomes 'a work of art' in itself when there is unity.

Through offering a clear distinction from the unified everyday experience, interventions demand new bodily routines and new ways to act. Seen from the experiential viewpoint, bodily encounters, tactility and the promise of immediacy – not only verbal narratives and representational discourses promoted by communicative planning practices – are key issues in urban transformations, be they short-term or permanent (Viderman & Knierbein, 2018). Physical public spaces are the ideal media for reaching the local community. Urban materiality is more-than-representational in itself, making it an experiential subject (Citroni & Kärrholm, 2019).

The need of material and temporal disruption in order to be able to question urban rhythms serves us as a background for choosing art as our means. As art relies on affect, emotion, gaze and experience (Pløger, 2015), it provides for a sense of place (Marques & Richards, 2014). At the same time, art projects are laden with educational value and potential for discussion. Art practices with their material dimension within a local situation become performative spaces themselves. Site-specific installation art and architecture are spatial by definition and therefore similar (Liekens, 2009). However, art installation de-stabilises the meaning of architecture, traditionally focusing on formal appearance and functional problem solving. Architecture has more potential at its edges: it should 'facilitate and provoke multiple readings, uses, events and thoughts' (Liekens, 2009, p. 611) instead of postulating determined answers.

Mediated conversation

Whereas the body has the capacity to affect and to be affected by the urban environment, the effect can be increased or diminished through technologies and media (Samson & Juhlin, 2017). Data is one medium, but the experience itself is another. Through visualisation, information becomes more understandable (Li, 2018) and the social context offers new dimension of knowledge. Differing from the in-situ experience, the contemporary conversations are multi-located, glocal, which further justifies a disruption in the flow of urban space through the installation. This is exemplified through social media research. Social media entices to share highlights of everyday life – thus pleasant disruptions in the everyday flow are shared. The content of social media has recently provided a new, still developing method to map urban experiences and opinions (Cerrone et al., 2018). Following the logic of social media, a disruptive element in urban space has potential to circulate beyond its physical location.

Representational, communicative practice is increasingly distanced from the everyday life dealing with the glocal phenomena, namely global-local transactions (Horelli, 2013).

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Communication within urban development processes needs to meet the current preferences, including social media (Ertiö, 2015; Nummi et al., 2018) yet participatory e-planning is still outside the mainstream urban development (Horelli, 2013). Meaningful participation would necessitate both informal and official formats of communication (Thorpe, 2017)

Method

Authors of this paper conducted a pilot intervention within the Oulu municipality event network and University of Oulu, School of Architecture academic curriculum. This pilot project unfolded as a 12-hour art installation, constructed of white air balloons, in 'Oulu Night of the Arts' 2017. The summer course at Oulu School of Architecture applied pedagogic action research (Tornaghi, 2015), starting as a spatio-temporal analysis of Åström Park in June 2017 and resulting in art installation in August 2017. Ten master and bachelor students identified ways of collecting data and presenting it in public space via a data sculpture.

We followed Field Action Research (FAR) method (Katoppo & Sudradjat 2015). The model includes a preliminary Field Research phase, the actual Field Action Research (FAR) with a prototype, and finally, measurement and evaluation of the intervention. All phases are conducted in the social context. (Katoppo & Sudradjat 2015) The model described above proposes a method for architectural research, and although our pilot project represents a temporary construct, we regard it as an architectural edifice. The summer course students attended all three phases under supervision of the authors within the pedagogic action research (Tornaghi, 2015). The preliminary Field Research period took place in July 2017 as a spatiotemporal analysis of Åström Park. The students of the summer course observed the life in the park for 12 hours, working in shifts and pairs. Ethnographic, quantitative and qualitative observations were noted down on log sheets, photographed, video-graphed and voice-recorded (Gehl & Svarre, 2013). This analysis resulted in a data basis for the art installation.

The Field Action Research (FAR) phase introduced our art-based pilot project in the actual social setting: Åström Park, where the initial field research was conducted. The data installation represents the collected raw data, visualising the everyday life of the park. The art intervention itself endured for one day, August 17, 2017, at annual 'Oulu Night of the Arts'. The authors and/or student assistants were present for the whole 12-hour-period of the art intervention, during which they interacted with participants of 'Oulu Night of the Arts' and collected data on-site. In addition to on-site conversations, we encouraged the participants to discuss online with our own social media hashtags (#datapilvi, #ilmapalloteos) and existing event hashtags (#ouluntaiteidenyö, #ouluartsnight, #oulunjuhlaviikot).

In this paper, we focus on evaluation and measurement of conversational art intervention instead of the pedagogical methodology (Banerjee, 2015). To map the conversational potential, we applied mixed methods: photography and video documentation (Moore et al., 2008, Caldarola, 1985), log sheets, and participant observation (Bryman, 2012) during the actual event. Further, we analysed the discourse in local media, social media and notes of personal on-site encounters with visitors of the installation as research data. In addition, we applied self-reflection on the action research process (Robertson, 2000). The main media sources were articles in newspaper Kaleva and posts / comments in social media channels (instagram, twitter, facebook) with designated hashtags or groups related to the event.

We applied following ethical procedures in our study: We publish no names of the event on-site participants. We quote public social media comments but include no original social media

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usernames, offering anonymity by generating random names. We use our own photographs for illustration. No delicate information or vulnerable participants, such as children, are included in the social media study (Townsend & Wallace, 2016). For analytic purposes, we divide the social media comments in primary and secondary. Primary users (marked with p: @ig-user-p1) posted a photograph of installation themselves. Secondary users (marked with s: @ig-user-s2) have commented a posted photo. Quotes in this paper are excerpts from original social media postings without connected pictures. Due to technical reasons, we left out emojis from the quotes. All the comments included in this study relate to photos focusing on installation. Pictures with installation on background, such as selfies, are left out of the study.

Case: Temporary and Conversational Art Project

The municipality of Oulu is Finland's fifth biggest city with its 200.000 inhabitants. The city district Myllytulli, bordering the city center of Oulu, is a mixed-use district with old industrial architecture and large recreational areas. Hupisaaret Park covers almost half of the district. Myllytulli accommodates several cultural facilities, such as Luuppi Museum and Science Centre, Oulu Museum of Arts and Tietomaa Science Centre, as well as several educational facilities and hotels. The buildings surrounding Åström park vary from low wooden constructions dating one century back to a recently constructed 5-storey-high apartment block. A main pedestrian lane crosses the park diagonally, being the key passageway for pedestrians and cyclists between riverside neighbourhoods and city centre of Oulu. Åström park represents a link between built environment and greenery in Myllytulli.

The municipality of Oulu promotes cultural events through their 'Urban Cultural Program' (2013). Within this larger event network, the annual 'Oulu Night of the Arts' represents an umbrella occasion, under which smaller interventions place themselves. Traditionally all performances of 'Oulu Night of the Arts' happen open-air and are free of charge for visitors. Myllytulli, a central location and a hotspot for culture, accommodates several art pieces each year. On August 17, 2017, there were six cultural installations or performances in Åström Park.

The summer school students conducted a spatiotemporal analysis on Åström Park two months before the actual event. This raw data was cultivated into a balloon installation of 3.600 white balloons for 'Oulu Night of the Arts', representing the amount of visitors, passing cyclists and pedestrians in the park during the analysis day. The size and form of the sculpture were based on spatiotemporal analysis of the park. The form indicated the temporal division of users throughout the day (Figure 2). The form of the balloon installation enabled visitors to interact: touch the piece and experience the park through the balloons. The sculpture was accompanied with descriptive texts and graphs on posters attached to a nearby tree, which presented the broader, collected data. We announced the event on 'Oulu Night of the Arts' platform and on a set Facebook page. The regional newspaper Kaleva informed about the installation on three consecutive days: preceding, during and following the event.

The art installation embodied local everyday life in a data piece. We emphasised the place-based-ness by presenting the daily usage patterns on-site in an artistic form. Our aim was to create a place-based discussion and interaction between everyday usage patterns and park users. The installation reconsidered temporality of the park through an illustration of daily rhythms. We reflected contemporary rhythms of Åström Park. The project celebrated the small and mundane everyday details that long-term schedules of municipal administrations tend to neglect. We reframed the daily movements of running errands, meeting friends, conducting leisure activities and traveling to school or work to an aesthetic data art piece, and intended

to raise appreciation of the mundane. We wanted to encourage a discussion, or simply participation in a shared experience.
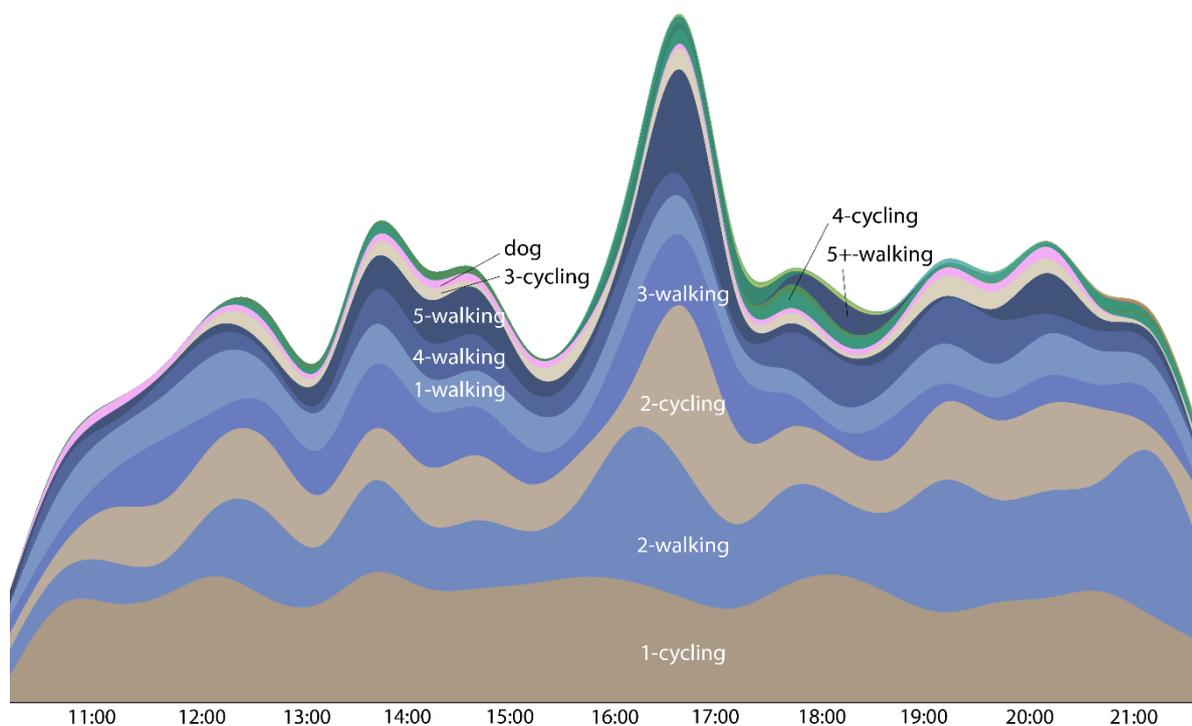
Figure 2. *The graph represents the amount of passers-by from 10 AM to 10 PM, categorized according to the mode of transportation and the size of the party the passers-by were with. The streams are arranged from biggest to smallest group (= the total number of passers-by within the group). Source: © 2017 Authors.*

During 'Oulu Night of the Arts', the participants were invited to reflect the place through the presented data. The presence of organisers during the 12-hour timeframe enabled visitors to discuss the information and exchange about the pilot project. The visitor profile shifted depending on the time. During the day, there were organised visitor groups from local stakeholders, such as kindergarten classes or Finnish language classes for immigrants. Older people, mostly residents of the neighbourhood, would visit the installation in the daytime. They were eager to share their opinion on the locality. Families would visit with their children after work. In the evening, visitors were mostly young adults, scholars or students, who would have a drink and spend time in the park. The weather was pleasant and warm, so we enjoyed exceptionally many visitors for a weekday event in Oulu.

Results: Art Event as a Place-specific Conversation

In the following section, we discuss the art installation through three viewpoints of importance to the conversational potential: materiality, temporariness, and social impact. These viewpoints also draw on theoretical perspectives from chapters 2.1, 2.2. and 2.3: temporary art installations as performative practices, materiality as new urban aesthetic and communication on urban development in social media.

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Materiality

The material art piece evoked much attention and interest. The aesthetic visuals enticed visitors to touch – thus, the material object acted as a mediator, also enabling contact between people. The installation gained much attention in traditional and social media as well as within 'Oulu Night of the Arts' visitors. The physical piece managed to draw attention to the presented information, although the local and social media tended to talk about artistic aspects of the installation rather than the chosen topic. The instagram comments tended to remain descriptive @ig-user-p4: *Feet on the ground, head in the clouds. 3600 balloons in Åström park. #datapilvi #datacloud #ilmapalloteos.* @ig-user-s9: *How fine! At the first sight they reminded me of grapes.)*

Engagement with the material sculpture provided an unambiguous place-making element. It activated the park in micro scale and formed a unique experience consisting of data, knowledge on urban life, concrete small-scale experience and spatial activation, which was noted and praised some days later by a regional newspaper Kaleva. The location in the middle of a green park enabled an experience through the place, and emphasised the place-based-ness. Through its white colour, the piece was simultaneously overly visible, like an alien form in the park, and simultaneously, a neutral tabula rasa. The installation represented a background, like everyday life itself, happening around us.

Figure 3. *Our art installation of white balloons offered a beautiful backdrop for photography.*
Source: © 2017 Reetta Lehtiranta.

We selected balloons for their compact size and ability to represent quantitative information easily, while the visitor associated them with positive connotation. Data

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became secondary for many. The balloons fascinated children, who squeezed them, ran and played around the sculpture. (Figure 4) As a childcare group visited the installation, the kindergarten teacher introduced the piece: "Look, this is *art*", whereas the children would engage themselves with the materiality. Although the balloons remained without deeper information content for the children, the playful looks enticed even the youngest participants into play. For adults, balloons became a selfie backdrop or social media opener. Timing within the annual art event aided relaxed discussions.

The varying sculptural form in plain white conformed social media aesthetics. Through introducing the everyday life of the park as visually pleasant art installation, we wished to enhance the stakeholders' affection with the place. Our pilot project pursued regaining the hope (Anderson & Holden, 2008). As the piece wept silently in wind, it enabled visitors settle down, or fill the absence of sound themselves. The neutral object offered visual peace. Our pilot project demonstrated the potential of white balloons to enable difficult topics. Visitors of all ages seemed to love balloons. The interest in the enticing visual features of the installation and the secondary nature of data raise questions on the "economy of attention": the main way to read the installation seemed to be visual. Since social media encourages visual as main capital, art interventions necessitate "Instagram-worthy" characteristics to receive attention. Thus, sole materiality might prove insufficient to stir on-site or social media conversations.

The data art installation demonstrates the educational potential of public art (Hall & Robertson, 2001) as the visitors shared our preliminary research data on their instagram accounts. @ig-user-p2: *This illustrates the passers-by of Åström Park #ouluntaiteidenyö.* @ig-user-p25: *Night of the Arts in the afternoon. 3600 balloons #ouluntaiteidenyo.* Some users commented our method of presenting the data. @ig-user-s17: *That's such a cool way to show how data is connected nowadays! I should show it to my grandma to explain :D* To be able to see and touch the 'data' seemed to be also a revealing experience, providing a way of approaching place-specific meta-information, a multi-layered 'local knowledge'.

Materiality and tactility acted as discussion openers. In previous research material, eventual affordances have been observed to increase social acceptance of urban transformations and influence citizens' intimate, embodied knowledge on localities (Ernwein & Matthey, 2018). Our objective to raise concern about the unused potential of the park detained from future-related questions, embracing the momentary and augmenting it with additional information. We have no means of following long-term effects of the installation. As Ernwein and Matthey (2018) state, 'each of the bodies subjugated to the pleasure of the experience becomes a potential vector of transmission of the "new" urban values' (p. 297). Experience itself is viable to work as a means of communication.

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Figure 4. *Children were especially fond of the materiality. Source: © 2017 Reetta Lehtiranta.*

Temporariness

Through its short-term appearance, the installation created local media visibility. Thus, the temporariness helped us gain visitors. It is difficult to estimate whether such a short intervention will have longer-term effects - the social media discourse faded in several days. Our installation engaged visitors and increased their awareness of the place. Art facilitated the discourse and became topic of following social media discussions. The installation provided a means of engagement in an unofficial setting. Within an art event, where traditional hierarchy is re-organised (Marques & Richards, 2014), planners and their decisions become closer to public and their daily life: the data was distinguished from the linear planning process and approached equally and reciprocally.

An older lady approached us with questions concerning the intervention. "What is this work about? Why did you build it here in Åström Park?" Our answers about architecture as place-making, visualisation the park usage and activating the place provoked further questions: "But what do you plan to do about it after today? What will happen to Åström Park?" For her, temporary installations are insufficient as urban interventions, and present no alternative for long-term visions of urban development. The piece remained abstract, and including her in the conversation would require elaboration of the participatory aspect. Conversely, several middle-aged participants found our intervention both necessary and suitable for the location. "It is such a fine idea to activate Åström Park. Hopefully there are no plans for housing development here." The conversation offered profound discussion on local potential.

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The short time frame seemed a perfect fit with fast-paced social media. @ig-user-p7: *An art installation #datapilvi is in process! You can see the finished installation in Oulu Arts' Night (@ouluntaiteidenyo) tomorrow;* @ig-user-p3: *These balloons were part of the Oulu Arts night last week and called the "Data cloud" #travelart #ouluartsnight;* @ig-user-p1: *Architecture students' data cloud in Åström Park #ouluntaiteidenyö.* Although some users both online and on-site seemed disappointed with the duration. *@ig-user-s5: Apparently this was exposed only today :(*

On site, a middle-aged woman asked us "will this art piece be here tomorrow as well? Not anymore? That is too bad, we are looking for locations for wedding photography, and the balloons would have offered such a beautiful background!" Although an art intervention has potential to provoke stakeholder identification with the locality and bond people with the places, the short-term nature opposes problems, as not everyone is able to attend on the specific date. Regarding a conversation we wished to evoke, it is crucial to have a clear message, as otherwise public art is no conversation opener but a mere backdrop for (wedding) photography.

Our temporary installation created no opposition, rather a warm welcome, compared to long-term constructions or permanent art. For the visitors, temporariness enabled experiments through photography, playing, spending time on-site. Like tactical urbanism and experiential urbanism which experiment with urban possibilities prior to final execution (Lehtovuori & Ruoppila, 2017; Lydon & Garcia, 2015), our pilot project explored the potential of the place. As aiming at potentially durable solutions is not a necessary goal, ephemerality represents an integral part of the quality (Lehtovuori & Ruoppila, 2017). Thus, our pilot project concretely distinguished from tactical urbanism, as our intention is a discussion rather than alteration of place.

Social impact

Our event was aimed at all local social groups and we pursued best possible inclusivity. Through the integration of our project to the wider Oulu event network, we gained visitors who would possibly be absent on an ordinary weekday. We had no prior assumptions on visitor profile, nor did we invite special groups. The social mix ended up quite balanced, regarding age and gender. The 12-hour shift on a summer day represented the user mixture of the park quite well: 'Oulu Night of the Arts' starts at noon (12am) and ends at midnight (12pm) on a weekday Thursday. The flexible visiting hours of our installation and the 'fun aspect' of the 'Night of the Arts' encourages certain visitor groups that are often missing in municipal urban development, like scholars and working parents with their children, to participate.

As for the social media participants, we are unable to estimate age, gender nor geographical distribution. Social media users are characteristically younger than median age. People approaching us on-site tended to be older. The contents of the discussion on-site and in social media varied drastically. Whereas social media discourse concentrated on the aesthetics and looks by short comments and emojis, the on-site discussion included elaboration on existing urban development plans. Our art installation evoked countless 'likes' (facebook) and 'hearts' (instagram) in social media, but comments or opinions in literal form remained scarce. It takes time and effort to devise a publishable comment in textual form.

Public space proved an ideal media for open discourse. The data art piece enabled participation via several means: photographing, sharing, playing, meeting neighbours -

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relaxing alone and together, discussing on-site and on-line, commenting on various media platforms. It pursued ways of involving groups outside of administrative participation processes, especially illiterate, such as small children or novel immigrants. Although we encountered these groups on-site, the lack of verbal communication complicated understanding their experience. The work was abstract and interpretable in various ways. Material presentation and visual presence of balloons in amount of visitors aroused surprised reactions.

Figure 5. *Engagement with the sculpture. Source: © 2017 Reetta Lehtiranta.*

Oulu-related hashtags were popular, reinforcing the local aspect of discourse. Our installation doubled as advertisement picture for the area: @ig-user-p6 *The night of the Arts is still sunny. Let's enjoy the events. See you! #ouluntaiteidenyö.* The social media discourse underlined the hype and the fun aspect, remaining shallow. Comments included humor and admiration. @ig-user-p10 *#balloons, balloons everywhere! #datapilvi #taiteidenyö.* @ig-user-p8 *#geeks this is #datacloud! by #architectstudents of #oulu.* @ig-user-s11 *Wow stunning !!* @ig-user-s12

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That's very cool! So unusual. @ig-user-s19 *So beautiful.* @ig-user-s20 *How interesting and beautiful.* @ig-user-s22 *Woooow.* @ig-user-p24 *Beautiful balloons. This was my allocation of culture today, and I'm heading to my rural cottage now. #datapilvi #ouluntaiteidenyo.* Many published photographs only included hashtags and/or emojis, lacking any verbal comments.

Our focus in the small and the mundane underlines its relational aspect. Oulu's regional leading newspaper mentioned our pilot project in its Sunday number, three days after the actual event (Kaleva 20.8.2017) with a title 'Beauty lies in small things'. '*Architecture students counted that appr. 3600 people pass through Åström park in a day. The observations were transformed into an art installation Datapilvi for Oulu Night of the Arts. 3 600 balloons told about life in the park. In this small-scale urban event, information and visitor experience were combined. There are many small urban events taking place in Oulu, covering just a street or a neighbourhood. A successful event is not measured in the number of visitors or expensive performers.*'

Figure 6. *The white aesthetics attracted young people. Source: © 2017 Reetta Lehtiranta.*

Finding the conversations proved challenging, both on-site and internet. The comments with designated hashtags and public social media profiles were accessible. The on-site discourse represents a similar division of private and public, where we are unable to access visitors' personal experiences. Further, a considerable amount of comments in instagram, twitter etc. consisted of solely hashtags or emoji's. Despite the legitimacy of this conversation type, it is incomparable with verbal expressions.

Discussion

In this article, we analyse the action research case study and its conversational potential through the material, temporal and social dimensions. These characteristics derive from the art piece itself. However, research could aim similar objectives with different methods and analysis framework. There is a considerable amount of writing on effects of permanent public art (Miles, 2000, Sharp et al., 2005). Similarly, non-material art, such as electronic or luminary installations, might evoke place-specific conversations, despite the different interaction.

As a place-making object, our installation was a success, as it raised attention over the place in local and social media. Based on the pilot project, we argue that future urban planning and its communication should connect with everyday life of the citizens. Rather than creating substitute urban planning instruments, we pursued combining the spatial and temporal aspects of urban everyday into a material conversation piece. The pilot project suggests an experiential approach to celebrate everyday life in public space. On urban micro scale, these aspects depict successful qualitative communication. Both official and unofficial means of discussion are still necessary for information exchange. The conversational potential of data art installation is linked to contemporary multi-locational experiences: what kind of qualities are required to engage users, for example, in social media? If the intervention is intended for discussing a specific urban development question, the clarity of the message itself needs to be thought carefully in order to reach the aim.

Our case study suggested some methodological challenges. Action research method requires a large amount of personnel. Working together with the students proved rewarding, however, data collection necessitated more supervision than we expected. For further action research interventions, we would plan the data collection more carefully in order to ensure corresponding data sets for both on-site and social media material. For a pilot project, we consider the case study a success. On the field of culture-led urban development, research results often end up qualitative and subtle. In order to conduct a quantitative social media analysis (Cerrone et al., 2018), a research strategy for reaching more users and posts would be necessary.

Although our pilot project succeeded evoking conversation generally, we recognised difficulties in generating discourse on specific topics. Regarding the contents of the conversations, social media discourse remained shallow. There was talking about and around the art installation, the data content, the locality and our pilot project, but no profound exchange on any of them. The art installation should point the information content clearer when the objective is to generate a specific discussion on local urban development or site-specific problems. Directing a conversation via questions proved more effective than presenting specific data in a public art piece. Yet the art installation represented potential that could be further developed in the next case studies.

We believe that the proposed approach provides reciprocal interaction, strengthening the nature of the place. Visually pleasant material art could invoke discussion on more sensitive or troublesome topics. In the proposed approach, participation is seen as 'giving back to the community' through representing and exposing collected data for discussion, which overcomes certain critiques on rational-comprehensive urban planning. This would hypothetically lead to people being more responsive to planning practitioners. We see the potential of the proposed approach in its materiality and place-basedness. Although culture-led urban development is generally difficult to measure as their effects are rather sophisticated (Evans & Shaw, 2004), our approach indicated imminent discourse in local and social media.

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After all, the key point of cultural engagement overwhelms economic value and focuses on empowerment on the community (Sacco & Tavano Blessi, 2009). The process overtakes the product, goes 'beyond object making and puts the maker inside the place rather than removed from it' (Wortham-Galvin, 2013, p. 36). Thus, the two, place and process, become inseparably intertwined.

Figure 7. On the following day, we announced dismounting our installation in social media, sharing its physical pieces on-site. Locals expressed notable interest in the balloons and parts of the work travelled to nearby cafés, schools and private homes. Source: © 2017 Reetta Lehtiranta.

According to the pilot project, we argue that consciousness of everyday urban activities (in our case via the installation) helps stakeholders reconsider their environment. The media discourse following the event strengthened this perspective. If public discourse on urban environment concentrates solely on municipal urban planning projects and visible new constructions, we risk creating a misconception of them being superior to mundane everyday life. Our installation illustrates how everyone's action contributes to the livability and appeal of urban public space. Art interventions endure the potential to challenge linear urban development and its conception of space as a unitary object or activity container – thus positioning itself as relational. Planners and artists who also act as communicators, or activists as Miles (2005) suggests, do not cease to be planners and artists but rather it gives a deeper layer to their expertise: they are thus both 'professionals in their fields and dwellers on dwelling' (Miles, 2005, p. 907). The communicative, art-based practices question and interfere the customary city-image rhetoric (Miles, 2005). New modalities of communication about urban projects deal rather with building expectations than 'correcting reality after its actualisation'

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(Ernwein & Matthey 2018, p. 296), suggesting that even tentative data without specific aim could be useful in long-time perspective.

Art has become a meaningful aspect of urban development, not only due to its place-making capacities (Miles, 2005), but also due to the informative enhancement. The huge amount of information available on localities, such as GIS data, is scattered around the web. Our installation offers the local information directly on-site, augmenting the physical locality with data dimension. In the pilot project, the data consisted solely of the pedagogically produced visitor count (Tornaghi, 2015) but the potential proved much wider. We concede that municipal urban blueprints are optimal for presenting spatial information, such as heights, dimensions, and usage dedication. However, we argue that they are less suitable for discussing everyday life, and thus, our art-based approach offers novel perspectives.

Focus on data in the context of culture-led urban development situates our approach within *preceding* design interventions rather than unfolding the relationality *by means* of design (Wohl, 2017) and thus differs from the aims of tactical urbanism. However, we see this as a potential direction to be developed within the current emergence of big data, governance with data and evidence-informed decision making. When data on urban environment, its dissemination and the feedback are brought together and exposed in a data art installation, we could reach open processes, critiques and co-production of urban development.

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Urban and Architectural Adaptive Strategies for Inclusive Cities: A Review of International Innovation Experiments

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The current migration flows toward Europe are having a significant impact on social composition, economy, urban services, and on the physical dimensions of cities. Cities have a key role in developing immigration policies and sustainable accommodation models, that can promote an inclusive society as well as local development. Due to the persistence of migratory flows, these models of integration and development cannot be supported by an emergency condition, but they should be based on systematic strategies. This paper presents a series of accommodation models and urban policies, coming from international experimental projects, that we argue can foster integration and urban development. These strategies show the potentials of immigration in boosting urban transformation and regeneration. Innovative strategies for dealing with immigration are based on flexible tools, typically from temporary habitat (housing modules, light construction systems, customized solutions) that find a place inside the city. Integrated design strategies use the existing city as a frame being filled up by flexible houses, through urban densification or regeneration process. Housing dissemination, temporary and flexible architectural solutions and inclusive process are the drivers for developing a flexible habitat, at the base of a more sustainable and democratic city.

Keywords: resilient city; inclusive city; migratory flow; place-based strategies; temporary habitat.

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Introduction: City and Immigration, Opportunities for an Inclusive Urban Development

It is internationally recognised that migration is an urban phenomenon. Immigration influences cities from social, economic and spatial perspectives. Cities serve as first points of arrival, transit hubs, and ultimate destinations of millions of migrants (100 Resilient Cities Report, 2016). Cities provide food, shelter and healthcare at arrival; accommodation and subsistence during transit; employment and social integration for long permanency. Regardless of their origin or their motives, the number of international migrants is increasing, and it peaked at 244 million people in 2015 (UN Report, 2015b), a number which stokes the fear of local populations, due to the considerable presence and polarization in urban areas[1]. Europe has seen, for centuries, many migration phases. The several migration flows, with all problems linked to it, were and still are formative for how cities today are shaped and can be transformed. Migrant flows can give different contributions to European cities. In ageing economies, for example, newcomers are fundamental to keeping the economic demand and the workforce stable. Immigrants also bring social and cultural vitality to cities, launching new economic activities, bringing cultural influence, increasing urban demands related to public spaces and services, and making a renaissance of depopulated areas, for example in rural areas[2].

The Urban Land Institute (ULI) report (2017) showed the implications of the migration flow in European cities. A key focus of that research was to understand how cities can best accommodate migrants and how the real estate industry can respond effectively to it. The ULI report (2017) identified the need for innovative strategies taken by local authorities and the real estate industry, to respond effectively to current and future housing demand.

There are many examples of European neighbourhoods in which the concentration of immigrants brought with it urban requalification. Sarpi District in Milan (Balducci et al., 2006), Belleville in Paris (Kaplan & Le Moigne, 2019), Brick Lane in London (Frost, 2015) or Kreuzberg in Berlin (Akcan, 2018; Pratt Ewing, 2004), represent cases of good integration between immigrants and cities. In these neighbourhoods, foreigners filled depreciated urban areas, started to develop economic activities, first addressed to compatriots, and later opening to the whole population. This increased the attractiveness and appeal of those neighbourhoods through ethnic restaurants or commercial activities which triggered economic growth, investment, tourism and urban gentrification processes. All these phenomena, fostered by the immigration process, helped to re-shape and change the functions of these cities, or parts of them in unanticipated ways. Such experiences represent evidence of the opportunities related to embracing migrants within our cities and seeing them as central actors in urban transformation processes (Schiller et al., 2011). Despite those good and rare examples, the mainstream immigration policies still follow an approach based on hiding the problem and relegating it, under temporary (emergency) solutions or leaving it to a self-resolution (Castles, 2004; UNHCR, 2015a; 100 Resilient Cities Report, 2016; Baobab Experience Report, 2017; World Economic Forum and pwc report, 2017; Cesareo, 2018).

Migration flows may be seen as a new dynamic chance, or a seed of urban conflicts and tensions. This largely depends on the way in which immigration is dealt with, from a political

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[1] The 92% of immigrants in the United States live in urban areas, as do 95% in the United Kingdom and Canada, and 99% in Australia (Woetzel et al., 2016). The 92% of immigrants in the United States live in urban areas, as do 95% in the United Kingdom and Canada, and 99% in Australia (Woetzel et al., 2016).

[2] According to the 100 Resilient Cities Report (2016) Migrants contributed 9.4% of global GDP between 2000 and 2014.

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and administrative point of view, but also in terms of spaces and built form. Ineffective management of new populations can exacerbate existing stresses. As many migrants cannot, or do not intend to, return to their place of origin, municipal authorities must start seeing their role as long-term, or even permanent, hosts. This means that migration is not linked to a temporary state of emergency, even if its size forecasting is uncertain. The uncertainty about the future dimension of immigration flow brings the need for *flexible solutions* to be able to adapt to different situations, incremental or in reduction. It is important that cities look beyond reactive short-term strategies to strategies that focus on long-term possibilities. To realize this vision, it is important to consider migration dynamics as an essential element of urban planning and urban governance. Cities must design city plans and policies that explicitly address migration and create the framework for an immigrant-friendly city (Fincher et al., 2014; Shepard, 2016). It is important the promotion of a flexible approach to all urban planning instruments, including spatial planning, mobility planning, public space design (parks, streets, malls), building codes (for driving the building sector and the migrants housing design), zoning by-laws, neighbourhood renewal projects, participatory budgeting and local environmental initiatives.

The space where we live has a direct influence on people behaviours. Thus, urban planning and architecture should incorporate immigration concerns in their approaches, instruments, practices and actions, in order to foster integration, reduce the shared fear perception, involve newcomers in public life and in the job market, avoid marginalization processes, incentivise economic development, improve the quality of life – even in terms of social relationship –, promote environmental and resource protection.

The paper aims to investigate the opportunities given by innovative building designs and district renewal projects concerning accommodation models for migrants. The novelty of the examples selected is based on them possessing 4 key characteristics: *inclusiveness, flexibility, reversibility, and relationship with the city*. Each example reinterprets, to a large or lesser degree, all those concepts, suggesting new forms and strategies for accommodation housing models for migrants, able to give a new identity to the city or part of it (for instance vacant area or areas under a regeneration process). A shared characteristic is also the use of mid-long-term solutions. The need to treat and plan migrant accommodation as not an emergency/ temporary situation is crucial for the immigrants themselves, and as well as an opportunity to revitalize the host cities.

The paper contribution is intended in the possibility of learning from innovative design solutions and urban strategies related to accommodation housings for migrants. The city's capacity to embrace immigrants and create good conditions for more inclusive and booming society goes through the innovation of accommodation strategies. The paper shows some experiments taken in the last decades in Europe, through a review analysis focused on the 4 criteria mentioned above, which represent a vision for design housing models for migrants and integrate them within the city.

The paper is composed of 4 parts: the research design; the analysis and discussion; the conclusion; and the paths for future research.

Research Design

The paper presents a selection of architectural and building system examples for migrants' accommodation models[3], intending to show innovative practices in use internationally. The examples refer to mid and long-term[4] solutions, focusing both on the design field and the impact on cities. The best practices are selected for their capacity to interact with the urban context and achieve impacts on city spatial planning and governance, avoiding emergency solutions.

The medium-term is particularly crucial in this review. It means the first 4/5 years in the arrival country, which is quite important for an immigrant: in this period, she/ he defines a social role, creates a network, tries to find a job. The paper focuses on the accommodation housing models for migrants, and it does not trait the whole immigration strategy in force in countries. Talking about housings for migrants refers to the relationship with the built environment, with vacant areas, with blight districts, with the future of the city. The paper aims to analyse what are the possible design strategies or accommodation models that can be employed for migrants in the middle period. The selection of those best practices is based on 4 criteria:

- the possibility to *involve* the future inhabitants in the living space configuration (people side);
- the grade of *flexibility* reached by migrants' accommodation models (building design side);
- the *reversibility* achieved and the possibility of incrementing the cycles of uses (building design side);
- the capacity to *reshape the city and the governance* of the city related to migration accommodation policies (city policy side).

Flexibility and *reversibility* are key elements to go beyond the emergency and short-term solution approach. Flexibility means designing plans, rules, policies, shelters and housing for migrants able to address different (urban and social) needs, which shift over time, with a strong shared goal, and where diversity is a core value. Flexibility refers also to the capacity of accommodation solutions for migrants to facilitate building transformations, according to changes in needs and requirements. It is based on the principle that our needs and requirements for the built environment will always change.

Reversibility refers to the possibility of a building to be entirely disassembled and re-assembled in another place without damaging the building components. These building solutions, light and temporary, can set up a relationship with the context and give a new sense to empty urban areas or residual spaces. The aim is to create buildings that support change effectively and efficiently (Durmisevic, 2019). Adaptability and upgradability, durability and compatibility of buildings (or parts of them) are the elements which guarantee multiple life options for mid-term but also for long-term housing solutions for migrants.

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[3] It has been quoted also some projects conceived not specifically for refugees, but for the poorest brackets of the population or residential architectures, whose design strategy allows a high level of flexibility and interaction from the final user.
[4] Short-term responses include emergency shelters used at the first accommodation phase in areas with high volume of arrivals. The medium-term responses are those that need quick construction processes and utilize industrial and modular building systems or that re-use existing structures. Long-term solutions consider the possibility to build permanent new buildings, connected with social infrastructures and urban services (Urban Land Institute, 2017).

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Starting from those two elements (flexibility and reversibility), we analyse innovative strategies of housings for migrants and refugees[5]. The novelty of this review is its intent on understanding the integration between building design and urban planning. We found three main paths of integration:

- take advantage of vacant areas in the cities by building reversible houses;
- densify existing districts wherever possible, by innovating building rights acquisition mechanisms for new temporary immigrants;
- use an open building approach.

Those come from the study on accommodation models and immigrants' accommodation policies, most of them presented in the paper. The presence of a connection between building models for migrants and urban impact was a prerequisite for the examples' selection. When selected and analysed the examples brought to light the three interaction paths, as the most recurring and interesting ones.

Functional intensification and densification mean to increase the concentration of buildings, residents and activities, through infill process, and deep requalification programs (Rosol, 2015), which can lead the increasing of health, security, and social cohesion, often reinforcing public services. In this infill process, local authorities can find a location for newcomers, avoiding the ethnic spatial segregation. To favour a 'mixité' approach it is necessary to adopt flexible regulations and zoning plans, be able to switch the functional designation of buildings and (parts of) areas in order to adjust housing needs and promote economic entrepreneurship, especially for newcomers. In this approach a flexible housing design is necessary. Flexible housing models permit to adapt to different urban contexts and social needs, which can change in time.

Other solutions go through the identification of empty urban spaces, vacant or abandoned buildings (waiting for a new life), both in the downtown than in the suburbs, suitable for reconversion, requalification, or infill programs for new social housing solutions, new urban services or economic activities. Developing housing for refugees and newcomers in underutilized spaces can catalyse other projects and benefits: it can address inadequate or unaffordable housing for the homeless, mitigate climate change effects and improve energy security through retrofits, and it can beautify and revitalize abandoned neighbourhoods (100 Resilient Cities Report, 2016). In these cases, reversibility characteristics are crucial, as well as the flexibility of urban planning tools and strategies. The open building approach makes the building structure and systems permanent, changing only the internal space configuration, when users change, according to their necessity or desire. It images the architecture as an unfinished structure that finds its morphological and formal identity only after a participatory design process, which includes final users.

The best practices selected following the 4 criteria (involvement, flexibility, reversibility, and reshaping urban governance) are classified into 3 categories, according to the main paths of integration between building design and urban planning came out:

- temporary building on empty urban spaces waiting for regeneration;
- urban densification (rooftop architecture, infill, etc);
- open building approach.

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5 Also see the open source online platform collecting best practices on accommodation housing for immigrants and refugees http://architectureforrefugees.com/ (last view August 2019).

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Table 1. List of best practices analysed

STRATEGY	PROJECT	ARCHITECT	PLACE	YEAR	STATUS	FUNCTION	DURATION OF USE CYCLE	DURATION OF STAY
TEMPORARY BUILDING UPON MUNICIPAL LAND WAITING FOR REGENERATION	Start block Riekerhaven	Local authority	Amsterdam, Netherlands	2016 – on going	built	Affordable rented homes for young people (refugees and young Dutch) in Amsterdam	10 years (second cycle of use)	5 years
	Blue Village	Architekten BDA Feldschnieders + Kisters	Bremen, Germany	2016	built	Houses for refugees	5 years (expected at least two cycles of use)	5 years
	Ladywell place	Roger Stirk Harbor and Partners	London – Lewisham borough, England	2016	built	Affordable house for the homeless and needy person	4 years (expected at least two cycles of use)	4 years
DENSIFICATION OF EXISTING NEIGHBORHOOD (ROOFTOP ARCHITECTURE, INFILL)	Starting with the roof	Satoshi Ohtaki	Finland	2015	concept	Temporary houses for refugees	10 years (expected two cycles of use)	10 years
	IMBY	Quatorze	Paris, France	2015	prototyped	Mobile houses for refugees or homeless	1 year (expected at least two cycles of use)	1 year
	Las Palmas parasite	Korteknie and Stuhlmacher	Rotterdam, Netherlands	2001	prototyped	Parasite Architecture- small house or small office	5 years (second cycle of use)	5 years
	Mobile architecture	Yona Friedman	Rome, Italy	2017	Concept	Temporary houses for refugee	6 years (expected at least two cycles of use)	6 years
OPEN BUILDING	Ökohaus district	Otto Frai	Berlin, Germany	1987	Built	Houses	Long term	1 year

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The selection of best practices started from the database[6] created during the 2016 Venice Architecture Biennale and focused on the relationship between architectonic design and social innovation, especially related to refugee's accommodation models and strategies. In 2017 the Urban Land Institute (ULI) published its report, collecting innovate solutions and strategies to deal with migration flow within cities. The two starting points were crucial for identifying the 4 criteria at the base of the best-practice selection process. The best practices have been selected during one year of research in this field, through literature and project reports published by authors and architecture studios. When identified each best practice was organised in a table (table 1) according to the strategy applied and according to the impact on the city: urban densify aim; urban regeneration aim; open building aim.

Table 1 summarizes the best practices analysed in the review, identifying for each one the location, the status, the function, the duration of use, the duration of stay. The last two characteristics refer to the life cycle of the architecture and its capacity to being re-use in some other ways (disassembly, moving and reassembly) and the time of permanency of one refugee family.

In the next sections, the best practices are analysed and compared with the aim of finding strengths, weaknesses and opportunities for improving. In the discussion, the best practices do not strictly follow the table 1. It was necessary to better compare solutions and strategies applied in each example, finding differences and grade of impact in terms of urban practices/policy and architecture innovation.

Urban and Architectural Opportunities for Innovative Inclusive Projects

The idea to create socially integrated and diversified cities underpinned the Startblock Riekerhaven project in Amsterdam[7]. Startblock is a new temporary borough that encourages the cohabitation and cultural exchange between new families of young immigrants and Dutch population and promotes the self-management of spaces and social activities. In this way the tenants get the opportunity to manage their own living environment. By combining the use of empty containers with disused space, Startblok has created an affordable option for two groups of young people who struggle to access housing in the city of Amsterdam[8].

At the 2016 Venice Architecture Biennale, by Alejandro Aravena, several countries and architects showed urban and architectural design solutions-oriented to address the increased migration. Following this request, some European countries announced international design competitions, calling architects to understand how cities can best accommodate migrants.

The Finland Pavilion presented a shortlist of projects from the contest 'From border to home'. Interesting was the proposal of Satoshi Ohtaki (Starting with the roof)[9] which designed roof structures for future buildings (or existing buildings) to be used as temporary accommodations for asylum seekers. These structures are not conceived as temporary but as 'potential extensions' of existing or at least planned structures, economically sustainable.

Another project, prototyped in Paris, intends to give to asylum seekers small houses in the courtyards of French homeowners. The idea is that refugees would work on the construction

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[6] Making heimat. Atlas of Refugee Housing. See also: http://www.makingheimat.de/en/refugee-housing-projects/database (last view August 2019)

[7] http://www.startblok.amsterdam/en/about-the-project/what-is-startblok/ (last view January 2018)

[8] https://use.metropolis.org/case-studies/startblok-riekerhaven#casestudydetail (last view August 2019)

[9] http://frombordertohome.fi/competition/start-with-a-roof/ (last view January 2018)

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of their own home –to develop their sense of investment in the local community while providing them with housing. Thus, refugees could develop their social and employment networks. As these small houses would be part of established neighbourhoods, refugees could start feeling part of the neighbourhood more quickly. The 'In My Backyard' (IMBY) initiative was born from an idea by Quatorze, an organization that deals with architecture and social justice. 'IMBY' intends to express the opposite feeling of NIMBY (an acronym for 'Not In My Backyard'), which refers to people who fight initiatives close to their place of abode, even though it may be useful to society[10]. Many people in France host refugees into their houses but having a small 'outbuilding' in the garden is a perfect solution. It also means that future residents will be quite independent. To the people who move into the new small houses will be assigned a social worker, through the ELAN program, which is managed by the Paris branch of SAMU Social. The idea is that people can stay in this micro-house for up to a year. The hope is that, after this period, they will have found a stable job and they will have become independent.

Analogously, the German exhibition investigated the concept of the 'Arrival City'. It represents the first contact between migrants and urban space. 'Arrival City' can overlay an existing neighbourhood, or it can become a new physical presence. A series of projects designed to accommodate refugees were shown in the German pavilion.

In Bremen, the Blue Village project focused on temporary houses built on communal ownership land and that would stay for five years. A Muslim mediator guided architects to meet the needs of the future Muslim community. The layout of the courtyard allows privacy and silence, creating a sequence of private, semi-private and public areas.

One of the main reasons for the success of this temporary village is the architectural choices that have been able to use standardized construction modules to create individualized housing configurations. These temporary architectures take advantage of a modular system, that allows to configure the structures and spaces easily and use the possibility of customizing the facade components. This greatly reduces the planning and construction costs and allows the buildings to be built quickly. The container modules do not have standard dimensions and, combined, they display a mix of coloured single-family houses, that give a sense of identity and characterization to the spaces. The 'Blue Village' has excellent connections with infrastructures and it is close to residential areas, schools, kindergartens and international universities. The concept of the modular courtyard house, with self-sufficient residential units, has been further developed in various projects that replace the container with more resistant wooden modules. Wooden building modules save resources and, compared to not wooden systems, they guarantee reversibility, allows to create temporary architectures, reducing construction costs. These projects demonstrate the possibilities offered by integrating architecture and urban planning in breaking down social boundaries.

A persistent housing shortage lead the German government to double its investments, and to finance and incentivise programmes, focused on building affordable houses produced with industrialized and modular building systems: the 'Vario apartment program' (Rettich, 2016). This program fosters an industrialized building approach inspired by the one at the base of the modernist movement for the social housing buildings, in the post-second world war.

In the research and experiments of the 30s in Germany, we recognize a similar approach to reach the same purpose. The exhibition 'Sun, Air, and housing for all', presented twenty-four prototypical extendable houses, small basic modules that can be added when necessary,

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[10] https://www.imby.fr/(last view August 2019)

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designed by the most prominent exponents of the Neues Bauen movement. Similar research was developed in the early 30s, by key Italian industries in the building sector, leading to the production of innovative prototypes, defining construction techniques, and technologically advanced models. It would be interesting to understand how these solutions and strategies, may become more than prototypes and experimentations, defining new standards for the real estate market, reaching large-scale production.

Contrary to Germany (Bertelsmann Stiftung Report, 2005), Italy did not design any program to address housing problems, with a specific focus on technical solutions. The use of industrialized and modular building systems is supported only for temporary post-earthquake housing solutions. In this case, the regulations also foresee the building reversibility. The architects, learning this lesson from the past, can still play an active role in this crisis trying to give a typologically innovative design response. The building industry offers new powerful tools for design solutions sustainable from an economic and environmental point of view:

- modular and industrialized building solutions,
- new software for building management
- building materials with low environmental impact
- technological solutions that allow easy maintenance and high reversibility.

In the main European cities, newcomers can find accommodation only in the huge modernist residential buildings due to the lack of affordable houses in the rest of the city. The urban layout of these neighbourhoods does not favour the integration and needs a morphological and urban rethinking. At the same time, they show high potential, thanks to a large amount of empty land. An example of successful infill is the project at Altenhagener Weg estate in Hamburg by the architects Heidenreich & Springer (Werkstatt-Stadt, 2015). In the requalification project, architects tried to establish a dialogue with the modern pre-existing context, increasing the density and the number of housing with respectful actions that promoted social cohesion. This type of solution is more effective than the one adopted, as well, by the city of Hamburg, which has planned four new suburban settlements to accommodate 4000 refugees. The latter projects aim was not to build a new ghetto, however, it has not been possible finding empty urban areas, where locate refugee settlements in proximity to Germans, in order to ensure social mix. Thus, refugees accommodated in these new settlements at risk of being isolated from the rest of the German population and from fellow immigrants. These settlements could assume the connotation of 'planned ghettos' (Siebel, 2016). Berlin has announced a similar project, called 'Pioneer Housing', in which refugees can be the pioneers of the first settlements. The decision to build new settlements in the suburbs of the city needs a comparison with the past in order to avoid making the same mistakes. However, there is a too small number of low-cost houses or vacant areas in downtowns, suitable for buildings, especially when the housing market is tight like now.

The conflicts in searching for housing arise not only between the autochthonous population and refugees but also between job seekers and those who have jobs, between people with many children and singles, between young and old. Where living space is scarce, this becomes a means of social exclusion and conflicts. Despite this, the space to live in is a human right. Cities are integration machines, engines for work and places of knowledge. Allocation conflicts and housing shortages offer the opportunity to reinvent the city and revive its essence: density and difference, combined with spatial quality. Planning and design, opening spaces and perspectives: this is the goal of the day.

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Temporary housing and flexibility

This path leads from a country of origin to a provisional accommodation in another country: the 'Arrival city' (Saunders, 2010; Schmal et al, 2016), and finally to a definitive accommodation in another city or in another neighbourhood, maybe in another country as well. Thus, the Arrival cities may become a temporary habitat, also because many immigrants will not stay so long in the first arrival city. An interesting case-study to consider is a settlement in the London borough Lewisham that was designed by the architectural firm Roger Stirk Harbor and Partners (RSHP). This housing project is part of a wider political program that attempts to give an exemplary answer to the lack of temporary and low-cost accommodation in London.

Temporary accommodation problems are a symptom of the urban housing crisis. Historically London hosts three-quarters of those in temporary accommodations of the whole United Kingdom (RSA, 2016). Often some districts are forced to relocate the people entitled to have a house in other boroughs; so, it happens that vulnerable people are forced to leave their neighbourhood, and sometimes even London. This could have negative consequences for already vulnerable people, related to losing social ties and network, losing identity, losing the sense of stability, etc. In this context, Lewisham Ladywell's project stands out for its innovative approach. The buildings, composed by twenty-four self-contained modular units, were built on public land, waiting for further regeneration plan. The project took place on the site of an old leisure centre, which was waiting for a regeneration plan. The planning process is notoriously complicated and long. Thus, the local authority decided to put the area to use for temporary homes while longer-term projects are finalised. The building will remain on the site for four years, before being relocated to another vacant site, following the housing needs. It is calculated that the economic intervention costs will be repaid in eight years, including the costs of disassembling and relocation. The purpose of this project was specifically to build emergency homes, and despite achieving high-quality levels, it cut costs. The building system chosen for Ladywell buildings is similar to the Y-cube housing one, in Mitcham. 'The offsite construction method used means quick construction phase and less cost, and combined with being moveable, creates the potential to be used in temporary sites'[11].

The idea of taking advantage of vacant urban areas, for the period in which they are not used, is particularly effective because it does not prevent or oppose any future area development. There are many empty central areas in downtowns, waiting for regeneration plans and that are suitable for temporary projects. Supported by financial plans and facilitated by industrialized building technology those areas have great potential in terms of building refugee houses, from short to medium terms, letting refugees and immigrants achieve a more stable socioeconomic position. It is about exploring the potential existing in cities and defining mixed approaches for architectural and urban development.

In Italy, temporary homes are interesting under two points of view: first for giving accommodation to refugees and immigrants, and second for reacting to natural disaster emergencies, such as flooding and earthquakes. Towns in natural risk areas must identify[12] emergency areas suitable to build temporary housing in case of a natural disaster (Italian National Law n. 39, 2009). The areas need to be infrastructure-based to facilitate rescue operations and speed up the construction phase of temporary housing. The same duty could

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[11] Homeshell Projects Roger Stirk Harbour + Partners in 2016.
Retrieved from *https://www.rsh-p.com/projects/homeshell/* (last access December 2019).
[12] On 2th February are been defined, as *Direttiva del Presidente del Consiglio dei Ministri,* the "Guidelines for the identification of emergency shelter areas for prefabricated structures of civil protection.

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be linked to the need for temporary houses related to refugees and immigrants.

In Italy, the accommodation system for asylum seekers and refugees continues largely to be based on extraordinary measures. According to the latest estimates (Cesareo, 2018), at least 600,000 foreigners live illegally on the Italian territory, suffering from marginality (Cesareo, 2018). Especially in cities, where there are no appropriate accommodation solutions, migrants and refugees live in hidden places, in a state of growing fear and frustration, and with limited contacts with local services, including health care. Without social inclusion programs, they try to cross illegally the borders, or they contribute to unhealthy situations in big cities (e.g. Rome), living in 'ghettos' as occurring in the South (e.g. Puglia, Calabria), where the immigrant population grows in coincidence with the seasonal agricultural work (Baobab Experience Report, 2017). The lack of accommodation solutions forces refugees to occupy buildings. In the last three years, the number of refugees and asylum seekers has increased in illegally occupied public and private buildings (Cesareo, 2018). Compared to the planned accommodation system for asylum seekers and refugees, the occupation follows a model based on self-management and the self-recovery of vacant buildings.

Urban and architectural parasitism

International immigration reports help to show how increases in immigration to European cities are often associated with the 'architectural parasitism'. Immigrants, like the homeless, rejected by society, become unofficial city inhabitants. They recycle, exploit and inhabit spaces that the city refuses or ignores. Their presence and concentration in cities outline a map of waiting or empty areas, full of potential. This section presents a series of design examples of parasitic architectures to indicate a possible interpretation of the contemporary city as a palimpsest. The urban areas characterized by a condition of instability, become possible places for transformation and change, where 'parasitic' elements can become a tool to overwrite the existing city. The Dutch experiments on parasitic architectures, starting from 2001, become particularly interesting, especially those that imagine the parasite strategy as a possible cheap and sustainable answer to the problems of contemporary living, like the high cost of daily life, the high cost of accommodations, the segregation phenomena of such communities like immigrants with less economic income, which find accommodation outside the city and far from services, schools, workplaces, etc (World Economic Forum and pwc report, 2017). The approach used by these experiments changes the way the built city is seen and used, promoting temporary architecture and flexible urban planning. The term itself, 'p.a.r.a.s.i.t.e.', is the acronym of 'Prototypes for Advanced Ready-made Amphibious Small Scale Individual Temporary Ecological houses and boats' and consequently it refers to mobile and 'light houses' designed to colonize residual urban spaces. The characteristics of lightness, mobility and flexibility of these houses recall the industrial construction systems.

These experiments in the Netherlands were not limited to promoting architecture reuse or renovation, but rather in pursuing a model of urban stratification, as for example in the district Leidsche Rjin in Utrecht, where the 'Paradise Parasite' exhibition took place. In that occasion 'the parasites' colonized an awaiting area, creating an 'another city' with houses, spaces public, cinema, hotels, etc., architectures without foundations that showed a 'different' way of planning the territory (Melis, 2003).

The preconditions behind the architectural 'parasites' show the desire of testing an architecture without roots that establishes a temporary and non-invasive relationship with the ground, finding new meanings for the abandoned sites. The 'Las Palmas parasite' project tried to give an answer to the problem of the lack of space, reusing materials, with a flexible function

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aim. Korteknie and Stuhlmacher interpret the theme of the 'parasite' designing a building that can be moved over another place, using prefabricated and adaptable components for a customized assembly. An architecture designed to be reusable even before being temporary. The target for this strategy is someone who is looking for flexible and customizable architecture. The 'parasitic' approach of these architects supports a continuous transformation of the city[13].

This approach is not different from the one suggested by John Hejduk in his 'House for homeless' (Vidler, 1992). In 'The architecture uncanny' Vidler (1992) reinterprets Hejduk's mobile constructions, starting from the relationship with the city. 'The Hejduk's mobile construction, an emblematic site of a range of modern occupations worthy of Kafka, is designed for the staging of guerrilla attacks on privileged urban sites, from Vladivostok to Berlin. [...] The notions of *objet touvè* and ready-made are considered an application to the building, which, in its relations with the mind or with other buildings, is able to arouse associations and, we could say, to act as a vehicle for uncanny mechanisms' (Vidler, 1992, p. 208).

A scheme based on this principle is the one proposed by Yona Friedman at the MAXXI exhibition in 2017: Yona Friedman, Mobile Architecture, People's Architecture. 'Originally, Rome was a place for refugees as well as all major American cities […]. The cities of refugees can be absorbed in our large cities by creating spaces on unused lots […]: an example would be the flat roofs of the modern buildings above they could build temporary housing by scattering a new population into the city […] the immigrant has temporary accommodation; 6 years is a reasonable time to find a place within the society and while the owner of the property acquires the right to build an "extra plan". A real fact can turn into a unique social experience on a city scale, […] The solution is not the concentration camps for migrants, the real solution is to "seed" the city. This is exactly what is happening in many countries of the world where farmers abandon the countryside to settle in the city' (Friedman, 2017). The Italian government has allocated funds to support houses volumetric increase (in specific areas) with tax relief initiatives. If the financial provision of this instrument would have extended to district-level, urban densification could be encouraged, supporting the sustainable development of the city and reducing land use. The new buildings could occupy vacant areas or take up the existing buildings (using appropriate building systems).

The Friedman approach becomes a key element to work on social inclusion and integration. There are building systems or housing modules light enough to not require foundations, such as the Cyclopen house[14] (Ensamble studio). It uses ultra-light construction systems to avoid the pre-existing structure overload, with a core made of foam reinforced by steel profile. Another example is Loftcube (Werner Asslinger) specifically designed to be positioned on the roofs of modernist buildings[15].
On the international scene, there are more and more examples of rooftop architecture. The Viennese project 'Ray 1'[16], by architects Delugan and Mieissl, tries out a similar approach. The unused roof of a building from the 1960s was rented for 99 years for a 'temporary' and reversible house.

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[13] http://www.kortekniestuhlmacher.nl/en/projects/parasite-las-palmas (last view October 2019)

[14] https://www.ensamble.info/cyclopeanhouse (last view August 2019)

[15] https://inhabitat.com/prefab-friday-rooftop-prefabs/loftcube-werner-aisslinger-rooftop-prefabs/ (last view October 2019)

[16] https://www.dmaa.at/projekte/detail-page/house-ray1.html (last view October 2019)

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These 'anti-tabula rasa' proposals apply strategies that operate on the addition or integration of new volumes rather than demolition. They adopt low-cost materials and industrialized systems and components. They use standardized constructive solutions, compatible with the existing structures. They propose passive technologies (using the advantages coming from natural sources, like solar radiation, natural ventilation, natural light, drainage system which use gravity for moving water, etc.) and arrange for flexible functional areas that can easily suit, over time, the different inhabitants' lifestyles. The reversibility of living, or the flexible use of spaces and architectures, may be a strategy that increasingly responds to the contemporary process of urban and territorial adaptation. If the building transformations have shown its effectiveness with successful examples, the intervention on urban or territorial spaces is more complex, especially when it concerns immigration or emergency. In those cases, the strategy must face with undefined temporalities, and disadvantaged users (Anzalone, 2008).

The constant search for flexibility, both in the living space and in the urban space, is historically linked to the culture of nomadism, but at the same time, it also responds to the natural change in the functional cycle of architecture. The study and dissemination of modular components are increasingly fostering the culture of removable and temporary houses, and they promote the concept of transitory architecture and temporary settlements. It is important to study light modular elements, which are transportable, and easy to assemble, on one side, and new criteria of 'liveability of spaces', from the other side (Anzalone, 2008). These typologies are characterized by a short using life and habitability and they are interpreted in terms of 'hospitality'. On the international scene, design and technical solutions that introduce the requirement of variability in the architectural configurations, are increasingly wide spreading. These 'light and contained' architectures concretize the possibility of obtaining an extra space, even if temporary, and they can introduce complexity and wealth in the standardized spaces of the suburbs (Marini, 2008). Often these are micro-architectures conceived as open and flexible devices, based on 'dry' assembly of simple, light and modular components, which can produce adaptable and incremental spatial configurations, in order to accommodate changes in the use of space over time (Perriccioli, 2016). The need to develop accommodation models for refugees can become an opportunity to reinterpreting the architecture. The rooftop architecture or the parasite architecture can become an instrument for reinterpreting the city and answer to the lack of house for refugees or poor people.

Open building approach

The examples proposed so far concern temporary architectures. Disassembly the houses is not the only possibility. The open building approach makes the building structure and systems permanent, changing only the internal partitions when users change, according to their necessity or desire (Akcan, 2018). An example is the Ökohaus district in Berlin by Otto Frei[17]. Frei designed a community of eighteen families, pioneers of an innovative collective project that, starting from a common structure, allows future inhabitants to take an active role in designing their houses. The houses, in Frei's project idea, is a mobile and flexible element, able to be replaced or reconfigured itself when the inhabitants change. Fray's experimentation calls back the theories and design experiences of the Dutch architect Habraken. Habraken (1974), through his 'supports', images the architecture as an unfinished structure that finds its morphological and formal identity only after a participatory design process, which includes final users. The 'support' is configured as a structural grid, that holds the variable parts: the

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[17] http://www.the-offbeats.com/articles/building-together-the-okohaus-frei-otto-collective-improvisation/ (last view October 2019)

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'infill' made up by industrial components. The architect, therefore, has to plan the process and to define an abacus of possible options that the user can choose. The variable parts are industrially produced. However, the logic of normalization of the building industry would lead to an excessive standardization of the architecture. But, the potential of mass customization in contemporary production allows today to overcome this defect (Akcan, 2018). In fact, the theoretical assumption at the base of mass customization in architecture is to guarantee a series of personalization possibilities among which the user can choose (Noguchi, 2009). The basic structure is permanent (the support), and the internal residences (the infill) are usable spaces for a given period.

This approach, although interesting and innovative, does not produce qualitative results. It remains at the theoretical phase and few practical experiments exist, with low social impact feedback. But it can be a good start point for revising housing design for refugees and migrants with a mid-term vision.

A considerable part of the costs in residential architecture is spent on the structure and connection to the water, electricity and sewer infrastructures. In the case of open building this investment is made only once, the internal partitions and finishes, the most perishable parts of the architecture, vary. The configuration of the interior spaces can thereforefollow the changing in people needs, and the changing in migrants flow dimension. The idea of progressive and incremental housing solutions, it is a good answer for a not clear and defined situation, like the migrants' flow is (100 Resilient city report, 2016). But it needs further research and more practical implementations for finding innovative ways of developing.

Conclusion

The city's capacity to embrace immigrants and create good conditions for more inclusive and booming society goes through the innovation of accommodation strategies. The paper aimed to investigate the opportunities given by innovative building designs and district renewal projects concerning accommodation models for migrants. We argue that the urban and architectonic solutions analysed and compared in the paper can increase the quality of migrant strategies and policies within European cities, opening new paths of improving inclusiveness, integration and healthy living solutions, with mid-term and long-term ambition, avoiding the emergency state of action. All best practices discussed here have a potential high impact on the city, both under a physical and governance point of view. They are interesting for innovating urban spatial planning and architecture design.

For the physical point of view, the use of industrialized building systems is fundamental. The reasons are intuitive: lower costs, speed in building phase, re-usability, but also the possibility to control the environmental impact and the performance of each component. The availability of digital design tools, new industrial production techniques and technologies also guarantee high production efficiency. The use of modular and industrialized systems to build temporary houses becomes a way to promote a more flexible and customizable way to live. Most of the industrialized building systems allow a certain level of customization.

For a governance point of view, immigrants are often not involved in city planning and construction processes. By imposing the mandatory residences to asylum seekers there is the risk to hinder the integration process, so it is important to activate inclusion and participation strategies. As UNHCR assert in its *Emergency handbook* (2015a), all inhabitants must be involved in the construction of their own house, with appropriate techniques and organizational support. This strategy ensures that dwellings meet their specific users' needs and generate a

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sense of ownership, as well as self-reliance.

In urban areas, self-building is probably not the easiest solution, but it is necessary to incentivize an inclusive design approach to promote the participation and involvement of future inhabitants in the configuration of their living space. The solution could be to design flexible homes that allow levels of customization to end-users. Houses that use light and flexible building systems allows end-users to change and adapt the space according to their own needs. Customization thus becomes a form of participation and incentive it as well. Among the strategies identified, the one that most moves in this direction is the open building approach.

Future research

Starting from the strategies above it would be interesting, for us, to study and compare a series of constructive systems in the international scene. We selected some industrial construction systems, depending on their technological innovation characteristics: lightness, flexibility, transformability, transferability. All the building systems, selected, have a level of customization. The best ways to pursue it is to make each component modular. By choosing which components can be customized, is possible to check the number of possible combinations. The analysis of those construction systems starts from a redesign phase (using BIM software), that allows us to define all components and materials used, in order to verify the system degree of customization and to understand which components can be changed, in accordance with user's needs.

Starting from a given industrial construction system selected for the comparison, the personalization of the building could take place at programmatic and design level considering the users, the number of future inhabitants and the context. The construction system must be reversible, taking into account the deconstruction phase. A system designed in this way can be disassembled easily, without damaging the components, in order to reuse it. In this way, the inhabitants will be able to customize the residences in accordance with their needs, taking advantage of potentially flexible spaces.

Conflicts of Interest

The authors declare no conflict of interest. The founding sponsors had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, and in the decision to publish the results.

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Seasonality and Out-migration of Residents: The Case of Bozcaada, Turkey

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This paper explores the socio-economic and cultural transitions of Bozcaada, a small Turkish island in northern Aegean Sea, with a focus on seasonal changes. The local economy of the island has shifted from small-scale viniculture to domestic tourism over the last three decades. Currently, the local economy became dominated by domestic tourism businesses. Alongside this major change, the socio-cultural structure of the island has started to change with in-migration of middle-class urbanites. Although tourism enabled the local population to remain in the location in the light of the downfall of small-scale agricultural practices, it also brought about an unusual pattern of seasonal migration: temporary out migration of the static residents. Almost three quarter of the registered population on Bozcaada move to city centres in winter which is off-season for the local tourism. This not on only interrupts the socio-economic and socio-cultural life of the island but also put the local services in danger.

Keywords: migration, socio-economic change, seasonality, population change

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Introduction

During the 20th and early 21st century, rural areas have been going through substantial economic and social structural transformations around the world, due to the decline in production-based activities as employment opportunities for rural populations (Woods, 2005). The globalization of capital restructuring, internationalization of trade, increased international residential mobility and geopolitical reorganizations have been identified as the main components of socio-economic transformation of rural areas (Ilbery, 1998). Most governments in the developed world responded to these rural changes by predominantly adopting reforms to agricultural policies that 'encourage a transition away from productivism' (Woods, 2005, p.301).

As the significance of agricultural production diminished in rural economies, tourism was perceived as a natural route to diversification and to promote a more service-based economy in the countryside (Jenkins et al., 1998). Although tourism seemed to be a response to changes occurring in rural areas, it became an actor of the change itself with varying implications for the local economy, the social and cultural structures of the local communities, and the environment in rural areas. Bozcaada is a small Turkish island located in the north Aegean Sea. This small island presents excellent examples of socio-economic and cultural changes that are seen in contemporary rural areas. The local economy of the island has shifted from small-scale viniculture to domestic tourism over the last three decades. The rise of tourism in the local economy enabled the local population to remain in the location in the light of the downfall of small-scale agricultural practices. However, it also brought about an unusual pattern of seasonal migration: temporary out migration of the static residents. Almost three quarter of the registered population on Bozcaada move to city centres in winter which is off-season for the local tourism.

The aim of this paper is to explore this recent movement by investigating the underlying reasons of this seasonal migration pattern of the local community and to contribute the existing literature on tourism in rural areas and the impact of seasonality by providing empirical evidence from Bozcaada, Turkey.Following this introduction, the second section of the paper explores the existing literature on the impact of tourism in rural areas as a route to diversification with particular focus on issue of seasonality. The third section explains the methodological approach and the data collection process. The fourth section of the paper, first introduces the case study area including its socio-economic transitions, and then investigates the seasonal migration of the local community with emphasis on their motivations. The fifth section discusses the seasonal migration dilemma on the island

Tourism in Rural Areas as a Route to Diversification

The most acclaimed feature of rural tourism, or tourism in rural areas, is its economic benefits for local populations in rural areas under circumstances of economic decline, through the diversification of the local economy, creation of new employment opportunities and establishment of a more stable economic base for development (Gannon, 1994; Iorio & Corsale, 2010; Jenkins et al., 1998; Lane, 1994; Oppermann, 1996). Additionally, social and environmental positive outcomes of tourism in rural areas in relation to rural change and development have been pointed out several times in the literature (Gannon, 1994; Hall et al., 2003; Lane, 2005; Roberts & Hall, 2001; Sharpley, 2002; Smith & Krannich, 1998). These benefits include the maintenance of local rural services such as schools and public transportation, the opportunity to increase social contact and cultural exchange in remote rural

areas, mitigating out-migration, repopulation of declining or ageing local communities, and a stimulus for the preservation and improvement of the natural and cultural heritage.

Ribeiro and Marques (2002) questioned the validity of the common argument that rural tourism is an effective tool to overcome the problems of declining rural areas via an empirical research study carried out in less favoured rural areas of northern Portugal. Their research pointed out that the actual benefits of rural tourism for the local community and the local economy in the studied areas conflicted with what the political and academic discourses suggested. They found that the employment opportunities created by rural tourism development did not meet local employment needs and that most of the created jobs were seasonal and low in quality with minimum pay. They also claimed that rural tourism did not bring sufficient benefit for the local economy due to the "inability and incapacity" of the local community to induce tourists to spend more money in the local economy (Ribeiro & Marques, 2002). However, they also highlighted that although tourism does not have a direct and immediate effect on income and employment as such, it can play an important role in the dynamics of development in remote rural areas as the 'catalysis of ideas, initiatives and energies' (ibid, p.218).

Other implications of tourism in rural areas that have been indicated in the literature include the replacement of local services with tourism-oriented facilities; displacement of less wealthy groups of local residents as prices increase; overuse and misuse of natural resources and cultural heritage; crowding, which hinders the daily life and privacy of local residents; alteration of cultural and traditional values; and conflict between different groups of local actors (Brandth & Haugen, 2011; Cánoves et al., 2004; Godfrey, 2012; Iorio & Corsale, 2010).

Issue of Seasonality

Another implication of tourism in rural areas is the seasonal fluctuation of the local economy in rural areas in relation to the seasonality of the tourism sector (Nadal et al., 2004). The temporal imbalances in visitor numbers, expenditures and employment opportunities for the local population are the most common determinants of seasonality in the local economy of the host community (Cannas, 2012). Although the seasonality of the tourism sector is widely considered to be a problem that needs to be tackled with comprehensive planning and policies (Baum & Lundtorp, 2001), Flognfeldt (2001) argued that seasonality means opportunity, especially in rural locations, where the local economy still sustains other economic activities such as agricultural production.

Alongside its economic impacts, the socio-cultural impacts on the host communities in remote and peripheral areas such as islands have been investigated by tourism researchers (Andriotis, 2005; Cuccia & Rizzo, 2011; Lundtorp et al., 1999; Ruggieri, 2015; Vargas-Sánchez et al., 2014). These studies identified that the most common problems that local people suffer during peak season are traffic congestion, access to commercial and public services, and an increase in the costs of services and goods (Baum & Lundtorp, 2001; Cannas, 2012). However, so far, the socio-cultural implications of seasonality on the host community during the off-season have been largely neglected in the literature on tourism in rural and remote areas. This paper aims to look at the other side of the coin by focusing on tourism off-season realities of the local community on a small island.

Methodology

This paper has written based on an empirical research carried out by the author which explores socio-economic and cultural transitions of a small Turkish island, Bozcaada over the last three

decades. The data is collected through in-depth interviews with the residents of Bozcaada during multi-phase case study in May-June 2015 and March-April 2016. In total thirty-nine participants took part in the study, thirty of which are current inhabitants of the island, including both newcomers and islanders. The general outline of the interviews covered the participant`s reflections on the island`s recent transitions and how they perceive these changes. Participants were voice-recorded during interview with their consent. The interviews were then transcribed in full. To analyse the transcripts some tools of the grounded theory, such as open and focused coding, theoretical sampling and constant comparison were used.

Throughout the paper identifiers are used for the interviewees. These are "ISL" which stands for the islanders who had lived on the island for many generations, "LX" which stands for the locals who moved to the island from neighbouring rural settlements in the 80s and 90s. "NC1" and "NC2" stand for the newcomers who moved to the island in the last two decades. The former is used for the ones who came in the late 90s and early 2000s and the latter is used for who moved in the late 2000s and 2010s. "OFF" stands for civil servants such as teachers who are appointed to work on the island.

The Case of Bozcaada

Bozcaada is a small Turkish island located in the north of Aegean Sea, four miles away from mainland Turkey and connected to it via a regular ferry service. The North Aegean coast of Turkey has recently become one of the most popular areas amongst ex-urbanites who decide to leave cities and set up a life in the countryside (Başaran Uysal & Sakarya, 2018). Bozcaada, as being one of the first settlement in the region that have been experiencing this increasing popularity, presents excellent examples of socio-economic and cultural changes that are seen in contemporary rural areas.
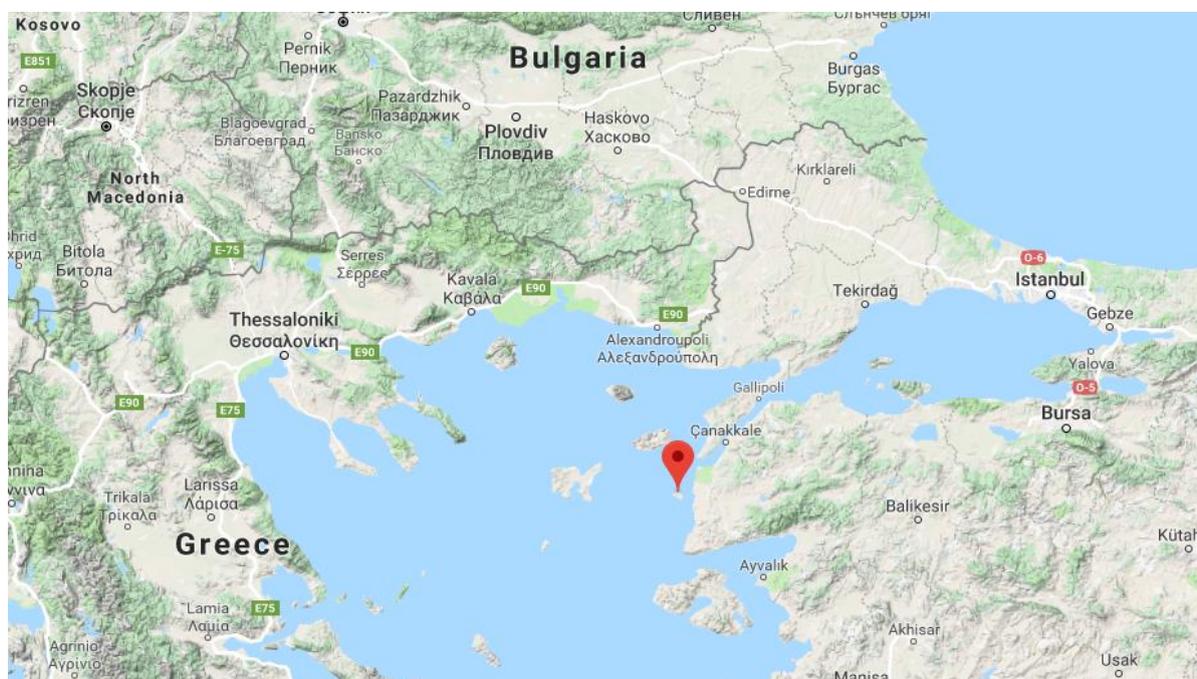
Figures 1. *Location map of Bozcaada. Source: Google Maps.*

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From viniculture to tourism

The local economy of Bozcaada was based on viniculture for centuries. During the last decade it became one of the most prominent domestic tourism destinations for Turkish holidaymakers. Even though viniculture continues to be one of the most important characteristics of the island, it does not constitute the largest part of the local economy anymore. While viniculture is only carried out by a few boutique wineries on the island, the local economy is now predominantly based on tourism with almost every household directly or indirectly involved with the local tourism.

The change occurred in the local social composition in addition the local economic change in Bozcaada. The proportion of the local population who were born in Canakkale[18], the city where the island is a district of, has continuously decreased from 69% in 1990 to 58% in 2014 (TUIK, 2015). Meanwhile the percentage of local population who were born in Istanbul increased from 3% in 1990 to 11% in 2014[19] (ibid). This represents a clear indication of in-migration of Istanbulians which enabled gentrification process on Bozcaada with dramatic increase and inflation in the local housing market and noticeable cultural and aesthetic changes on the island (Okumus, 2018).

At the end of the 1990s and the beginning of the 2000s these two main pillars of transitions on Bozcaada interlaced and supported each other and challenged the traditional socio-economic and cultural on the island. On the one hand, the newcomers who were mainly middle-class, well-educated urbanites with knowledge of and experience in the service sector, as opposed to long-term residents, triggered professionalization in the local tourism businesses and helped the marketing of the island. They also initiated the renovation of the local architectural heritage and raised awareness of the local cultural heritage and environmental qualities of the island. This certainly helped to create a prominent domestic tozurism destination on an economically declining island due to common struggles of small-scale farmer (Keyder & Yenal, 2011) at that time. This intertwined socio-economic and cultural transitions of the island created a complex structure with unforeseen implications. One of the implications that this paper focuses is seasonal out-migration of the local residents on the island.

Seasonality of the local tourism

Since tourism started to take up larger space in the local economy, the life on the island became dominated by tourism. In parallel with domestic tourism trends in Turkey, the highest tourism season for domestic tourism on Bozcaada is a three-months period between mid-June and mid-September, that covers the formal school holiday period. Apart from the main tourist season, the period from April to November constitutes the shoulder season in domestic tourism for Bozcaada, with visits usually limited to weekend breaks and bank holidays. The period from December to March is the tourism off-season for the island`s tourism (see Figure 2).

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[18] This assumption would certainly benefit from detailed statistics in and out migration of the island. However, this data was not available to the researcher in district level. It is only available in regional and provincial level. Therefore to be able to present proportional change in the local population, birthplace of the residents were used.

[19] The proportion of the local population who were born in other cities remained below 3% during this period.

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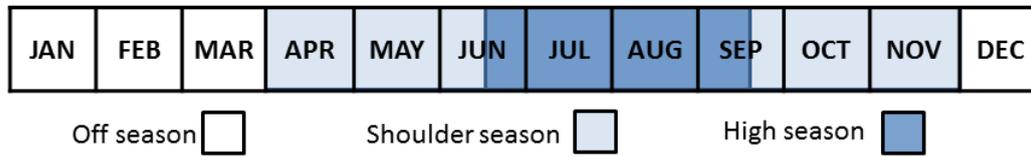
Figure 2. Tourism seasons on Bozcaada. Source: (Okumuş, 2018).

The dramatic changes between high season and off-season are observed in the island`s socio-cultural life as well as in the local economy. Due to absence of data, exact numbers of visitors are not known. Nevertheless, Graph 1 shows the number of ferry tickets issued from 2011 to October 2016 between Geyikli and Bozcaada. As this ferry service is the only way of reaching the island from the mainland, this graph is only material available to present how the number of visitors fluctuates seasonally. However, it should be noted that the data used to produce Figure 3 shows the number of tickets issued for pedestrians and vehicles. Passengers traveling inside in a vehicle are not ticketed. Therefore, it would be only right to interpret it proportionately.
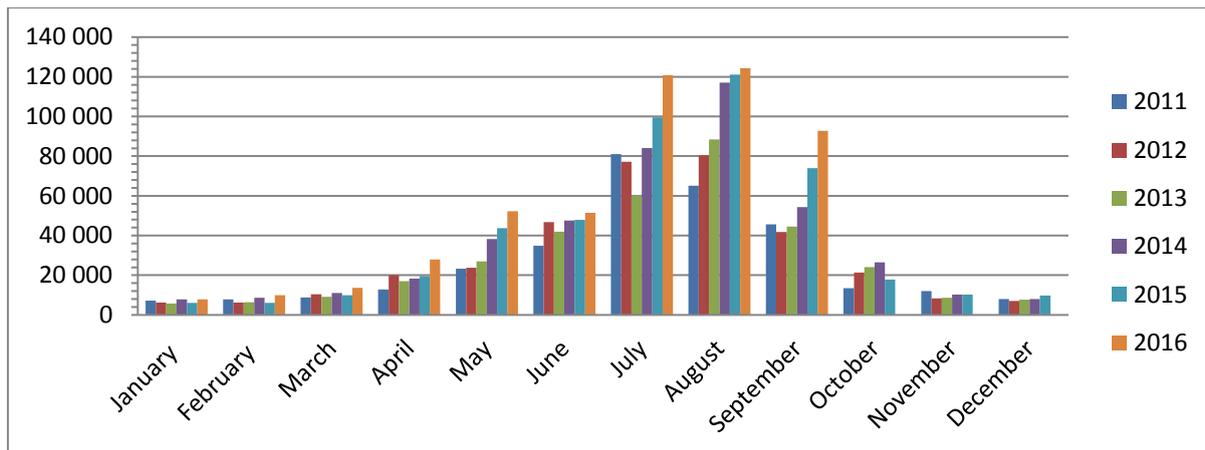
Figure 3. Number of ferry tickets issued to the island between 2011 and 2016. Source: produced with data from Bozcaada Municipality, 2017).

The most significant change between high season and off-season occurs in the size of the local population. The number of people staying overnight goes up to approximately 10,000 people in summer. The crowds, traffic congestion, pollution are the most important issues deriving from this dramatic population increase in summer. Below quotes of the interviewees illustrate and summarize the general frustration felt among the local community during the high season.

'*We live on an island but cannot enjoy the beach or local coffee shop in summer. There is no table in the restaurant we usually eat at. People are everywhere. You see people sleeping in their cars if they cannot find a place. It is too much. Sometimes we cannot even find bread in the bakery.*' (OFF-A)

'*We put up with summer since we make money; otherwise it is unbearable for us.*' (ISL-A)

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There are different issues starting to emerge in winter in recent years during the quietest months of the island. According to the interviewees the most prominent issues on the island is accessibility. The only means of transportation between the island and the mainland are the ferries run by a semi-private company. Due to the numbers of passengers differing greatly in winter and summer, the number of return journeys decreases to three times per day in winter from the eight to ten in summer. Besides, due to its geographical location, Bozcaada is open to strong winds from the north and the northeast in winter. In the event of these strong winds, ferry journeys are often disrupted or cancelled. These climatic conditions and the decreased number of journeys on the ferry schedule create an inconvenience for the local residents, who are dependent on the ferry to reach to the mainland and to receive supplies from the mainland.

> '*I have an appointment in the hospital, or in the courthouse. If the ferry isn't running that day at that time, you have no option but to cancel everything. Or if you are there* [on the mainland]*, you aren't able to come home. It is fine if you can find a place to get through the night. Otherwise, you sleep on a bench.*' (LX-F)

The implications of seasonality such as decline in population, withdrawal or temporary suspension of services, and underutilization of economic resources that are documented in the tourism literature are also in presence on the island during off-season. However, the seasonal out-migration of the residents as it is seen on Bozcaada has currently not been documented in the literature.

Seasonal migration of the local population

The usual off-season on Bozcaada is the period from December to March. The dramatic changes between high season and off-season can be observed not only in the island's economic life but also its socio-cultural life. Even though the registered population of the island approximately 2,600 people, the number of people who spend the winter on Bozcaada is gradually decreasing over the last five years. Although there is no official data provided, the winter population of the island is assumed to be between 500 and 700 people as in 2016. The majority of those who migrates in winter go to the city centre of Çanakkale (the province the island in located), while a few families go to Istanbul or other cities.

> '*The population here used to be 2000 and something but [now] 600–700 people stay here in winter. Every year there are 10–20 families leaving the island for winter. This winter there will be even fewer [people remaining], maybe 400 people.*' (LX-B)

The seasonal out-migration of the static population on the island starts as the tourism high season ends. It also causes a disruption to family life for some of the migrating families as the mother and the children move to the city centre and the father stays on the island. The family usually reunites on the island during school holidays and weekends. However, this pattern also started to change in the recent years as the families prefer to reunite in the city centre instead.

The profiles and the motivations of those who move to the city centre in winter is a topic of discussion among the local community. However, access to private/specific education for families with children and health concerns for elderly due to limited accessibility are the most common motivations. The cost of living and lack of social and cultural life on the island in winter are the other reasons that lead the residents move to the city centre.

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Education

As perceived by the interviewees, the first and the most important reason for seasonal out-migration is the insufficiency of education provided on the island. Currently, there are three state-run schools on the island that provide all three stages of compulsory education for the local children; the primary school, the middle school and the high school. In 2016, the primary school provided education for 55 local students aged from six to ten, while the middle school had 47 local students aged between 10 and 14, and the high school had 18 students aged between 14 and 18.

According to many interviewees, the quality of education provided at the local schools seemed to be problematic. Although they agreed that there was insufficient education, they differed on the underlying reasons behind this situation. The quotes below present examples of such differences. The first quote from ISL-B believes that education is better in the city, and he shared his intentions of moving to the city "eventually" for his daughter's education. The second quote from LX-F drew attention to a very vital point that connects the quality of education with the living standards of teachers on Bozcaada. He suggested that due to the cost of living and the lack of affordable housing on the island[20], the local teachers are not "happy". He claimed that this situation affects the quality of education they provided for the children.

> '*We are here all year round now as our daughter is still young but will move to the city eventually when she starts primary school. Education is better there.*' (ISL-B)

> '*The schools are not good … teaching is not sufficient … also teachers are not happy, they try to get by here with a limited budget. Everything is expensive for them. First of all they cannot find a place to live. So how can this person teach properly if she is not happy?*' (LX-F)

However, some interviewees believe that people use education as an illegitimate excuse and that public education on the island is even better as the local children receive almost private, one-to-one education due to low number of students registered in the local schools. Additionally, the recent regional and national awards that are received by the students in the local primary and middle schools supports their claims (Bozcaadahaber, 2015, 2016).

> '*There are many people who became doctors and lawyers from here. How did they make it then if the education is so bad here?*' (ISL-A)

Health concerns

Inadequate heath facilities on Bozcaada were another reason expressed by the interviewees for the seasonal out-migration. Although there is a community health clinic on the island, this clinic is only able to meet the basic medical needs of the local community. For more particular or life-threatening emergencies, patients are transferred to the nearest general hospital on the mainland by ambulance via the ferry or a helicopter. However, harsh weather conditions in winter do not always allow the ferry to operate or a helicopter to land.

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[20] With the boom of tourism the housing demand on the island exceeds the supply, the prices and rents of the existing houses increase enormously. This has an immense effect particularly on the people who came to work. The civil servants who are appointed to work on the island such as doctors and teachers have difficulty finding affordable places to live all year around. The local landlords prefer to rent out their houses in summer to holidaymakers for a short period.

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'*We still don't have a proper hospital. Last year my father had a heart attack. We took him to the general hospital in 20 minutes thanks to the helicopter. But this was in summer. Imagine if it had been winter and the helicopter couldn't operate because of storms. Then he would have died. This has happened to many people here. People died because they couldn't take them to the hospital. So especially the elderly are afraid of staying here in winter.*' (ISL-D)

'*Elderly people are afraid to be here in winter. And they are absolutely right. Sometimes even I feel that fear at the times when the ferry can't operate because of storms. So if they can, they spend the winter in Canakkale instead.*' (LX-B)

Cost of living

Since only means of transportation to the island are the ferries, suppliers use the same ferry service to deliver goods to the island. Depending on products, the local costumers are charged more to cover the cost of transportation by the suppliers. This is reflected on the cost of heating at most. Many people on Bozcaada still use wood burners for heating, with only a few houses fitted with gas central heating, as the running costs are very high. The gas for those houses is carried by tankers on a separate ferry, which increases the cost for the buyer even further and prevents many families from using central gas heating. On the other hand, the houses in the city centre with central heating provide a comfortable option with lower running costs. Therefore, comfort of living in an apartment in the city centre at relatively lower cost appeal to people in winter.

'*For example, she got tired of lighting the stove. She went to Canakkale [the city centre], and pays 500 lira rent including gas and water. It is very comfortable and convenient. Because she has money now, she doesn't want to put up with this [the tough conditions on the island] anymore.*' (ISL-A)

'*For the first time my mum rented a flat in Canakkale this winter and stayed there four or five months. It has central heating. They can go out whenever they want. They went to the cinema for the first time.*' (LX-A)

"New trend"

Although health concerns, education and the cost of living are claimed to be the reasons why people move to the city for winter, many interviewees believed that those are acceptable excuses and that spending the winter in the city is just a "new trend" among the local community. It was suggested that spending the winter in the city centre is seen as an indication of social status and a way to ostentatiously display their increased wealth to others. During the interviews, this phenomenon within the island was emphasised by the mayor as well as the community members.

'*This is a new trend. Living in Çanakkale in winter has become a symbol of social status on Bozcaada.*' (Mayor)

'*People move to Çanakkale in winter just to show off. They come here at weekends and say how comfortable they are there.*' (LX-F)

'*They don't want to be outdone. 'Her kid goes to that school in the city, I will take mine there too,' they say. Just not to look beaten*.' (ISL-A)

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In addition to such ostentation, many of the interviewees attributed the winter migration to the increase of the local population's economic power through the development of local tourism on the island in the last two decades. The standards of living in cities may seem much higher than on the island for many people in the local community, especially the ones who have never previously experienced living in a city. Such city life may be highly desirable for those who have suffered from the difficult conditions of living on the island. As an interviewee below pointed out, such an experience of "life in the city" was not previously affordable for many people in the local community. Since the purchasing power of the residents has been increasing with the local tourism sector, they became able to afford another house in the city centre.

> '*Not everybody could afford to go to and live in Çanakkale [the city centre] before. Since people started to make money, they got a chance to live in another place in winter.*' (LX-A)

> '*Tourism finances this [winter migration]. The purchasing power of the people increased with tourism. Everybody has a business [in tourism] here. They work in summer, make money and spend it in Çanakkale in winter. So, tourism finances this migration.*' (ISL-D)

The islander quoted above suggested that the local tourism development on the island was used as a tool to fulfil a dream that a part of the local population had had previously. Therefore, it can be seen as one of the outcomes of tourism development in the case of Bozcaada.

Inevitably, this dramatic decrease in population has an impact on local socio-economic life. Many B&Bs and hotels are closed during the winter. Only two restaurants continue in service according to the interviewees. The very crowded and lively streets of Bozcaada turn into a deserted village in winter. During the interviews, one of the interviewees, LX-A, stated, 'It became a camping site', using 'camping site' as a metaphor to emphasise how the island became a place where people live seasonally. [21] Another interviewee, ISL-B, stated 'now, life is part-time here', referring to the change in the island's social and economic life in winter.

Since the number of residents spending the winter on the island decreases year by year, public services provided by the state or private companies started to be withdrawn from the island, as there is not enough demand for the service. One of them, the most talked about, is Bozcaada Adliyesi (the courthouse). The courthouse was relocated to the mainland in 2014, to Ezine, which is the nearest district. Other public services relocated from the island due to diminished workload were a pay office of the regional electricity supplier and a district branch of the Weather Office. Although the relocation of these services does not seem to have a direct effect on the public services provided for the residents, it has caused a further decrease to the number of year-round residents in Bozcaada, as the personnel employed move off the island together with the services.

A Vicious Circle of Out-migration

The remarkable difference of population in the summer and winter seasons severely disturbs the social and economic dynamics of the island. Unlike the other examples of seasonal migration in the literature, this seasonal population difference is not only caused by

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[21] In Turkey, camping sites are mostly used in summer. In winter, these areas turn into ghost towns, with facilities left unattended.

holidaymakers who own second homes on the island, or seasonal tourism workers, but also long-term residents of the island who migrate to the city centre to spend winter and return at the beginning of the tourist season.

On Bozcaada, this issue of the seasonal migration of the local population has created a vicious circle in the local social and economic life of the island. The prevailing causes of this seasonal migration, as perceived by the local community, are the lack of social life, shortage of services and insufficient economic activity on the island during the winter months. Nonetheless, these presumed causes are indeed an outcome of the decrease in the residual population due to the seasonal migration of the locals.

In addition, the issues of accessibility and cost of living are also seen as drivers of the seasonal migration. It is important to note that this seasonal migration of the local population is a recent occurrence on the island. Seasonal out-migration from Bozcaada did not previously take place, despite the presumably more severe conditions and poor living standards of the previous decades, which supports the claims of some interviewees that these are `just excuses´. However, it shouldn't be overlooked that the lifestyle and expectation of the residents might have been change alongside the evident socio-economic transition of the island last three decades.

Efforts to avert the seasonality issue of the island by local administrative bodies focus on two different objectives. The first is the reinvigoration of the local economy in winter by extending the tourist high season; the second is the rejuvenation of local social life by organising cultural activities for the local population during winter. Nonetheless, the issue of seasonality on Bozcaada is neglected by higher-level administrative bodies that have power in terms of being able to impact the issue comprehensively, such as the regional development agency. Also, it is very likely that the efforts of the local bodies will remain ineffective in addressing the issue as long as they keep looking at it from the same perspective and agreeing with the reasons for this migration pattern that has created a vicious circle.

What tend to go unnoticed behind the shadow of this vicious circle of seasonal migration from Bozcaada are the transitions in the community alongside those in the local economy and the social structure of the island. The changes that tourism brought to the local community are not limited to their socio-economic status. The expectations and desires of the local people have altered, as well as their purchasing power. Besides, it is inevitable that social and cultural exchange and interactions with a wider spectrum of the public due both to tourism and gentrification on the island would result in changes in their lifestyle desires.

Additionally, although this form of seasonal migration can be linked with lifestyle migration as a conceptual framework, since the main motivation of migration is a quest for a "better way of life", it contradicts the lifestyle migration literature, which usually highlights a pattern of migration from urban or non-urban areas to rural or remoter areas (Åkerlund & Sandberg, 2015; Oliver, 2011; O'Reilly & Benson, 2009). In contrast, the seasonal migration of Bozcaada's local community is towards the city centre, which is usually associated with economic motivations. This presents a reverse migration pattern in terms of motivations and destinations.

Another topic of discussion can be raised on whether this new phenomena on the island should be described as a case of "migration" or "mobility" since the move of the residents is only temporary. As Barcus and Halfacree (2017, p. 93) explained migration as "a move seen as signifying an intention to reside at the destination" by removing the issue of time (or duration

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of the movement) on separating migration from mobility, but also added that it is a complex and multidimensional concept that needed to be seen in very individual terms.

Moreover, as noted in Barcus and Halfacree (2017), the most understanding of migration within everyday life is based on sedentarism. How we define "home" or "usual address" and whether the relocation is "permanent" are examples of sedentarist understanding of migration. However, in the 'era of mobilities', this sedentarism is being challenged and it is becoming even more complicated to announce a single such location and to predict the residential future of the migrant. In the case of Bozcaada, this enhanced mobility might be seen as an example for this. Nevertheless, more research, that is specifically focusing the motivations and perception of the movers, has to be undertaken to understand and predict a future trend.

Conclusion

To conclude, it is a common rhetoric that an increase in employment opportunities and social and physical infrastructures in declining rural areas will reduce out-migration of local populations. However, as seen in the case of Bozcaada, employment and social development may not be sufficient to retain a local population that has been going through such pronounced transitions. Although the permanent migration of the local community might have been avoided, another form of migration has been created: seasonal migration, which has resulted in the disruption of the annual cycle of Bozcaada. This cycle has already been upset previously, with a substantial sectoral shift in the local economy from viniculture to tourism. The viniculture-oriented, conventional rural life of the island first became tourism-oriented, based on peak seasons of tourism such as the summer, long weekends and bank holidays, with the intensification of the tourism sector on the island that began at the end of the 2000s. Then, in line with the seasonality of local tourism on the island, this annual cycle started to break down with the out-migration of the residents in winter, which had an immense effect on the economic and socio-cultural life of the island. If the remaining winter population continues to decrease every year, it is highly likely that the island will become a "campsite"; a temporary settlement, usually set up in summer, with a vibrant environment and full of people, but turning into a ghost town in winter.

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Participation Game: Reflections on the Iterative Design Process

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Civic engagement in decision-making concerning the built environment has become a widely acknowledged practice. Today this is no longer about the dilemma of civic engagement, but rather about the best strategy for the purpose. Games and gamified applications are gaining popularity as efficient tools for civic engagement, which attract and retain participants, as well as foster learning and experimentation. The article presents the case of a role-play urban design game, Participation Game, which was developed in the iterative design process. The initial prototype of the game was transformed from session to session based on the player feedback, collected through questionnaires and debriefings, as well as the analysis of video recordings of game sessions. The overarching goals of the game were, firstly, to familiarise the audience with public hearings of urban design related projects, and, secondly, to find out how the changes in the setup of the game influence the player experience and the outcomes. The findings indicate that game setup limits the opportunities for discussion, and might even steer it towards desirable (for game authors) outcomes.

Keywords: case study, iterative design, role-play, serious game, urban design

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Introduction

Civic engagement in urban planning has become a widely acknowledged and increasingly normalized practice in the Western developed economies. Since 1970s the requirements for civic engagement in discussions of urban planning issues are being gradually included in the legislation of democratic countries (Shipley & Utz, 2012). According to Irvin and Stansbury (2004, p. 56), today this is no longer about the dilemma of civic engagement, but rather about the best strategy for the purpose.

Games and gamified applications are gaining popularity as efficient tools for civic engagement, which attract and retain participants, as well as create space for experimentation, facilitate learning and consensus building, or, alternatively, allow crowdsourcing ideas and experiences (cf Gordon et al., 2017; Thiel et al., 2017). The games, designed for purposes beyond entertainment, are referred to as "serious games" (Dörner & Spierling, 2014). Serious games pose a set of challenges for designers, as they require from a designer the mastery in game design, as well as the knowledge of educational theory and the domain in focus (Winn, 2009).

One of the approaches towards serious game design is the progressive iteration, which includes prototypes, play-tests, feedback collection and analysis, and transformation of prototypes based on the findings (ibid.). The approach urges for a prototype which is developed enough to be playable, and, at the same time, encourages addition of new rules and narratives (Gugerell & Zuidema, 2017). Additionally, iteration requires an elaborate methodology of data capture of user game play experience, opinions and suggestions (Constantinescu et al., 2017).

The current article presents a case of Participation Game, a role-play board game, which simulates negotiations between stakeholders with diverging interests about the future development of two vacant land plots in the neighbourhood. The goals of the game stem from the research on community engagement practices in the Baltic context, namely, in Riga and Tallinn. The research examines two cases, community engagement in the design process of detailed plans for urban areas Mezapark in Riga and Kalarand in Tallinn. In case Kalarand the community managed to negotiate more public benefits, then in case Mezapark, arguably, due to the presence of an active community with a clear vision, and an informal appropriation of the space in focus of a detailed plan by the community (Prilenska et al., 2019). The initial goal of the game was to find out how does the presence of a community and the common vision among the members of the community, as well as the appropriation of public space by the community or individuals, affect the outcomes of negotiations about the future development of a space in focus of a plan. The game was developed iteratively during a series of five game sessions and was adjusted after each game session based on user behaviour and input. In the course of designing the game and its goals transformed substantially. The article focuses on the progressive design of the game, and discusses game sessions, their outcomes, and the changes made to the game based on the outcomes.

Theoretical Foundations

Games are believed to foster active learning, or "learning by doing", as they offer to a player a set of progressive challenges, with the adequate support and instant feedback (Winn, 2009). Learning by doing creates space for experimentation, for playing out the real-life situations without real-life (often, undesirable) consequences, thus, preparing players for real-life challenges (Gordon & Baldwin-Philippi, 2014; Gordon et al., 2017). Furthermore, games represent complex real-life phenomena as simplified models, thus, fostering understanding

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and resolution of complex problems (Constantinescu et al., 2017). Some authors suggest, that learning *per se* for humans is an enjoyable activity, and that (video) games are enjoyable specifically due to the learning principles they are usually based on (Gee, 2013). Above all, games evoke emotional experiences, which, again, per se for humans is a strong motivation (Geher, 2018; Yannakakis & Paiva, 2014).

Games, which are designed for other purposes, rather than amusement, such as learning particular content or deliberation, are referred to as "serious games" (Ampatzidou et al., 2018; Dörner & Spierling, 2014; Winn, 2009). Serious games entered the urban planning domain in the 1960s, when urban policy games CLUG (developed by Feldt in 1960s) and Metropolis (developed by Duke in 1964) were developed (Duke, 2011; Feldt, 2014). These games were intended for educating planning students and local government representatives about land-use and budgeting issues (Duke, 2011; Feldt, 2014). Later, serious games were introduced into civic engagement activities with an intention to develop "a shared understanding" of a phenomenon, define common goals and identify a range of action vectors (van Dijk & Ubels, 2015, p. 464; Sanoff, 2000). Recently, after the success of pervasive smartphone games Ingress (Niantic, 2012) and PokemonGo (Niantic, 2016), a constellation of serious games emerged, which focus on sourcing ideas and experiential information about the built environment from the players (cf Thiel et al., 2017; Prandi et al., 2017; Wilson et al., 2019).

In games for civic engagement specific attention was paid to role-play for deliberation (cf Gordon et al., 2017; Sanoff, 2000; Tan, 2014). Innes and Booher (1999) conceptualise deliberation within a group of stakeholders as a role-play. Stakeholders bring to the table a set of roles associated with certain perspectives (ibid.). These roles include, but are not limited to professional - a representative of a governmental institution or a lobbyist, personal - a parent or a cyclist, as well as the roles as participants in the discussion - a naysayer or an enthusiast (ibid.). Consensus building (or dialogue) calls for the ability to suspend the usual perspectives and welcome other possible perspectives (ibid.; Gordon et al., 2017; Johnson et al., 2017). Thus, games, which include role-play, allow players to practice the art of reasoning and acting from unusual perspectives, as well as develop the awareness and empathy towards positions, which differ from their own.

Designing serious games is a challenge, as serious games have simultaneously be entertaining and fulfil certain serious tasks (Winn, 2009). In serious games educational theory, domain knowledge and game design converge (ibid.). Winn (2009) suggests DPE (design, play, experience) framework for developing serious games focused on learning. The DPE framework implies an iterative design process, where 'the designer designs the game, the player plays the game, which results in the player's experience', and the designer adjusts the game based on the experience of play-tests (ibid., p. 1014). Conducting the play-tests with the target audience is crucial, as the game is adjusted based on player feedback (ibid.).

Several authors report iterative game (co-)design experience with perspective audiences. The attempts to co-design games from scratch did not work out as intended, as target audiences often do not have the essential knowledge about the domain in focus and/or game design (Khaled & Vasalou, 2014; Gugerell & Zuidema, 2017). Transformation of a barebones prototype, which allowed modifications based on player input yielded better results (ibid.; Constantinescu et al., 2017). Player input was collected through observations and debriefing (Gugerell & Zuidema, 2017), interviews and surveys (Prandi et al., 2017), video recordings and player move tracking sheets (Constantinescu et al., 2017). Gugerell and Zuidema (2017) note, that the completion of an ambiguous rule set with co-designers could be the focus of a serious game itself.

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Methodology

The game

The game was designed to reflect the prevailing community engagement practice in the Baltic countries (and worldwide) - the public hearings (Prilenska et al., 2019; Rowe & Frewer, 2000). Public hearings usually involve stakeholders directly affected by a project, plan or policy, such as local residents and entrepreneurs. During the public hearings the final version of a project, plan or policy is presented, followed by the questions, answers, objections and proposals round. Therefore, the game represents a board game, where players take over the roles of stakeholders with diverging interests and involve into discussion about the proposal of an upcoming project in the neighbourhood.

The game was developed for educational context, and its target audience are university students and high school pupils. The game was developed and tested iteratively from March 2018 to January 2019 in a series of five game sessions, and was modified after each game session based on player feedback. The overarching goals of the game are twofold, on the one hand, to familiarise the audience with public hearings of urban design related projects, and, on the other hand, to find out how the changes in the setup of the game influence the player experience and the outcomes.

The interface of the game consists of the narrative, role and voting cards, information and visioning boards. The appearance and the content of the information and visioning boards developed substantially in the iterative design process (Figure 1; Figure 2). The appearance of the narrative, role and voting cards had minor changes, while the content had major changes (Appendix 1; Appendix 2). The gameplay had minor changes (Table 2; Table 3). Section 4, *The evolution of the Participation Game*, describes in detail game sessions, player feedback and the changes made to the game based on the player feedback.

The urban area in focus

The game is set in Mukusala neighbourhood in Riga, which is currently in the focus of public attention due to its relatively rapid transformation. The neighbourhood is located on the left bank of Daugava across the city centre on the right bank (Figure 3). The neighbourhood is populated since 1250s, and used to house a female monastery. From 15th century until mid-18th century the area used to serve military purposes. From the mid-18th century until now the area developed as mainly industrial area with a few low-income housing patches. Currently, the area represents a mix of large vacant plots, industrial buildings (mainly workshops for small low-tech businesses) and low-rise low-income housing (detached houses or small apartment blocks). Compared to other central areas the neighbourhood is scarcely built and the quality of existing building stock is poor.

Due to strategic location close to the city centre and at the intersection of main transportation lines the city council designated the area as a priority development. Since 2009 a number of "anchor" objects were developed, such as a shopping mall, Latvian National Library, a business centre, a university campus and a few luxury housing estates. In the near future Rail Baltica high-speed railway line will go along the northern border of the neighbourhood. In 2017-2018 the area was in the focus of student urban design competition, which involved urban planning and architecture students from University of Latvia, Riga Technical University and RISEBA. In 2019 the area was in the focus of MadCity conference and hackaton in urban planning. Therefore, some perspective players were familiar with the area.

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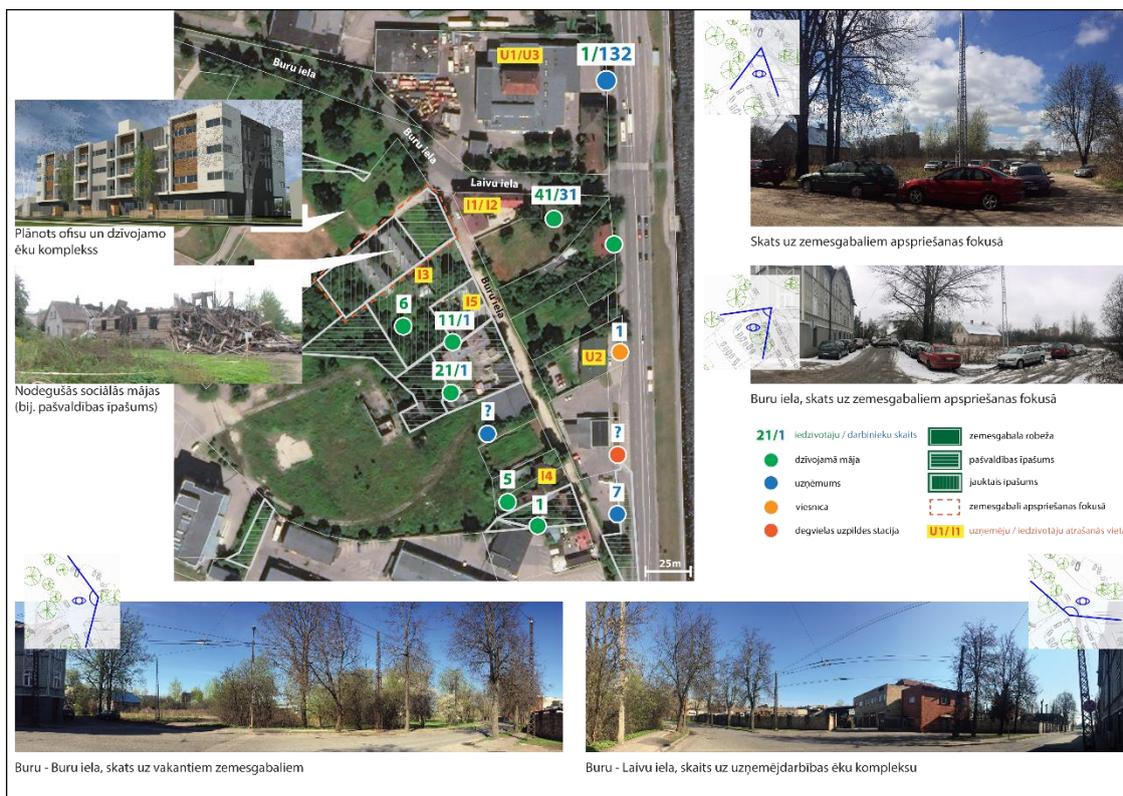
Figure 1. *Two dimensional information (top) and visioning boards (bottom), session 1. Source: © Viktorija Prilenska.*

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Figure 2. *Three dimensional information board, visioning board and building units, game sessions 4 and 5. Source: © Viktorija Prilenska.*
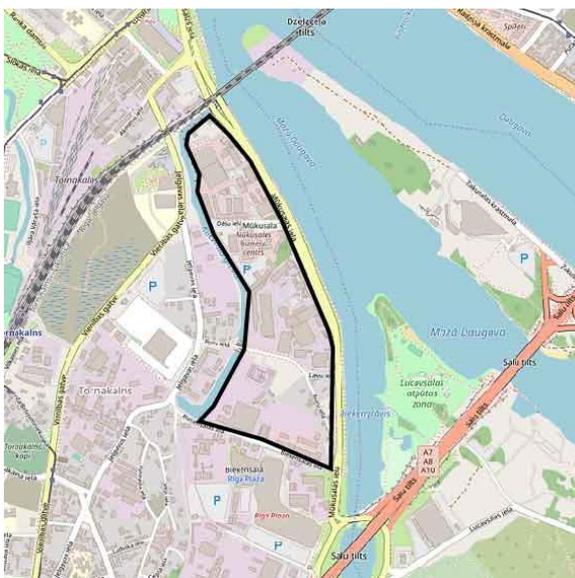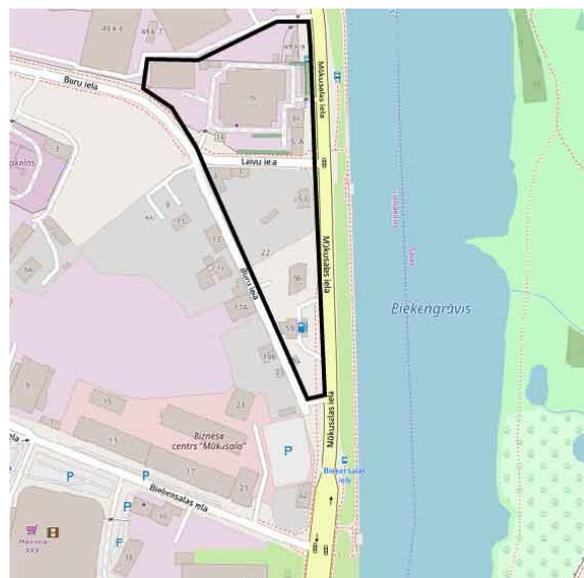
(a) Mukusala neighbourhood.   (b) The location in focus.

Figure 3. *The urban area in focus. Source: © Viktorija Prilenska.*

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Data collection and analysis

Game sessions. Players were recruited through university professors (or school teachers). Four sessions were conducted with students in architecture and urban design (20 participants), urban studies (8) and sociology (9). One session - with high school pupils (23). The number of players per game session varied from seven to 23. With 21 players and more the game took place simultaneously at two tables. Game sessions took place on 8 May 2018 in Riga, 12 August 2018 in Hamburg, 23 November 2018 in Tallinn, 25 January 2019 and 1 February 2019 in Riga. Four Game sessions took place at university campuses and one - in the premises of Riga planning department. There was no intention to play the game outside the educational context as real-life stakeholders, such as residents or local entrepreneurs, are not interested to participate in activities of experimental nature with no perspective of incorporating the results into real-life plans or policies (cf Brown & Chin, 2013; Horelli, 2002).

Video, audio and photo records. Each game session, including the debriefing, was video (four sessions) or audio (one session) recorded, and the outcomes were photographed. The camera (microphone) was placed at the short side of a table, fitting the majority of participants into a video frame. Additionally, the positions of roles at the table were documented. The video (audio) records were divided into five-minute fragments, and each fragment was thematically analysed. The themes were pre-established, and included the number and roles of discussants, the opinions expressed and activities performed, as well as group dynamics. For the sample of thematic analysis of a video fragment refer to Appendix 3.

Observation. One game session was observed by a non-participant, who documented the power dynamics between the roles and players taking on these roles. The observer summarised the observations in as a narrative of ca. 300-400 words.

Evaluation forms. After the Game session players were requested to fill in anonymous evaluation forms. The evaluation forms contained the options for numeric and textual assessment of the game. Players were offered to rate the aspects of the game from "1" to "4", "1" meaning unsatisfactory and "4" meaning very good. Players were, also, offered to elaborate in text the reasons for the assessment. The aspects of the game included the quality of introduction into the game, game interface, legends and role description, engagement, enjoyment and the degree of realism. The evaluation forms were analysed by means of an Excel spreadsheet. The average score of numerical evaluations was derived. The textual parts were analysed thematically, measuring the frequency of appearance of similar judgements. For the sample of the evaluation form refer to Appendix 4.

The Evolution of Participation Game

The initial setup of Participation Game

The narratives. In Mukusala neighbourhood there are two residential areas. One area is relatively isolated from the industries by a channel. The other area borders the industrial area, and, thus was selected as a game location. In the area there are two small apartment buildings, detached residential buildings, a hotel, garages and a large complex of workshops for low-tech enterprises (a former radio factory). The land is mainly privatised and belongs to physical or legal persons. There are two land plots, which belong to the city council, and used to house two two-storey wooden social houses with bad reputation. The houses burned down in 2015, and currently the land plots are vacant. The employees of adjacent enterprises use the land plots as an informal parking lot.

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According to the in-game narrative a local landlord, who rents the workshops to small enterprises, wants to buy a land plot from the city council and build a parking lot for the employees. Local residents and entrepreneurs are invited to the public hearings of the project. Some locals prefer to have a recreational space instead of a parking lot, whereas the others prefer a parking lot. The task of the stakeholders is to reach a consensus about the future development of the land plot. Building on the research about community engagement practices in the Baltic context, there were two variables, (1) the community and (2) the appropriation of space, which make four couples, resulting into four in-game narratives (Table 1).

The role cards. The game has the following roles: three local entrepreneurs, five local residents, city council representative, planner, observer and moderator. All roles, except for a planner, observer and moderator, have the voting rights. The role cards contain the brief description of the situation and challenges. As the roles are location bound, the cards contain a picture of the house/enterprise and a code (R1, R2, E1, E2, etc.). The codes mark house/enterprise location on the information board. Depending on the number of participants the number of roles may vary, e.g. the roles of one entrepreneur and two residents can be excluded. For the sample of a role card refer to Appendices 1 and 2.

Table 1. In-game narratives

Nr. 1. Community + no appropriation of space	Nr. 3. No community + no appropriation of space
Present: informal parking lot Planned: parking lot The community is invited to the public hearing of a parking lot project and offers an alternative proposal - a recreational space	Present: informal parking lot + a degraded house Planned: parking lot The community is invited to the public hearing of a parking lot project
Nr. 2. Community + appropriation of space by community	Nr. 4. No community + appropriation of space by individuals
Present: informal playground + a meeting place Planned: parking lot The community is invited to the public hearing of a parking lot project and offers an alternative proposal - a recreational space	Present: informal playground + a meeting place + a degraded house Planned: parking lot The community is invited to the public hearing of a parking lot project

The information and visioning boards. The information board contains general information about Mukusala neighbourhood: photographs, building functions, the number or residents/employees in each building, land plot division and ownership (Figure 1, (top)). The visioning board contains the sketch of an existing situation and the sketch of a planned future situation - a parking lot (Figure 1, (bottom)). The visioning board is complemented by translucent sheets of paper and colourful felt-tip pens for sketching on top of the existing or a planned future situation. Additionally, the visioning board for narratives Nr. 1 and 2 contains "a community proposal", a spatial vision designed by the author, which the community members are supposed to lobby.

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The gameplay. The game has three rounds and lasts roughly two to three academic hours (90-120 min), including the evaluation of the game and a debriefing. Firstly, the author introduces the game, its goals and context. Then the roles are distributed randomly, players take seats at the tables assigned to them, read the role cards, ask questions (if any).

In the first round players one by one name their roles and express the opinions about existing and planned future situation. The round ends with voting for or against the future planned situation - a parking lot, and, in narratives Nr. 1 and 2, "a community proposal". In the second round players discuss voting outcomes and suggest alternative proposals. "The planner" sketches a new vision, based on proposals of other players. The round ends with voting for or against the new vision.

If players voted unanimously for the new vision, then in the third round players one by one express their opinion about the vision. If players did not manage to reach a consensus, then "the representative of the city council" takes the final decision and explains it to other players, whereas other players one by one express their opinions about the final decision. In the end of the game session players fill-in game evaluation forms and discuss the dynamics and the outcomes of the game. The timing of activities is reflected in Table 2.

Table 2. The game-play, session 1 and 2.

Activity	Time (min)
Presentation	10
Round 0 - distribution of role cards - taking seats and reading the cards - questions and answers	10
Round 1 - naming roles and expressing opinions about existing and planned situation - voting for or against planned situation	10
Round 2 - discussion of the voting and alternative proposals - development of an alternative vision - voting for or against an alternative proposal	20
Round 3 - if consensus, then expressing opinion about an alternative vision - if no consensus, local government takes the final decision and explains it, others express their opinions about the final decision	10
Filling-in Game evaluation forms and a Coffee break	10
Debriefing	20
Total timing	90

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Game session 1

Game setup. The game session was conducted with master students in sociology and in architecture (21) as a part of a course related to urban studies. Players had Latvian background and were familiar with the Mukusala neighbourhood. The turnout of students (21) was a half from the expected (40-45), therefore two narratives instead of four, Nr. 2 and 4, were tested, which were different from each other by the variable "the presence of a community". In both narratives the space was "appropriated" by either the community or individuals, meaning that the locals have arranged an informal recreational space on the land plots. Figure 4 shows the fragments of the visioning board, (a) reflects the "present" situation, whereas (b) reflects the "planned" situation. Figure 5 (a) shows "a community proposal", designed by the authors, which the community was supposed to lobby. The goal of the first game session, was to test the initial premises of the game, and the methodology of data collection and analysis.

(a) Present situation, narrative Nr. 4.   (b) Planned situation, narrative Nr. 2.

Figure 4. *Fragments of the visioning board, game session 1. Source: © Viktorija Prilenska.*

Game play. In each 5 min interval more than half of the players were engaged into discussion. Game rounds were well articulated, as each game round ended with a sketch and voting. The players did not like neither the parking lot proposal, nor the "community proposal", and voted against both of them in the first round. In the second-round game rules and the moderator encouraged the player with a role of a planner to make a sketch. However, it worked only partially, as other players, also, participated in sketching or showed the desire to participate in sketching. Although the roles of planners were assigned to architecture students, they did not

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have a sufficient knowledge in urban design, namely, the minimum standard dimensions of roads, parking spaces, landscaping elements and street furniture, and asked moderators for assistance. Consensus building went smoothly, as there was enough space for both functions, the parking and recreation.

Outcomes. The outcomes in both groups are similar. The land plot was divided into two parts, the smaller part was dedicated to the recreational space, and the larger - to the parking lot (Figure 5, (b)). Players agreed, that the perspective landowner, the landlord who owned workshop spaces, was responsible for building the parking lot and the recreational space with minimum facilities, namely, grass, threes and hedges. The residents, in turn, were responsible for building additional facilities, such as a playground, benches, picnic tables and alike. There was no substantial difference between the player group "with community", narrative Nr. 2, and the group "without community", narrative Nr. 4, neither during the game play, nor in the outcome, as the players formed alliances disregarding those indicated in their roles. The "appropriation of the space" seemed to have no substantial influence neither on the game play, nor on the outcomes.

(a) Community proposal, narrative Nr. 2.   (b) Co-designed proposal, narrative Nr. 2.

Figure 5. *The fragment of the visioning boards and the co-designed proposals, game session 1. Source: Viktorija Prilenska*

Evaluation of Participation Game 1.0. The overall evaluation of the game was positive scoring the average of 3.4, with engagement, enjoyment and realism scoring the lowest (3.1), and the interface (3.6) and the roles (3.7) scoring the highest. Players appreciated detailed role descriptions, that allowed "diving into the role" (10 mentions), some players found the roles

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"limiting" (1 mention), other players requested to add the mode of behaviour (e.g. aggressive, 1 mention) and the "facts" or "details" to build argumentation on (10 mentions) to the roles. Players enjoyed the diversity of views suggested by the role cards (2 mentions) and the opportunities to practice argumentation and consensus building skills (9 mentions). Players noted, that in real-life consensus building is more complex than in in the game (8 mentions), where the consensual solution was "obvious", and requested to escalate the conflict (5 mentions), by, for example, introducing financial aspects (2 mentions).

Evaluation of the methodology. Video recordings made with wide-screen action cameras provided a good overview of players, their actions and arguments. Five-minute intervals for the analysis of video recordings was an optimum unit of information.

The groups were observed by two sociology students, who wrote down the outcomes of voting, as well as the arguments and the agreements made during the negotiations. The observations duplicated the analysis of the video recordings, and the latter was more detailed. Therefore, in further game sessions no observations were conducted.

Evaluation forms, which consisted of numerical and textual evaluation were only partially filled in. The information in the textual part was repetitive or the textual parts were left blank. Therefore, for the next game sessions the questionnaires were twice shorter.

Game session 2

Game setup. The second session was conducted with a mixed group of bachelor and master students in architecture and urban design (10) within a framework of the Baltic International Summer School organised by HafenCity University. Students came from the former countries of Socialist Bloc (Poland, Russia, Moldova), which used to have a similar planning background, and were not familiar with the Mukusala neighbourhood. During the second game session the narrative Nr. 3 was tested, which was different from the narratives Nr. 2 and Nr. 4 by the variable "appropriation of space" (Table 1), namely the locals did not arrange any informal recreational space on the land plots, and the employees continue to use it as an informal parking lot.

The narrative was complemented with an additional challenge - to build a residential cluster, with the intention to escalate the conflict and hamper the consensus building by creating the shortage of space to house all functions, the parking, recreation and housing. Consequently, an additional role of the developer, who was responsible for lobbying the residential cluster, was introduced. The roles were complemented with player attitudes towards the project (e.g. negative) and the mode of behaviour (e.g. actively protest).

Game play. The game play was similar to the game play in game session 1. The introduction of an additional challenge, as well as the attitudes and the modes of behaviour, seemed to substantially prolong the negotiations, as the space was limited, and players were determined to lobby their interests. Initially, the role of a planner went to an unexperienced student, who was unable to produce a viable sketch. Thus, the sketching duty was later taken over by a more experienced student with more articulated leadership skills. The unfamiliarity of students with the location seemed to have no significant influence on the game play and the outcomes.

Outcomes. The land plot was divided into three parts, where the smallest part facing the street was allocated to recreation, the largest part in the back - to housing, and the medium part in the middle - to parking (Figure 7, (a)). Players agreed, that both land plots are sold to the

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developer, and that the latter builds a parking lot and the recreational space. Initially, the developer agreed to build the aforementioned facilities in exchange for extra building rights, but in the course of negotiation this agreement was "lost". The landlords, who own the workshops and an apartment house, agreed to rent the necessary parking spaces from the developer.

Evaluation of Participation Game 1.1. The game scored the average of 3.0, with realism (2.4), interface (2.8) and roles (3.0) scoring the lowest and the engagement scoring the highest (3.5). Again, players noted, that in real-life residents do not have as much influence on decision-making as they were assigned in the game (2 mentions), and requested to add financial aspects to the description of the roles, thus, delineating the influence of each stakeholder on the decision making (4 mentions). Additionally, players expressed the preference for a three dimensional "less realistic and more gameful", "cartoonish", interface (4 mentions). One player noted, that although she disagreed with the position outlined in the role card, she had to act accordingly, and it was an interesting experience for her.

Game session 3

Game setup. The third session was conducted with a group of bachelor students in architecture and urban design (7) as an extracurricular activity. Players had Estonian background and were not familiar with the Mukusala neighbourhood. The goal of the game session was to test the new interface, which was partially two and partially three dimensional.

The information and visioning boards reflected the current real-life situation in the area, the information board was three dimensional scaled 1:400 (Figure 6, (a)) and the visioning board (or gaming field) - two dimensional scaled 1:100 (Figure 6, (b)). The visioning board had a grid overlay with a step of 6.25 cm, which was chosen as, firstly, it equals to two and a half 2.5 m wide parking spaces, and, secondly, it fits roughly the dimensions of a budget one family two storey house, which is 6 m wide and 12 m long, with a floor area of around 140 m^2.

The role of a planner was abandoned in favour of 6.25x6.25 cm building cards, which allow all players to participate in the design process (Figure 6, (d)). The cards embodied landscaping elements (grass, sand, paving, asphalt, fences, trees, hedges and gardens), parking spaces, street furniture (benches, tables, lights and playground equipment) and houses. Three dimensional models represented the cars. The cards and the models reflected roughly the realistic dimensions of the embodied elements scaled 1:100. "A carte blanche", a blank card, was introduced with the intention to allow for flexibility, which was previously ensured by sketching. "A carte blanche" could replace any other building card (if not enough) or embody an entirely new object, which is not captured by the cards. The information and visioning boards, as well as building cards, received a "cartoonish" look.

The financial aspect was brought in by allocating a certain amount of resources to each role (Figure 6, (c)). Roles with larges power capacities (e.g. landlords) had more resources and the resources were more valuable than roles with smaller power capacities (e.g. residents).

(a) Information board

(b) Visioning board

(c) Role card with allocated resources

(d) Building cards

Figure 6. *The interface, game session 3. Source: © Viktorija Prilenska.*

Game play. Building cards successfully replaced the role of a planner distributing designing capacities between all players and reducing substantially the number of questions related to the dimensions of roads, parking spaces and other urban design elements. Furthermore, they seemed to make the game play more engaging, involving the majority of players into negotiations or designing activity during 5 min intervals. Game rounds merged, as building cards allowed continuous refinement of the co-designed proposal, which was in the state of flux throughout the game session (Table 3). The allocation of resources did not work as intended, as the players mixed up the resources and played around with the common pool of resources.

Outcomes. The outcomes of the current session were almost identical to the game session 2 (Figure 7, (b)). "The carte blanche" was used solely as a replacement for existing building cards, if they were not enough, not for the new ideas.

Evaluation of Participation Game 2.0. The game scored the average of 3.5, with the role descriptions and the realism scoring the lowest (3.3) and the engagement scoring the highest

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(4.0). Players enjoyed the "fun" (2 mentions) and the insights into urban design (3 mentions) delivered by the game. At the same time players expressed the preference for the entirely three dimensional interface (3 mentions), clearer financial capacities of the stakeholders (1 mention) and requested the feedback from a professional planner about their co-designed proposal (idea sparkled during the debriefing).

Table 3. The game-play, session 3, 4 and 5.

Activity	Time (min)
Presentation	10
Round 0 - distribution of role cards - taking seats and reading the cards - questions and answers	10
Round 1 - naming roles and expressing opinions about existing and planned situation - development of an alternative vision - voting and expressing opinions about the final vision	60
Filling-in Game evaluation forms and a Coffee break	10
Debriefing	20
Total timing	110

Game session 4

Game setup. The fourth session was conducted with two groups of high school pupils (23) within a framework of the UNESCO project "Jauno mantotāju skola" ("Young heirs school"). Pupils had Latvian background, and most of them were not familiar with the location. The goal of the game session was to test a new three dimensional interface, as well as the suitability of the game for pupils.

The information board and the visioning board were left without changes, whereas building cards were replaced by three-dimensional building units, which roughly reflected the real dimensions of the objects (Figure 2). The idea of allocating resources to the roles was abandoned. The role cards were complemented with financial aspects, such as prices and areas of land plots, prices of street furniture, parking lots and housing, as well as financial capacities of each player.

Debriefing and game evaluation by the players were replaced by the discussion with professional planners, the employees of Riga planning department, who commented on the game and on co-designed proposals.

Game play. The game play was similar to the previous session, where the game rounds merged (Table 3). Players did not pay attention to the roles, financial issues and agreements, and focused mainly on the design. Part of students were highly engaged, whereas other, less vociferous pupils, were left out from the discussion. The game was played simultaneously on two tables with two groups of pupils and two moderators. The consensus building in the first group went smoothly, while in the second the players were struggling for leadership.

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Outcomes. The first group proposed to divide the land plots into two parts, the smallest one facing the street was allocated to parking, and the largest one in the back to housing with an integrated playground. The second group proposed to divide the land plots into three parts, the medium part facing the street was allocated to parking, the largest part in the back - to housing and the smallest part in the middle - to a playground (Figure 7, (c)). There were agreements made regarding the building responsibilities. The parking lot was supposed to serve the whole neighbourhood, including the employees of the workshops and the residents of the apartment house.

The planners studied the co-designed proposals and responded, that according to building regulations in Riga parking lots in the front yard are prohibited, they should be located either in the back or side yards. According to the players front yard location was more convenient for the public parking lot, as it is more accessible to the users.

Evaluation of Participation Game 2.1. The planners told that they would not be interested in playing the game, as "games are for the youth". They, also, requested to include alternative transportation opportunities into the game, such as public transportation and bicycle.

Game session 5

Game setup. The fifth session was conducted with a group of bachelor students in regional development and urban economy (8) as a part of a course related to urban studies. Players had Latvian background and were familiar with the Mukusala neighbourhood. The goal of the game session was to find out how the introduction of new rules would influence the game play and the outcomes - a co-designed proposal.

The information and visioning boards were left without changes. Building units were complemented by a bus stop and cycling path units. The role card of a city council representative was complemented by an additional rule, namely, the introduction of the public transportation line in the area gives 20 percent reduction in parking spaces. There were no additional rules concerning the bicycle path.

Game play. The game play was, again, similar to the one in game session Nr. 3 (Table 3). Players were highly engaged into negotiations and designing, some players stood up to have the better overview of the visioning board and move around the building units. Players acted well within the boundaries of their roles, paying attention to their own interests and interests of other players, as well as financial issues and agreements about the building responsibilities. Players did not raise any issues transcending the boundaries of the game, such as the relevance of a parking lot, recreational space, housing or alternative means of transportation for the area. They treated game challenges as a puzzle, trying to fit all functions into the limited space and to take into account the interests of all players to the maximum extent.

Outcomes. The land plots were divided into two parts, with the smaller part facing the street allocated to the parking lot, and with the larger part in the back allocated to the housing area integrated with an integrated playground (Figure 7, (d)). The houses were stocked on top of each other to save the space. The bus stop was built to reduce the amount of necessary parking spaces by %20. The duties to build the parking lot were shared between the landlords, who owned workshop spaces and who owned an apartment building. The duty to build a recreational space was delegated fully to the developer. Landlords and residents agreed, that on weekdays during the office hours the parking lot is used by the employees, while on weekends and on weekdays outside office hours the parking lot is used by the residents.

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(a) Game session 2.

(b) Game session 3.

(c) Game session 4.

(d) Game session 5.

Figure 7. Co-designed visions. Source: © Viktorija Prilenska.

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Evaluation of Participation Game 2.2. The game scored the average of 3.3, with engagement and realism scoring the lowest (3.1) and with the interface and role descriptions scoring the highest (3.5). Players enjoyed the opportunities for discussion (4 mentions) and consensus building (3 mentions), as well as the divergence of views between the players (3 mentions). Players noted, that in real life residents are often not involved in the decision making (2 mentions). The players requested to have a feedback from a professional planner about their spatial proposal (2 mentions) and provide the information about the best practices of urban design.

Discussion and Conclusions

The players

Eighteen participants out of 67, who took part in game sessions, studied architecture or urban design, nine students - sociology, eight students - urban studies, twenty-three participants were high school pupils, and three participants were university professors. Fifty participants were from Latvia, seven from Estonia, and ten were from other former Socialist Bloc countries.

Most players were sceptical towards the practice of civic engagement in planning and the capacity of resident communities to substantially influence planning decisions. They were convinced that urban development is developer driven, and that local government is unable to lobby public interests. Furthermore, most players admitted, they have never participated in public hearings, and Participation Game was their first encounter with the role-play consensus building exercise concerning the built environment.

During the game play, most players, including those with the role of a city council representative, made multiple jokes about the local government. The local government was represented as an institution, which is not ready to spend any resources for small scale public infrastructure (such as neighbourhood scale public spaces), which does not have its own position regarding the future development vector of the city, which cares mostly about the outcomes of elections, and tries to avoid direct confrontation with powerful interest groups (such as developers or land owners).

Player scepticism towards civic engagement may be explained by their cultural background, as all of them come from the former Soviet Bloc countries. In these countries urban planning practices are still in transition, resident communities entered the planning domain in early 2010s, and reached the capacity to influence the decision-making concerning the built environment only by the end of the current decade (Prilenska et al., 2019). Game sessions with players, who come from the countries with a long history of civic engagement, might have yielded different results. The degree of familiarity with game context, Mukusala neighbourhood, seemed to have no significant influence on the game play and the outcomes.

Sociologists and planners better adopted the roles with their characteristic behaviour, than architects. They, also, paid more attention to the agreements about financial and building responsibilities, than architects. Architects, in turn, focused on design, rather than on roles and agreements. All players revealed their weak knowledge about basic urban design principles, such as standard dimensions of roads, turning and parking places, as well as about the optimum arrangement of urban design elements. Therefore, building cards and units were helpful as learning and experimentation tools about urban design principles.

The role-play nature of the game turned out to be not suitable for high school pupils, who

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ignored the roles and focused solely on design. Furthermore, the size of the group of 11-12 people did not work for the pupils, as less vociferous pupils were ignored and more vociferous pupils were struggling for leadership. It seems, that for pupils the optimum size of the group should be twice smaller, and that the game should focus on developing teamwork skills in first place, rather than on urban and participatory issues.

The format of the game

In the iterative design process the interface of the game transformed from a two dimensional to three dimensional, and the co-designed proposal, developed by players in the gaming process, transformed from a sketch to a three dimensional model assembled from pre-designed units.

Compared to a two dimensional interface, three dimensional "cartoonish" interface was more appealing to students and increased their level of engagement into the gaming process. On the one hand, building cards and units allowed multiple players to engage into modelling activity simultaneously. Besides, in contrast to sketching, modelling from pre-designed units did not require any drawing skills or knowledge of basic urban design principles. On the other hand, building cards and units limited player choices to the set of urban design elements, offered by game author. The "carte blanche", which was added to the set of pre-designed units with the intention to increase its flexibility, was used as a replacement for the existing elements, rather than as an embodiment of new elements or ideas.

During the game play students acted within the rules of the game, and did not make any attempts to transcend them, by changing and/or adding the rules, or by raising broader issues about planning and/or participation. In-game challenges were treated like a puzzle which had to be resolved within the framework of the game. Limitations of the game became especially evident during the final session, where additional building units and rules concerning the bus stop and the cycling path were introduced. The bus stop, which was useful in solving "the puzzle" with parking places, was built, whereas the cycling path, which did not give any in-game benefits, was neglected. These findings, along with the fact, that co-designed visions are surprisingly similar, suggest, that the rules of the game might steer players towards certain outcomes, and even allow to orchestrate the results.

In-game collaboration

The role cards indicated, that local residents and entrepreneurs are a part of a local community, assuming, that players will make in-game collaborations accordingly. However, players ignored the indications in the role cards and preferred to collaborate with their buddies. The findings imply, that within a game it is difficult to force collaborations, which do not exist in real life. These findings are specific for the particular game and cannot be generalised. There is evidence, that some pervasive games foster collaboration, cf Big Urban Game (Coppock & Ferri, 2013; Cameron, 2004) and community cohesion, cf ZWERM (Laureyssens et al.,2014), whereas some board games encourage building in-game alliances, cf Energy Safary (Gugerell & Zuidema, 2017) and City Makers (Constantinescu et al., 2017).

The iterative design

The design of the game changed from session to session based on player feedback, which was collected by means of evaluation forms and debriefing, as well as audio and video recordings of game sessions.

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The analysis of evaluation forms showed that students are unwilling to fill in lengthy questionnaires, and, therefore, starting with game session 2 the evaluation form was reduced to one A4 page. In the evaluation forms students were slightly more critical towards the game, then during the debriefings, as the evaluation forms were anonymous.

The analysis of audio and video recordings showed the levels of engagement, measured by the number of players involved in the gaming process during 5 min intervals, player activities, unfolding discourses, as well as the dynamic of player mood during the session. In combination with direct player feedback from evaluation forms and debriefings, the analysis allowed to identify the strengths and the weaknesses of the game, as well as preferred directions for further improvement.

The game evolutioned from the basic game, which offered the flexibility in the interpretation of the roles and the freedom of sketching into the game with definite role descriptions and a pre-designed set of building units. The game became more rigid and limiting, and, at the same time, clearer and more convenient for the players.

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Appendix 1: Example of a Role Card (session 1, narrative Nr. 4)

Entrepreneur. Landlord (E1)

Your situation:

- You own a large workshop complex at Laivu street and You lease it to small enterprises.
- The employees of small enterprises arrive to work mainly by car; thus, you need a parking lot.

Your challenges:

- Some enterprises moved out to the premises with a parking lot, which has surveillance and a guard.
- There is no space for a parking lot in the courtyard of the workshop complex, thus, you would like to buy a vacant land plot nearby and arrange a parking lot there.

The photograph of the workshops.

Appendix 2: Example of a Role Card (session 5)
The full set of role cards is provided in Supplementary materials.

Entrepreneur. Landlord (E1)

Your situation:

- You live outside the neighbourhood.
- You own a large workshop complex at Laivu street and You lease it to small enterprises.
- The employees of small enterprises arrive to work mainly by car; thus, you need a parking lot.
- There is no space for a parking lot in the courtyard of the workshop complex, thus, you would like to buy a vacant land plot nearby and arrange a parking lot there.

Your challenges:

- You need 30 parking spaces. The price of one surface parking space is 2 thsd. euros. The price of one underground parking space is 20 thsd. euros.
- Nearby there are two vacant land plots. Land plot X belongs to the city council, its area is 721 m^2 and price - 50 thsd. euros. On the land plot X there is space for roughly 30 parking spaces. Land plot Y belongs to the developer, its area is 1588 m^2 and price - 100 thsd. euros. On the land plot Y there is space for roughly 60 parking spaces.
- You have 100 thsd. euros.

Your attitude/behaviour:

- You need the parking lot and You are determined to lobby Your interests.

The photograph of the workshops.

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Appendix 3: The Fragment of Video Recording Analysis (session 5)

	D1	E2	G	
R1				
R2				
	E1	R3		R4

Locations of roles at the table. Camera moves around. E1 - local entrepreneur-owner (offices), E2 - local entrepreneur-owner (hotel), R1- landlord (blue-green), R2 - resident-tenant (young), R3 - resident-owner (retired), R4 - resident-owner (mortgage), D1 - developer, G - local government, O - observer, x - camera.

Game session 5, Legend 1					
…					
00:10	00:52	Round 2 - 42 min			
Start	End	Discussants	Activity	Group dynamics	Notes
00:10	00:15	all 8: landlord housing, resident, entrepreneur, landlord workshops, government, resident, developer, resident	Build, clarify the number of required parking lots, try to make alliances based on common interests and financial capacities (E1-D), propose public transport, discuss possible solutions, clarify positions	Focus, smile, laugh occasionally, rational approach	Speak between each other in small groups, rather active, ask question about urban design and game rules, stick to the rules
…					
00:20	00:25	8: landlord housing, government, resident, developer, landlord workshops, resident, entrepreneur	Build, search for common interests, clarify positions, discuss possible solutions, argument - "you voted against parking lot, and build parking lot", answer "we voted against use of parking lot solely for enterprises", compromise	Focused, rational approach, frustration, vociferous occasionally	Speak between each other in small groups, ask questions about urban design, stand up to build
…					

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Appendix 4: Evaluation Form (session 5)

Game evaluation

Please, circle the corresponding answer (1- unsatisfactory, 2 - satisfactory, 3 - good, 4 -- very good; yes or no) or write!

How engaging was the game?

1	2	3	4

Evaluate the presentation!

1	2	3	4

Evaluate game interface!

1	2	3	4

Evaluate role description!

1	2	3	4

How realistic is the game?

1	2	3	4

Explain your opinion!

………
……………………………………………………………………………………

Aspects of the game, which you enjoyed?

……………………………………………………………………………………………….………
………
………………………………………………………………………………………

Aspects of the game, which need improvement?

....
....
....

Are you willing to participate in the similar game once again? Yes / No

Any other comments?

....AESOP / YOUNG........................
....