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URBAN LIVING LABS FOR PUBLIC SPACE

A NEW GENERATION OF PLANNING?

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Preface

Participation, living labs, urban commons, … It is clear the field is undergoing a drastic change. Also in politics, structures seem to be in need of a drastic change and the social media seem to offer a forum for everyone to participate in discussions on our future.

While participatory planning is widely hailed as a prerequisite for well-managed urban development and sustainability, this ideal can be difficult to implement in practice, due to the complexity of interactions between stakeholders and the difficulty of public users to realise a tangible ‘hands-on’ contribution. Incubators of Public Spaces aims to expand the opportunities for civic engagement in urban design through the creation of a user friendly online platform as an aid to local option generation and selection.

The Incubators Conference explored the context of the wider potential for urban living labs to deliver better, more tangible public participation in the urban environment. How can living labs introduce and induce new developments? What processes are needed to make living labs successful? Can new participatory tools trigger towards a new turn in urbanism? What new visions are needed and how can crowdsourcing engage actors and contribute to spaces? Can new technological means empower civic self-organisation and how does this impact the authority of the public power in planning? These were the questions which were given to the participants in the Incubators Conference organised in Brussels.

The result is a wide range of experiences, approaches and positions. All valuable and relevant. They form a plenitude of inspiration for the future. It will be nice to hear in the future from the reader about their new endeavours.

I want to thank the scientific committee and the reviewers; the participants and the session chairs; the staff which did a splendid job for the logistics; the European Commission and Innoviris for providing support for the Incubators Project.

Prof. dr. Johan Verbeke
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PAPERS
Communal Hack

Big Data and Community in Architecture

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Abstract. Data collection offers a possibility to use citizens' behavioural patterns to understand common and individual needs. The digital footprint is a fundamental element to understanding the population’s demands on an analytical basis. In order to react more precisely to contemporary challenges we face, such as the refugee crisis, this potential knowledge base needs to be integrated into architectural planning strategies. Citizens are regarded as the primary source of information in a system that analyses data that their behaviour produces on a real-time basis. Besides the positive aspects of understanding — or even foreseeing — trends that could impact architectural requirements, data security has to be given profound consideration when assessing data due to potentially problematic breeches of privacy.

Society Lab serves as a case study project for data analysis in architecture. It is a platform that connects and merges the current request — offer situation of data and knowledge: Asylum seekers that are searching for housing are enabled to access a local information network by an application as a principal digital instrument. This app, which is focused on real-time output and easy handling, allows the asylum seekers to inform, exchange, look for and find contact, accommodation or work even before arriving at their destination.

Keywords. Architecture; Smart Cities; Big Data; Community Based Design; Adaptive Place Design.

Contextual framework

Throughout humankind’s history, data collection has been a popular way to document and control information. The Romans held a censuses to acquire and monitor information about its population systematically. However, prior to the digital age, collecting and interpreting information was an extremely expensive and slow process. It was not continuous in time, the frequent rise of new variables meant that the course of collecting data had to be started over again.

The beginning of the digital age brought about unprecedented possibilities for gathering, analysing and storing an exponentially growing and unstructured massive volume of data (Big Data) on a constant and real-time basis. By 2025 approximately 80 billion devices will be connected to the internet, according to IDC. To put that into context, at the beginning of 2016 there were nearly 11 billion devices connected. The expanding number of smart devices with GPS and internet connection, as well as spatial aerial sensors are instances of Big Data generators. IDC provides further predictions on the growth of digital data that results from the growing number of sensors and devices aforementioned. Until 2020 the total amount of digital data created worldwide is supposed to increase explosively up to 44 zettabytes. (Kanellos, 2016)

Evidently, Big Data is a developing source for evidence-based decision making, since it enables the evaluation of past and present circumstances. Nearly all aspects of life have been affected by computer science influence and Big Data collection. Google engines are able to forecast flu trends based on what its users are searching on the internet.
In Singapore, for example, the local governments use real-time traffic situations to regulate road toll prices, and therefore, prompt its users to avoid driving in the most hectic periods, by increasing the fees. Furthermore, examples like Waze — a GPS-based geographical navigation program — illustrate how the real-time transmission of data, optimises the contributions of its millions of users and the company towards a common goal: “to outsmart traffic” (www.waze.com: Feb 2017). By processing significant amounts of data from user location related to time, Waze can map and predict traffic and the most convenient routes on a global scale in real-time. In addition, Waze users are able to share road reports on accidents and any other relevant information, therefore optimising the resources available and creating a real-time digital database in the form of community-edited maps.

Another level of given content from the user, generated through social media for example, is the socio-anthropological layer of information including emotional impact or feelings (see like, love, dislike on facebook) related to a particular place, shop, idea, etc. In this sense, it is important to consider the term ‘perception of physical spaces’. The term is referring to the perception of traditional living spaces and potentially inscribed meanings for the user. Such concepts can be discovered and understood through gathered data and information regarding the perception of private/public space and the individual versus the community.

Social media serves here as an instrument strengthening one of its very own principles: social interaction and exchange. It is of everyone's best interest that the means available are used in a collaborative fashion, consenting virtually everybody to generate and experience information and content. As Walter Isaacson suggests, the emergence of the digital age was promoted and sustained by governments in partnership with industry, military, and academic establishments. But simultaneously, the origin of the digital age sprung from within groups that would typically be sceptical of the consolidated power, as single operating hackers and community oriented individuals (2014).

That points out that the digital sphere always was about the communal experience, the sharing of knowledge and exchange beyond different backgrounds. Through the transfer into the physical world this unrestricted integrative exchange for and of everyone can improve our everyday lives if it is handled carefully. Considering security as well as privacy issues is an integral part of the topic and will be discussed in a separate chapter hereafter.

**Big Data and Security**

The dualistic perception of the digitalization and the so-called *Industry 4.0* reaches from the promise of salvation to demonisation of anything digital. Advocates of the digital age argue that through newly evolving technologies our lives will become easier, society is going to be more democratic, and participation of the individual is easier than it has ever been before. In contrast, the critics of the now emerging *4th digital-industrial revolution* see jobs disappearing due to automation, the consolidation of existing power structures and the danger of the overall transparent citizen. (Littger, 2017)

Both perspectives need to be taken seriously, as the ensuing technological development is dependent on the society as well as on the societal framework that underpins it. It is vital, to be aware of the the wider context of digitalization to understand the polarized views that surround the topic and the ways in which the socioeconomic and political landscape inform this opinions.

Arising questions, amongst many others, that need to be tackled and answered — not just in any project using Big Data, but in general to secure our future social cohabitation — are as follows: How can we secure the open and transparent handling of personal data? Who can access and analyse the data-sets of individuals? How can awareness of data, its traces and meanings, be established in the public mind? Just with
an existing base of knowledge about how Data Mining\(^1\) works, how Algorithms influence one’s perception (buzzword: Digital Bubble), and how much and what kind of data of an individual is gathered, one can reach ‘digital maturity’. On one side this maturity is in the hands of the users — thus the data provider — and on the other, data collectors, data miners and decision makers need to make sure sensitive personal data is not compromised. Each user has its own privacy concerns, hence the privacy-preserving approaches adopted by one user are generally different from those adopted by others (Xu, 2014).

Recent events — mainly political — around the world show, that fears surrounding individual security are not limited to digital advancements: a globally represented legislative body is necessary to ensure that society has a common base to share and communicate in the digital world — as well as in the physical world. It is clear that there is a universal need for respecting the right to privacy and free speech regardless of the place and form of expression.

The role that smart devices play in this discussion is exemplarily shown with a recent ongoing political debate in Germany. The Federal Office for Migration and Refugees (Bamf) in cooperation with The Federal Ministry of the Interior (BMI) is about to hand in a legislative proposal that is thought to enhance the enforcement of expulsion. According to estimations of the BMI 50%—60% of asylum seekers would have been considered for a data read-out of their smartphones in 2016 to facilitate identification. (Kampf and Leyendecker, 2017) The proposal is debated controversially and shows the complexity of the topic as well as the difficulties to localize borders.

If we see the role of the architect as part of the decision makers, the privacy-preserving objective is to make a correct judgement about the credibility of the data mining results he or she’s got. To achieve this goal, one can utilize provenance techniques to trace back the history of the received information, or build classifier to discriminate true information from false information (XU, 2014).

Big Data and its significance in architecture

With few exceptions — the architectural field seems not to be adhering to this very trend of integrating computer science know-how in the form of Big Data collection in its methods and processes. For the most part, Big Data collection has been instrumental in helping to solve problems that although might be relevant to the architectural discourse are not architectonic per se, such as the traffic related issues mentioned above, infrastructure networks, mobility traces, climate and pollution, etc. Computer science in the form of Big Data collection and Machine Learning offer an extensive ground for experimentation and improvement to the architectural field. Nonetheless, in today’s architectural practices the classical and traditional approaches are prevailing. Most architects are missing the chance to participate in the current discourse actively and thereby the opportunity to influence the direction the field goes.

The present paper intends to address the issues as mentioned above by the integration of technological know-how in combination with new ways of thinking spatial design and architecture. The use of data is particularly valuable as it provides a source of objective analytical information to support the design of living spaces. The term ‘living spaces’ refers to the physical environment and infrastructure to be introduced as an output of the data collection inputs — presenting architecture based on performance and needs rather than form.

\(^1\)The actual data mining task is the automatic or semi-automatic analysis of large quantities of data to extract previously unknown, interesting patterns such as groups of data records (cluster analysis), unusual records (anomaly detection), and dependencies (association rule mining, sequential pattern mining). This usually involves using database techniques such as spatial indices. These patterns can then be seen as a kind of summary of the input data, and may be used in further analysis or, for example, in machine learning and predictive analytics.
The vast spread of ‘intelligent assets’ offers plenty of potential within the Architectural field, particularly when it comes to the citizen’s ability to intervene in the planning and decision-making processes which need to be explored. Additionally, the Internet of Things (IoT) culture and its ability to decentralise information enables citizens to administer their impact better. As a result, one can undoubtedly argue that the IoT culture — that gives one the chance to express oneself, regardless social status or background — is an agent for equality among citizens.

Mobile phone platforms are becoming key IoT enablers and hold great potential for unlocking circular economy value in this space [...] it is critical that an increasing number of people – users and developers of IoT – are involved in making big data and information public. In other words, big data should become open data to have a big impact on our lifestyle and cities (Ratti, 2016).

Thus, to better understand the challenges of collaborative, participatory design approaches it is ultimately ineluctable to liberate the ‘mythology of the architect visionary’. This cultural fascination of the authorial artist ignited in the XVI century by Vasari (Ratti, 2015) that has prevailed in the imagination of professional architects, architectural students and the public at large is no-longer-appropriate. Per contra, such a paradigm has proven to fall short in responding to the citizen’s needs, particularly at the community level.

The efficiency and beauty of vernacular architecture, for instance, is an example of a successful architectural manifestation that confirms the idea that, the success of architectural outcomes does not necessarily depend on the existence of a single idealised mind. Examples, like those referred to in Bernard Rudofsky’s book, ‘Architecture without Architects’, in 1965, demonstrate that architecture made by not formally-schooled architects can generate fruitful results. The author elaborates in his book on the success of vernacular architecture, called ‘non-pedigreed architecture’ (1965), that shows architecture in the course of time as an often collaborative resilient design effort. Integrating the communal and integrative aspect of architecture afresh — fueled through the use of new digital tools — architects are enabled to gain a complete new set of contextual parameters for their design process.

In summary, incorporating computer science in the form of Big Data collection, Machine Learning, as well as IoT, changes the architectural discourse fundamentally and brings changes in the way citizens relate to architecture as a discipline and as an outcome as soon as they are participating in design processes themselves. This demands a revision of the role of the architect, mainly concerning authorship. The architect appears more like an ‘orchestrator’ (Ratti, 2015) of the different parts involved, rather than the single mastermind behind a given project as he or she is perceived today.

Society Lab. Outsmarting housing solutions — together

In October 2015, upon the ‘European migrant crisis’ the Museum of Finnish Architecture (MFA), in collaboration with the Finnish Association of Architects (SAFA), launched the international architectural competition From Border to Home seeking housing solutions for the 35,000 asylum seekers expected to enter the country. Participants were challenged to present tangible solutions with a focus on the promotion of a positive social impact. In addition, the brief asked for long-term living arrangements. The jury consisted of architects, experts from the Ministry of the Interior, the Finnish Red Cross and the Finnish Refugee Council. The Society Lab Project by Omri Revesz, Cecilia Danieli and Mariana Riobom won the 1st prize, along with two other teams (http://www.mfa.fi/rajaltakotiin_eng: Feb 2017).

The competition’s topic and the winning projects created the basis of the Finnish Pavilion theme at the 15th Venice Architecture Biennale. During, the 15th Venice Architecture Biennale, curated by Alejandro Aravena, the pavilion served as a platform to advance the conversation on how to house asylum seekers and enable them to integrate into society (http://frombordertohome.fi: Feb 2017).
Concept

According to Helsinki Urban Facts and Hypo statistics, there are, currently, 300,000 vacant houses in Finland, which represents 8.2% of all built houses (http://www.hel.fi/www/tieke/en: Jan 2016). 28,000 of these properties are in the capital, Helsinki. Society Lab is a digital platform designed to connect and merge request and offer: asylum seekers with vacant houses. Considering the number of asylum seekers to arrive in Finland (35,000) and the number of vacant houses in Finland (300,000), the aim is to create a system that connects the two, optimizing and managing existing resources and thus avoiding new constructions, ‘outsmarting’ newly built housing solutions.

Figure 1
Example of a community-edited map with different layers of information.

As there will be no need for new constructions, consequent urban sprawl can be prevented. The aim is to make better use of existing resources and to densify given infrastructures through processing of data in real time.

The funding that the state and eventual authorities — such as the European community — have allocated for constructions of new homes can be used to sponsor the first twelve months of rent in the Finnish vacant dwellings instead.

Besides the intelligent use of resources the focus lies on the social aspect: on one hand, refugees won’t be housed in new quarters segregated from the rest of the society and thereby stigmatized, on the other hand, local citizens have the possibility to interact and get to know the asylum seekers step by step. In this way, both sides benefit through newly established social contacts and steadily built up connections.
The *Society Lab* system is thought to evolve according to a Micro and Macro time frame. During the Micro time frame — the first twelve months — locals enable the future independence of the asylum seeker by teaching them the language and engaging them in working activities and educational school programs. In the Macro time period, those who receive asylum will be ready to become an active and fully integrated part of the Finnish society. They will be able to pay for their accommodation, to work, communicate, and to develop relations with members of the community.

How can we achieve the goals aforementioned in the most efficient and fastest way? How can we reach the highest number of people integrated into one system? We can do so through utilizing social media; by creating an application that allows its users to collect and share information on a real-time basis. The majority of people use smartphones or other comparable devices to communicate. Asylum seekers are no exception to that. In fact, various mobile applications help asylum seekers on their travelling route to reach their final destination and are essential to become acquainted with the new surroundings.
Society Lab adds on here: Finnish people and asylum seekers create a real-time digital database in the form of community-edited maps that contain different parameters of information. The tool allows asylum seekers to be informed, to exchange knowledge, to search for and eventually to find accommodation even before arriving in Finland. The system is simple and intelligible. Local citizens and asylum seekers create a user profile to become part of the Society Lab community. Hence, users can upload data into the system, on a real-time basis: local citizens upload information about vacant houses available for rent; asylum seekers can express their needs, regarding housing and announce their skills to the community. All the data is immediately integrated into a city map interface, where intuitively one can understand what is available in the city.

The project is based on the assumption that integration in its complete form is the result of a shared effort. Therefore, the Society Lab database will include a broad range of further subcategories of seeking & offering: job, education, cultural exchange, etc. This dynamism will initiate the first encounter between local citizens and newcomers, which can be developed further into relationships in the physical space, creating cities that are dynamic, rich and plural.

For non-digital users, specific gathering points will be set up in public space to enhance sharing and implementing of the database with all possible suppliers and seekers. These spaces will function as info-point, recreational and meeting places. Further, they add the aspect of a marketplace like an encounter in real life.
Potential of the project | longterm view

The potential of the project lies in the power of the community created in the digital sphere and its tremendous impact on the physical as well as social domain. In the same manner that the content generated with Waze helps to shape the traffic of cities, the output generated by the Society Lab database could help to diagnose, improve as well as forecast the physical sphere of housing. Firstly, the software application offers the opportunity to rent a house entirely through the platform. Successively, the growing database may enable new interactions and dynamics between people — both in the digital as well as physical realm — and, ultimately it will supply a clear overview of the communities’ needs and wants.

In the long term Adaptive Place Design can take place: through detecting the public sentiment of a place in an automatic and timely way, designers, architects, the municipality etc. get a database that provides them with detailed information about a certain area that can be adjusted precisely to current demands and developments. (You, 2016) Communities and local knowledge are an indispensable component to understanding the generated data, as they contribute to the identification of priorities within a certain country, city or block at a certain moment. The created data reaches far beyond empirical findings we are used to working with nowadays. The socio-anthropological aspect of the user group in combination with infrastructural hard facts opens up a new field of (co-)design and direct participation for users as well as for creators.

Society Lab | The event

During the 15th Biennale di Architettura di Venezia (2016) the Society Lab team held an interactive data collection installation in partnership with Arduino Casa Jasmina GIT – COMMIT². One objective was to establish a dialogue on ideas and critical issues regarding digital platforms and its contribution to the formation of new kinds of groups and sense of belonging. The intention of the event was to deepen knowledge regarding

² GIT-COMMIT a data collector has been developed with Genuino MKR1000 by Arduino, a powerful board that combines Genuino Zero features and Wi-Fi shield to create IoT projects.
real-life communities, digital communities, and trust, concentrating on the gaps that would make a group of individuals to become a community.

Visitors and participants of the event were invited to reflect and answer up to six questions, whilst reviewing a responsive real-time output in the form of an uninterrupted flow chart, giving a full overview of the collected data and a personal printed response. The survey was used to investigate topics from trust (e.g. What makes you trust somebody to stay at your home through airbnb?), to self-reflexive issues (e.g. How often do you go out of your comfort zone to meet new people?) as well as perceptive aspects of cohabitation with someone new (e.g. Why would someone come to live in your home country?). The survey results show how the app could engage this certain group of people more in the process of connecting with each others.

The event served as further as a case study project for the so-called gathering points mentioned in the concept explanation beforehand. Through the public meetings, people can be addressed that might not use the app. So various opinions — not just positive ones — can be considered and integrated into the design. The aspect of a marketplace like encounter strengthens the plurality of insights that is fundamental for the advancement of the Society Lab project.

Generally speaking, with the knowledge gathered on one hand the application itself can be improved (digital improvement e.g. establish a trustworthy way of communicating through the app) on the other hand the output can be used in an architectural planning context (physical improvement e.g. meeting points can be designed respecting socio-cultural backgrounds and needs).

Conclusion

The authors believe, that the role of the architect within the digital context of data analysis and implementation will change the architectural field and it’s (self)perception elementarily. Data literacy — the ability to read, create and communicate data — might get the need-to-have ability for architects. If the field is not able to adapt and react to the newly emerging ways of integration and empowerment of the user, it may become obsolete. Currently, there are service providers across the board understand that they must place the user at the forefront of their practice. The public ultimately expect that in time their living spaces will also be more adaptable to changing living conditions informed by political and socio-economic shifts. Big Data tools offer architects the chance to forecast such expectations, so these values must be included in the methodologies.

The Case study gives an impression on how evidence-based design or rather, the prerequisite — the gathering of data and the interpretation of it — could be implemented. Evidently, the architect conducts the project as the head of organisation before the main design process begins. The fact that the end user participates in the design process does not mean that he/she designs the outcome. Instead, the user serves as an expert of the everyday — the architect becomes the mediator of the gathered needs and expectations and further, forms them into new spatial surroundings. The permanent exchange of knowledge from both side’s fuels the discovery of the optimal result. The benefit from this is that compared to traditional workflows, the output of the ‘design’ is precisely oriented towards the needs of the end user and can be consequently adjusted. Even cultural specifications can be better understood (i.e. floor plan layouts customised to specific cultural needs) as the information from and for the particular individual is available. The before mentioned is only feasible if the building process itself becomes more flexible as well (i.e. the adaption/production of space through rapid prototyping and automation).

In this sense, the authors believe that a question remains unanswered: What is the role of the architect, regarding the new wave of industrialisation and the exponentially growing speed of the digital world? Leaving the question unanswered is a way to let the future architectural generation explore their position in the field. Amid data collectors,
data miners and decision makers, the architect can be placed as an intermediary that
knows how to accommodate people’s needs based on an understanding of architectural
potential in data.

The digitalisation will continue at an ever increasing speed. One cannot stop it; one
can just design it. The digital development of our world might not make our lives
simpler, but there is a potential that it may improve the overall quality of our lives.
Success or failure is not a technological question but a socio-political one. It depends
on us.

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conceptual backdrop of the paper and shows its topicality as well as the potential of
hands-on applicability. Hereby we wanna thank the authors that they provided us with
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Is Boundary Space a Mediator?

Understanding Participation in Performative Actions

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Abstract. Participatory planning can be understood as a multi-lateral communication process not free from problems. Difficulties accompany the development of and paradigm changes in planning theories. This article focuses on roles of urban spaces in participatory planning processes, where spaces appear often in representations. As soon as a project is completed, the role of urban space as a mediator in public affairs is reduced. In urban Beijing, people participate in space production differently. They spontaneously transform boundary spaces of communities through performative actions, such as bodily movements, occupation with objects, and informal constructions, which illustrate their opinions on “how spaces should be used”. Their actions demonstrate possibilities of participatory space construction mediated by spaces themselves. This article examines the theories of spaces as mediators and performative actions as a form of participation, and analyzes performative actions in the boundary spaces of five communities in urban Beijing as examples. The concept of participation should be extended beyond the planning to include the use of urban space, and planning strategies allowing such processes should be developed.

Keywords. Participation; performative; boundary space; mediator; urban Beijing.

Introduction

"The idea of citizen participation is a little like eating spinach: no one is against it in principle, because it's good for you" (Arnstein, 1969, p. 216).

Participation aims at resisting the domination by those in power in decision-making. The core values of public participation as stated by the International Association for Public Participation (IAP2) is summarized as "the public should have a say in decisions about actions that could affect their lives and that their contribution will influence the decision" (Sanoff, 2006, p. 58). Hence participatory planning has been promoted in the past half century as a democratic procedure, as being "for the good of all those affected" (Fisher, 2001; P15). Nowadays public involvement has become a demand in all kinds of city planning projects (Beebeejaun, 2016).

Despite the overwhelmingly positive view in the academic world that participation will bring “good” to the people, practices with public involvement face difficulties, such as higher investment, administrative limitations, unequal levels of involvement, biased information input, and there are multiple and changing understandings of what is good. These sometimes lead to rigid application of participatory processes (Beebeejaun, 2016). Sherry Arnstein already warned “there is a critical difference between going through the empty ritual of participation and having the real power needed to affect the outcome of the process” (Arnstein, 1969, p. 216), and meanwhile “most federal initiatives to improve communities were on the lowest where participation was merely a public relations vehicle used by power holders” (Smith, 2016, p. 31). To emphasize the potential for unjustified exercises of power and the limited self-reflexivity in participatory development, some scholars even relates participation to “tyranny” (Cooke & Kothari, 2001), and looking for alternative approaches of participation (Forester, 1999; Healey, 1997).

1 Here the phase “a public relations vehicle used by power holders” is from Arnstein (1969). Smith (2016) uses it to address the remaining problem in public housing in the US.
In the meantime, attention has been devoted to the communication and coordination in participatory activities (Selle, 2016). Mediation has become a special skill, and has been analyzed in a multitude of publications on participation (Forester, 1999; Fisher, 2001). New techniques such as smartphone based data collection and teleconferencing etc. have been involved as mediation tools. Nevertheless, whatever tools are applied to expand possibilities of involvement, problems mentioned above still appear (Haklay, 2016), as long as the communication aims to fulfill the changing and unpredictable social requirement with concrete spaces or space planning.

In participatory processes, most of the time discussions on planning strategies are made with the help of representations of spaces, such as visions and images. As the causes, contents, and results of participatory planning, architectonic space is externalized in the processes. After a project is built, the space’s role in public affairs is reduced. "These strategies act beyond the concept of an architectural production, which prescribes systematic process techniques to an extent as therapy for modern society" (Ott, 2015, p. 107)2. The problem is, no strategy, even that made by the public, can guarantee “good” urban life.

Under this token, researchers have started to open new visions beyond the theoretical and conceptual limitations of participation (Parnell, 2016; Björgvinsson, et al., 2012). This article joins them by returning to the core value of participation on equal articulation of opinions, and the architectonic value of space. The idea stems from my empirical work on boundary spaces of communities in urban Beijing, where boundaries are spontaneously created and transformed by performative actions, such as verbal exchanges, bodily movements, occupying with objects, and informal constructions. Such actions are temporal, unpredictable, and direct methods of negotiating on and in spaces. Can performative actions be understood as participation? Are boundary spaces the mediator that maintains publicness of spaces in their use? Should the concept of participation be extended beyond the planning to include the use of urban space? In the following I will discuss the possibility of such kind of participation, in which spaces are the mediators and performative actions are the form, and then analyze the performative actions in boundary spaces of five typical communities in Beijing as examples.

**Space as a mediator in participation**

The possibility of non-human actors as mediators is implied by Bruno Latour, who points out the difference between a mediator and intermediary. While the latter “express[es] the group, facilitate its cohesion,” the former “allows the group to exist as a group” (Latour, 2005a, p. 38). Mediators do not predict a fixed input-output connection. They instead “transform, translate, distort, and modify the meaning or the elements they are supposed to carry” (ibid., p. 39). The human “mediators” in conventional participatory processes are intermediaries, because they try to form a group and work toward a preset goal – to anticipate uses of space before the actual use. Such a method ignores the complicity of society and individuality and the fluidity of their needs. Both of the conditions require the flexibility of agencies and involvement in groups according to specific situations. These requirements are fulfilled - I will discuss later - when spaces emerge as mediators.

Spaces mediate both in the processes of participatory decision-making and in people’s everyday life. In the first situation, spaces appear in representations, which are provided as basis, limits or visions. Experiences of the participants in the perceived space are transformed into representations. Desires are also expressed by

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means of representations. In the second situation, built environment as the result of planning interacts with people through the positioning, moving, limiting, etc. of human bodies, which process generates the lived space. This corporal experience of space cannot be verbalized, visualized, or shared, and thus, articulated or manipulated, yet it is a component of the production of space supporting the interrelation between the space triad. The participatory practices in planning processes focus on the first situation, and often ignore the second.

Corporal interactions with spaces are always accompanied by the interpretation of physical forms. The occurrence of meaning in interpretation of an artwork is called "total mediation" by Hans-Georg Gadamer (1975/2004, p. 118), who values it as what allows the work to be and to reach completion. Each time an artwork is encountered, new meanings appear to the spectator. In this way the artwork promotes re-cognition is brought to the contemporary context. Karsten Harries (1997) developed this concept in architecture, claiming that architectural space carries spirits of a community, based on which each member of the community explores her own understanding of the space through her perception. The space mediated meaning construction is a harmonizing of collective values with individual experiences – thus an act of participation.

**Performative actions as a form of participation**

The term “performative” stems from philosophy of language, and was introduced to the field of architecture by Sophie Wolfrum (2010/2015) in the book *Performative Urbanism* to describe the understanding of architectonic space as a situation of emergence, when space appears through the perception of and interactions with it. "(…) performative constitutes a situation in which articulation itself generates a new reality" (ibid., p. 6). Performative actions bring social and cultural dimensions to physical spaces, otherwise they can neither carry cultural significance nor influence lived or conceived spaces.

Performative actions ensure the freedom and equality of participants by involving all humans and objects present in space production. A physical environment is never perceived alone without content. While the “actor” influences a space with her corporal movement, the “spectator” completes the space with her perceptions. In this way both become co-creators of the emerging space, and have an impact on it (Yang, 2015). “In the course of performance, a co-subject - actors and spectators present at once – comes into being, and the rigid dichotomy between subject and object has been broken” (Yang, 2017, p. 68). Due to the randomness of participants, actions and perceptions, the emerging space is unpredictable.

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3 ‘Art’ is used often in Gadamer’s discussion on interpretation, and the word is used with various indications. Here Gadamer addresses architectural space himself while explaining the term - “Total mediation means that the medium as such is superseded (aufhebt) …the performance (in the case of drama and music, but also in the recitation of epics or lyrics) does not become, as such, thematic, but the work presents itself through it and in it. … [T]he same is true of the way buildings and statues present themselves to be approached and encountered” (Gadamer, 1975/2004; P118).

4 The theory was first introduced in 2010 in the article *Performative Urbanismus* in German, the English version of which was published in 2015 in the book.

5 Compared to “performative”, “performance” only means the execution of an operation. In German, there are two words concerning “performance” - *Performanz*, and *Performance*. While the former refers only to the execution of an act, the latter indicates the production of a play or an art event, as well as metaphors used for urban space (see Wolfrum, 2015, p. 27).

6 Here “performance” equals the term “performative” in the context.

7 The word is originally italic.
Performative actions stimulate participation in making social norms through a conscious perception of oneself. Human activities are always conformed as rituals, i.e. actions, thoughts, and speech are restricted by social norms, morals and customs. Nevertheless, in addition to the ritualistic aspects, which is called "the order of representation" by the German theater theorist Erika Fischer-Lichte, performative actions also open a dimension of “the order of presence” based on individual corporal experience (Fischer-Lichte, 2004, p. 10). The spectator perceives herself as a perceiving subject, as well as her body as a carrier, presenter, or challenger of rituals. As one of the participants in spatial situations, the individual transforms social norms through staging her movement, and hence partially forms the emerging space.

Performative actions are collectively experienced events that contain meanings beyond individual lives. Through actions an individual life is connected to a greater form of life (collective) transcending its mortality (Arendt, 1998). “Being seen and being heard by others derive their significance from the fact that everybody sees and hears from a different position” (ibid., p. 57). A participant makes public appearances witnessed by the audience, to whose variety everyone contributes. Due to the interdependence of each other as spectators, a collective consciousness forms.

Our perception of architectural reality is "far beyond its objective or visual features" (Wolfrum, 2015, p. 13). Instead we experience it with all senses, knowledge, past experiences, as well as interpretations of other humans, objects and relations. Our bodies move from one situation to another in space-time, and our perceptions involve the physical environment in events, endowing it with meaning. Thus our reality is formed. The diachronicity of this reality is tied to memories of individuals as the dimension of time in space. Thus pasts assemble in the present reality (Figure 1).

![Figure 1](image)

**Performative actions in communities' boundary spaces in Beijing**

Boundary spaces of communities are the space perceived between the private or communal realm and city spaces. They signify a physical and cognitive shift from one place to another, but they are ambiguous themselves during this transition. Boundary spaces thus have the potential to promote performative actions. In the following, I will analyze how people participate in public affairs mediated by boundary spaces with performative actions, with data from five Beijing communities. It is impossible to show the entire variety of cases one by one within the limits of this article, therefore I will select the most typical cases to illustrate each argument.

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8 There are various definitions for community. This article draws on the definition of Ferdinand Tönnis (1887/2001), that a community is a cohesive social entity based on a unity of will and connected by living together on a piece of land.
The communities concerned represent existing community types in the city: the Gulouxi area in the Old City of Beijing (courtyard-houses), the Xinyuanli community (neighborhood-units), the Tsinghua University campus (danwei compound\(^9\)), the Ocean Express compound (gated community), and the Jianwai SOHO (open community) (Figure 2). The materials were collect in the past four years, including photos, mental maps, interviews, and participatory observations.

![Figure 2](image)

Maps and photos of the five typical communities in urban Beijing, from left to right: the Gulouxi area, the Xinyuanli, the Tsinghua University, the Ocean Express, and the Jianwai SOHO. The communities were built in different times with different social ideologies, which are expressed in their physical forms.

**Space of transition**

Boundaries indicate a transition between territories, i.e. contrasting atmospheres (Janson & Tigges, 2014). Changes of physical environment, as well as patterns of behaviors occur at a threshold. In some communities in Beijing, boundaries are marked by fences, city streets or a series of spaces. In some others, where the physical environment does not signify a clear boundary, thresholds are perceived in a synthesis of environment and behavioral indicators. These behaviors are thus performative.

The area of traditional courtyards in Beijing is an example of the latter. At a crossroad in the Gulouxi area where a “Hutong”\(^{10}\) connects a city street, two stands signify the threshold of a community. The stand owners offer seats to the passing-by acquaintances, and the stands become a gathering point of community members. The seats are an invitation for people to think about whom they are and what is their relationship with the community. Some sit down directly on a chair, some seat themselves beside the stands, and some others do not try to sit down.

The self-identifications of people are performed in each of their actions. By perceiving other people’s behaviors we also give them identities, which are compared with the self-identifications, and then we decide where to sit down. In this circular way identities are performed, recognized and enhanced at the crossroad, and boundaries are perceived accordingly (Figure 3). Performative actions lead to communication and transformation of identities as well. After several days of

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\(^9\) After the R. P. China was founded, there was a period when population was organized and managed in work units. Workers were bounded to their danwei for life, and each danwei created its own housing, social welfare, child care, schools, clinics, shops, post offices, etc. The ‘danwei compound’ (or work-unit compound) consisting of all these facilities was the correspondent urban form in that period until the Economic Reform. The form remains on most of universities campuses nowadays.

\(^{10}\) Hutong is the name of narrow streets between rows of courtyards in the Old City of Beijing.
fieldwork, I got familiar with the stand owners. I was invited to sit down and chat with community members at the stand. My identity was recognized differently and my behavior has changed

Figure 3
the shoe-repairing stand at the cross road in the Guolouxi area at different times of a day. In different situations people create different boundaries and are recognized with different identities.

Experiences of otherness at a boundary are the sources of performativity in boundary spaces. Boundaries differ in comprehensions of people, which lead to unexpected behaviors that recursively result in re-cognitions of boundaries. Residents in Hutongs understand the Hutong spaces as an extension of their private homes (Aoyama, 2016)\(^ {11} \), so that they walk in pajamas, cook and eat, and take a nap in the streets. To a visitor who perceives the streets as open spaces, the “Hutong Life” becomes a spectacle. At the modern open community Jianwai SOHO, both residents and outsiders do not hesitate to sit on the benches in the middle of the street, which are considered to be shared by everyone. The behavior of sitting down does not convey a clue of identities (Figure 4).

Figure 4
The differentiated performative actions in Hutongs and anonymous behaviors in the open community.

In old communities, such as street communities and neighborhood units, boundary spaces with difference rises as identification of participants take place. Similar situation is rare in commercial neighborhoods (gated and open communities) in which people keep anonymous with homogeneous behaviors. The identification draws on clues from interaction with various and informal objects, material and forms, which bring unfamiliarity and preference to spatial situations. Hence

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\(^{11}\) Historically the space in Hutongs was less open. A few single household courtyards shared it. The streets were arranged hierarchically and were not touristic. Today many courtyards are shared by several households, spaces in Hutongs are open and what took place in 'private' streets is shown to all.
boundary spaces as co-production of all people present emerge, connecting them and transforming their identities as mediators.

**Negotiating rules**

Boundary space is "still here but already there" (Wolfrum & Janson, 2016, p. 87). As an in-between space it blurs rules in both territories they distinguish. The ambiguity stimulates the perception of behaviors of others and oneself, and makes activities at boundaries performative as negotiation of rules.

At boundaries, people set up rules for themselves referring to others’ behaviors. Imaging this situation - an outsider wants to take a small street behind a gate for a shortcut, but she does not know if passing the gate is allowed. If someone sits there and stares at her, she might not dare to try. Such situation is common in the neighborhood-unit compound *Xinyuanli*, where buildings and spaces are surrounded into yards by fences\(^\text{12}\), but most yards are free to enter and people at the gate are not guards. The outsider’s intension, hesitation or acts, as well as the resident’s watching are actions negotiating rules, with both others and oneself. During my survey I tried to “invade” seemingly boundaries. The experiments show, to a normal behaving young female, most of the guarded or seemingly closed doors are open, such as gates of *Xinyuanli*, doors to multi-household courtyards, gates of the gated community, and lobby doors of the open community. However, when I held a camera, I was stopped at the last three cases. My behaviors influenced rules for me, and boundaries I perceived.

With rule-making performative actions people participate in public affairs in the use of space directly. In *Xinyuanli*, residents transform rules by changing the boundaries in front of buildings. The open spaces were shared collectively when the neighborhood was built in 1960s. Since 1980s, residents started to privatize these spaces. They put out objects to occupy parking spaces for themselves, as a gesture of resistance against the local government’s\(^\text{13}\) management of parking places (more efficient but not for free). "The spaces belong to the residents, and the government has no right to make money out of it"\(^\text{14}\). Objects in open spaces signify private spaces, which became a rule. At other places, residents build extensions to their apartments. Some extensions take only part of the space, but the spaces left are no longer considered as shared spaces (Figure 5).

\(^{12}\) The yards in the compound belonged to different danweis (work-units), and each danwei organized guards and maintenance of its yard separately. Since the ‘Housing System Reform’ in early 1980s, residential apartments went to the open market and guards have been dismissed.

\(^{13}\) In China, the lowest level government is an autonomous organization run by resident representatives.

\(^{14}\) The quotation is from an interview with a resident in the building.
The changing looks of the physical space are reifications of on-going public negotiations in the neighborhood, through which residents participate in making rules for the community. Their opinions on “how the space should be used” are expressed in physical environment. Either in the individual’s struggling on interpreting and searching for rules, or in collective negotiations which changes physical environment to set up rules, the changing boundaries represent changing power relations in everyday life that control and connects a community.

Constructing communities

“…[T]hresholds could … concretize the spatiality of a public culture of mutually aware, interdependent and involved identities” (Stavrides, 2007, p. 174). In boundary spaces difference among individuals is presented, and the harmonizing of differentiated behaviors are experienced by all as a collectively participated event, through which the people are connected in the resulted spaces.

Attending public affairs in boundary spaces is an opportunity to construct a community. In the examples above, boundary spaces of the Xinyuanli tolerate presentation of different opinions in space, through which different groups are formed in negotiating on and in spaces. The local government plays rather the role of a participant than a manipulative power. In communities with “strong” management, such as the Ocean Express, the order in open space is strictly kept, and the residents have neither the necessity nor the possibility of participating negotiation of rules. Correspondingly the collective consciousness of the residents is lower. A professional company is hired for the management work, and the residents withdraw themselves from public affairs.

Collective consciousness appears also with meaning presentation at landmarks or memorials that become collective symbols. As the symbol of the Tsinghua University, the Old Gate attracts thousands of tourists each day. The Old Gate generates a boundary space of different realities. The reality of tourists is based on images. Tourists have seen images of the university the media, and they visit the gate to overlap a “real” experience with their presence in the images. The reality for the students and residents on campus is living related. The gate represents their campus life. Many alumni take wedding photos with the gate, thus combine it with other important moments in life. The two (and more) realities share little in common, yet the gate gathers them together and connects them in one spatial temporality. The gate is “real” to the visitors with the presence of those who are identified as students, and

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15 The gate was the entrance gate of the campus since it was built in 1909, until an expansion of the residential area of the campus in 1933. See: http://www.tsinghua.edu.cn/publish/newthuen/newthuen_cnt/life/life-2.html. Last access: 20. Feb. 2017.
the students are reminded their identity with “real” connection to the university encountering visitors. The realities experienced are juxtaposed on the emerging space.

Communities constructed in boundary spaces can be also diachronic. At the entrance of the Ocean Express, a plaza with trees attracts office workers nearby due to nice shadows in summer. Some senior citizens sit there for the whole day on their own stools, which is uncommon to the environment. In interviews they told me that they were assigned by their work-unit to plant the trees several decades ago when the place was a wild field. They spent years on the task, and enjoyed the result afterwards with colleagues like the office workers today. Luckily the trees survive the mass urban development of Beijing in this in-between space, although their work-unit does not exist anymore. The trees are symbols that revive memories of their former collective, which is brought contemporary by their presence in space (Figure 6).

Collective consciousness appears when individual connects meaning presentation to a space experienced with others. The connection can be made through public affairs, spatial symbols, or collective memories. The consciousness appears only in spatial temporality as performative actions take place, which brings communities alive. As Latour (2005a) has argued, social groups are not something pre-existing to be proved in empirical observation, but to be brought to existence through observers’ grouping.

Conclusion

The conventional participatory planning has been facing problems due to its static view of spaces, which suggests the decision and construction of physical space with public involvement could produce “good” living space. Understanding participation in performative actions is to view the spaces as relational that emerge in interactions with human beings.

Space can be a mediator, since it connects users, experts, and those in power in its production. In the use of spaces, meanings to individual lives, collectives and the space itself appear, and are harmonized as cultural ethos connected to the place. Performative actions can be a form of participation, since they involve all people present equally in the creation of architectural realities. With performative actions people transform social norms with their behaviors, experience collectively events in which public affairs are negotiated.

Employing case studies on five typical communities in Beijing, the article gives examples of boundary spaces as mediators. Boundaries bring consciousness of
others in space, which makes everyday activities performative, through which people directly communicate with different understandings and requirements. The actions form and transform the perception of boundaries and related behavioral rules. By making and arising memories of such events boundary spaces promote self-identification and construct communities in spatial-temporality.

The observation of boundary spaces in Beijing shows an alternative way of participation – participation in the use of space. The ambiguity of rules at community boundaries tolerates informal constructions and various activities. This can be an inspiration to make loose regulations in planning strategies in European cities.

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Home is Where you are (not)
Cultures of Domesticity in the Age of Multiple Belongings
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Abstract. In the age of global migratory flows, the traditional territories of belonging are increasingly destabilized, and the notion of cultural identity is becoming fluid. Home is where you are (not) was developed as a Master Thesis project in order to trace the link between the domestic territory and the construction of cultural identity in the case of translocal populations. Through experimental and narrative tools of research and design, it identifies embodied and spatialized practices of domesticity and identity construction. Resulting from the research process, minimal architectural interventions for the urban realm connect the individual with the common and act as incubators/producers of public space.

Keywords. home; identity-construction; cultural identity; diversity; public space.

Introduction
At a conference about public space, someone talks about home. Is this a detour or a displacement? We are not referring here to the comparison of public space as home, usually encountered in urban studies. This research explicitly looks for expressions of home-ness in the territory of the private and the domestic. And yet, this is a necessary trajectory for a particular line of thought, one which regards the personal as the political, and therefore dearts from individual and intimate experiences to touch upon collective narratives. Drawing inspiration from feminist critic, we will talk about the construction of identity through performativity and about the body as site of multiple discourses. Yet, where does a body start and where does it end? Where does the self start and where does it end? And where does the home start and where does it end? Instead of looking at these questions from the inside-out, from the house, to the city, to a possible homeland, we will try to draw non-concentric, overlapping and dynamic circles of belonging, and thus territories of fluid identities and multiple homes.

Home is where you are (not) was the title of Lydia Karagiannaki’s dissertation project in the International Master of Architecture at KU Leuven. Its intention was twofold: On the one hand, it aimed at mapping cultures of domesticity for translocal populations currently living in Brussels. At the same time, it was an experiment for alternative ways of teaching and practicing architecture, operating at the interface of diverse disciplines, such as anthropology, material culture studies, and critical theory. It was the outcome of the attempt, and desire, to liberate design education from its traditional methodologies and spaces of learning, namely the university studio, and to welcome the wisdom of the social context which design is supposed to serve.

The dissertation makes use of the spatial knowledge of local communities through experimental research tools, but it is not a typical participatory design, as often encountered in cases of self-organization and activism (Blundell Jones et al., 2013; Robles-Duran and Ferguson, 2014). In the following, we will present the Master Thesis as an ‘incubator of public space’. While introducing the main methodological tools and theoretical concepts, we will first describe the dissertation project itself and later continue with investigating the notions of both ‘incubator’ and ‘public space’ in the context of the Thesis.
From the House to the Home

The realization of the fact that our societies are premised on the condition of constant migratory flows is not a new one. For an increasing amount of the global population, migration, in its multiple formats, is the norm rather than a state of exception. Brussels illustrates an exemplary case: Employers and trainees of international companies and European institutions, academics and university students, artists and activists, second and third generation Turks or Moroccans, Polish construction workers, Syrian families, Indian shop-owners. These are only some of the groups which might be externally or self-identified as expats, immigrants or refugees, categories which are accompanied by ethical connotations and imageries. Stemming from different backgrounds and following different trajectories, those groups contribute to a kaleidoscopic image of the city, as repository and palimpsest of superdiverse subjectivities (Vertovec, 2007). As part of their cultural background, those people bring along their unique ways to use and navigate through space. Ways which should not be regarded as solid characteristics, but as identities in constant negotiation.

Home is where you are (not) aims at mapping those expressions of hybrid cultural identities in the territory of the private house. In a condition of displacement or exile, voluntary or forced, temporary or permanent, how can one trace the passage from the House to the Home? How does the Home recreate the sense of belonging, by constructing and reconstructing the identity of its inhabitants? How are cultures of domesticity modified when they are re-installed into a new domestic and cultural environment, one which was created under fundamentally different conditions and with possibly different criteria than those one was previously accustomed to? And what are the similarities and differences between notions of Home among the most diverse residents of Brussels?

To build a House you need cement and steel. To build a Home, you need the material of dreams. In order to trace the passage from the House to the Home, the research is structured in four steps. In the first one, we approach the Home from its psychological and cultural perspective, focusing on aspects such as privacy, identity and cultural production and reproduction. In the second one, we present a series of in-depth interviews which were conducted with residents of different origin, gender, age, class and lifestyle. In the third chapter, we look for the practices of domesticity and expressions of identity in Lydia’s own household, through a process which we call “Archaeology of a Home”. Finally, the fourth chapter proposes three architectural prototypes for the public space, which combine elements collected in the previous steps. By merging and recreating places of belonging, those prototypes of relational architecture facilitate dynamic processes and transactions among different bodies, as well as between bodies and objects, in order to test possibilities for collective, multi-layered identities.

Negotiating identity

While the term “House” refers to an architectural concept defined by spatial and spatio-economic polarities such as inside/outside, private/public, production/reproduction, the notion of “Home” constitutes a rather complex and inherently migrant concept among different epistemologies (Mallett, 2004). “Home” transcends the mere materiality of the House and becomes the imaginary locus where the space of where you are coincides with the person of who you are. In order to fully possess it, one needs to create a double image of it (Van Imschoot, 2016), as a canvas where one might project their dreams and desires, images of safety and belonging, but also one’s biography and understanding of identity.

A Home might be linked to a precise geographical location whose radius is variable, a city, a province, a country or even a continent (Saunders, 2003), and this depending always on a comparison made. Embracing both spatial as well as
relational aspects, it gets modified over time and ages together with us, through our contact with the “other”, novel places, different people, significant events and redefined ambitions. The Home might be the place where one was born and grew up, the place of current inhabitation, or even a place one is heading to. In this sense, home is where you are, or where you are not (Heller, 1995). It is constantly haunted by the myth of return, and yet this is not merely a return to a particular space, but also to a particular time (Boym, 2002). Along their journeys, the mental image of Home follows the displaced and attempts to be re-installed into the new spatial and social context.

For the project of the Master Thesis, it was therefore interesting to trace where people with different places of origin defined their Home, and for which reasons. Approaching Home as a verb rather than a noun, we were interested in how people ‘do’ and feel at Home (phenomenological approach), instead of asking what a Home is (ontological approach). This set the focus on the dialectical relations between bodies and objects and the embodied procedures which transformed a dwelling into a Home (Despres, 1991). In the course of the interviews, the current place of residence in Brussels often emerged as a sort of heterotopia (Foucault, 1986), a place both here and there with translocal characteristics and references. These were expressed both as objects (e.g. a table) and material practices (e.g. ritual of a Japanese bath) which were connected with a sort of “memory work” and had the capacity to be regarded as “nostalgic structures” (Bourdieu, 1977). It is precisely this spatialized and embodied culture (Low, 2014), linked to objects and practices, through which people may actively and daily construct and reconstruct their identity.

It is crucial here to establish a difference, but also a link, between individual and collective identity. Facilitated by its very privacy, the Home constitutes an intermediate field in culture, a territory upon which both collective and individual rituals, expectations and imageries are continuously and simultaneously projected and negotiated. “The home is a practice” through which the “production of the creative self and the mere reproduction of prescribed forms of activity” are constantly related to each other (Van Herck, 2005). Beyond romantic and homogenizing concepts of “the migrant home”, the research therefore focused on the multiple and unique interpretations of each fragmented identity.

**Domestic narratives**

The second part of the Thesis is comprised of a series of eleven in-depth interviews conducted with residents of Brussels from diverse cultural backgrounds. Instead of using any formal medium as a questionnaire, these were conceived as open-structured conversations which aimed at establishing a degree of comfort and trust. Eventually, in the course of the discussion, the correspondents were encouraged to talk more freely about themselves, their everyday habits and rituals, memories and future plans, stories of embarrassment or loss.

The discussion started with the biography of each person and continued to the neighborhood of residence, in order to understand their interactions within the broader socio-spatial context and the relations nurtured with neighbors of other cultures. The second part concerned the life as practiced and experienced in the domestic territory. We discussed their current and previous residence, different layouts and renovations, changes resulting from the evolution of family formations. They talked about the rooms they spend most of their time in, what they are doing there and with whom. About functional built-in furniture, underused living rooms and delineations of privacy between partners or within familial relationships. However, most importantly, we talked about what Home means to them and how it relates to the spaces, rituals and their cultural or familial references. For a woman from Turkey, for example, there was an incredible feeling of pride when she talked about the five coffee tables placed within her living room. Through her narration,
these coffee tables could become manifestations of her daily ritual of serving tea, deeply rooted in the Turkish understanding of hospitality. A Japanese home in a Belgian-Japanese family was only present as a wish for a Japanese bathroom, a ritual of relaxation at the end of the day. Moreover, for a young student from Bulgaria, her home was preserved in the form of her bedroom furniture, which she had constructed together with her deceased father shortly before his loss.

Figure 1
Hand-drawings of the correspondents

The intimate and narrative quality of the interview is of central importance, as it recreates everyday situations and corresponds to the narrative character of the notion of Home itself. A Home is not merely a three-dimensional space, but precisely the stories we are creating about it, stories which are inscribed in its materiality and which are constantly retold and modified over time. “Things”, or material objects, are of course important part of one’s Home, but they only make their appearance within the framework of the domestic whole as parts of the daily life of the inhabitants (Heidegger, 1927; de Visscher, 1998). They might serve some aesthetic or practical purpose in the present time, but their duality is situated in their capacity to be both fabrics and fabricators of memory (Hurdley, 2013). Therefore the way in which people accounted for the objects and practices of domesticity was actually more important than the practices and the objects themselves.

Parallel to our conversation, and as an experimental tool which summarized and displayed the correspondents’ idea of domesticity, the medium of the hand-sketch was deployed. During our discussion the interviewee was asked to draw the house they currently live in by themselves. This has a twofold significance for the research method: On the one hand, drawing as a physical activity connects the mind with the body and in this sense recreates the body’s movement and perception of space (Pallasmaa, 2009). At the same time, the participants’ sketches act as exceptional manifestations of cognitive images of Home. From the most minimalistic to the most expressive one, each of those hand-sketches presents a remarkable similarity to the verbal narration of its author. The information included in the drawings refers not only to visual facts but to a whole set of sensual experiences, such as sound and touch. Exactly as with professional designers, the drawings of laymen demand the
recognition of significant knowledge which might be hidden or suggested between the lines, such as concepts of importance, proximity, and privacy (Anders, 1998). The way their authors depict elements and their spatial relations reveals the symbolic, rather than the actual layer of reality. In this sense, as opposed to presentations, those hand-drawings are regarded as representations of reality (Tversky, 1999), mental images and conceptualizations of the very notion of the domestic, identity and belonging.

The Common Home

The final chapter of the dissertation concerns the design of three independent architectural prototypes for the public space, in the form and scale of small installations. The area of intervention is the commune of Sint-Joost-ten-Noode, notably the smallest, culturally most diverse but also socially most vulnerable neighborhood of Brussels. In this very particular context, the Sleeping Cabin is placed in the unused site of a demolished building, the Table is an unfolding continuous structure on a public square, and the Playground is situated in a small hidden park.

The installations are composed out of fragments collected directly from the interviews, material elements which are both individual and common and facilitate daily practices of domesticity and their manifold interpretations. The Sleeping Cabin, for example, illustrates three possible modes of privacy which might be included in the interpretation of a home: the private, the public and the commons. It combines the suspended structure of a bed with a part dedicated to collective cooking and eating, while its particular location embeds it into the public life of the city. The Table is conceived as an unbroken line of adjoining parts in multiple formats and heights, prototypes of various tables which were encountered during the interviews, such as a Turkish coffee table or a Japanese Kotatsou table. The surreal mega-structure is unfolding throughout the central square of Sint-Joost and even “climbs” on the surrounding buildings, always adapting and reacting to its architectural environment. This particular prototype arises out of the importance attributed to the furniture of the table, its multiple versions and hosted activities, traced in the majority of the interviews (the Table as the Hearth).

The installations are conceived as imaginary and ironic artefacts, exaggerated, daring and precarious constructions, similar to the image of Home itself. They illustrate narratives of domesticity and belonging, fragmented compositions of diverse and sometimes contradictory cultural references. Together, they propose articulations and materializations of the mental image of Home. The fact that the prototypes are composed by elements which are found in actual domestic situations is insofar important, as they are linked to real biographies and display wisdom embedded in experience. In a double heterotopic movement, those objects refer to existent elements of domestic spaces, and in turn, they refer to translocal places, both in Brussels and beyond.
Moreover, “things” or objects embody movements and practices (de Visscher, 1998) and invite the passers-by for their appropriation. This corporeal dimension of the prototypes rejects their merely visual reading and seeks to expose how meaning and action, or practice, interact in interdependent ways to reinforce cultural identity and behavior (Bourdieu, 1977). In this sense, the domestic character of the prototypes cannot refer to a fixed ontological attribute but is in a constant process of becoming.
The examples of the three prototypes, as manifestations of spatialized cultures, display the narrative and performative disposition of the notion of Home. However, what is most essential for a discourse on the collective urban space, they propose modes of **radical togetherness** or, in Nawratek’s (2015) words, **radical inclusivity**. The diverse and sometimes antagonistic elements of each design are called to transcend their egoistic purpose and participate in creating a “common good”. The combination of diverse cultural elements not only expresses individual histories, but also challenges the very capacity for their co-existence. In this sense, the prototypes refer not to a homogeneous community, but to an inherently heterogeneous collective. The collective is itself a **commons**, that is a common resource, in which antagonistic positions protect each other’s right to exist in order to bring about a dynamic discursive exchange. The body of the commons is a unified and yet polyphonic body which might reject a coherent identity and set of ethics, but which consciously depends on its inter-subjectivity. The Commons, and with it the prototypes of the Common Home, is not a theoretical concept, but a precarious attempt, materialized at the moment of its performance in the realm of public space.

**Producing public space**

The dissertation project is approached as an anthropogeographical exploration of the city of Brussels. Operating within a challenging urban environment, it expands the notion of diversity by taking a close look at invisible processes which accompany a state of migration and uprootedness. By tracing diversity from the intimate to the public (Ramadan, 2011), from fragmented identities of multiple, non-concentric and overlapping belongings to an urban space which shapes and facilitates (or fails to facilitate) their expression, more than a typical design exercise the project becomes a particular type of an “Incubator of public space”. However, what is the precise meaning of these four words in this particular context? The notion of the “incubator” initially made its appearance in the design field as an economic concept for encouraging innovation, experimentation and local creativity through the establishment of particular “zones” in the city (Davelaar and Nijkamp, 1986). The effect of such zones was believed to be not just the economic, but also the sociospatial revitalization of particular neighborhoods, formerly known for their degrading status. In the context of the Master Thesis, the term of the incubator refers clearly to the social characteristics of the neighborhood of Sint-Joost-ten-Noode. The experimental design approach of the three prototypes and the intimate stories behind their creation confront directly issues of diversity and challenge the capacity of architecture to restore social coherency. The experiment of the prototypes is not saturated in the delivery of a design. Their essence is only reified through their appropriation by the community of the neighborhood, through the capacity of diverse bodies to inscribe new meanings and histories of hybrid migrant cultures into the hardware of the architecture.

As for the notion of “space” and the way it is approached throughout the research, this derives directly from the legacy of H. Lefebvre (1991). Beyond its rational/Cartesian interpretation, space is understood as a social construct. Its meaning arises not merely through the spatial relations among its elements, but moreover out of the dynamic sets of interactions among the individuals which occupy it. When referring to public space in particular, one has to examine the social relations and power structures which are historically inscribed in its materiality. **Who has the right to be in public, and which are the limits of self-expression?** One should not forget that the public space is the space of appearance (Butler, 2011), and in this sense, beyond the architectural, it acquires a deeply political significance. “Politics, in general, is about the visibilities of the places and abilities of the body in those places, about the partition of private and public spaces, about the very configuration of the visible and the relation of the visible to what can be said about
it” (Rancière, 2011). In this regard, the dissertation project shifts the demarcation between the private and the public and connects the individual with the collective. The personal is becoming again political, by being visible in public, and by claiming its right to existence. Singularities and differences are exposed and negotiated. The architectural design challenges the concept of assimilation or even integration, and instead, it proposes “spaces of intersection, where it is possible to meet on equal footing” (Ramadan, 2011).

The three prototypes of the Common Home (the Sleeping Cabin, the Table and the Playground), are therefore not just “Incubators in public space” but “Incubators of public space”. They are not simply situated in the public sphere, but most importantly they produce and embody publicness, understood as the arena of confrontation and debate, of challenge and risk, of trial and error. Their surface is not merely a supporting infrastructure for multiple activities, but becomes an actor within the wider spatial and social context of the city (Nawratek, 2015). If the city is the locus of heterogeneity par excellence (as the space of being with the “other” and of being with “otherness”), they reframe the discourse on domesticity through its exposure to this heterogeneity. By taking “Home” out of the confinements of the four walls and placing it into the space of appearance, the proposed architectural interventions call for the reconceptualization of our translocal identities and a new understanding of togetherness in the age of globalization.

Conclusion

Reflecting back to it almost one year later, Home is where you are (not) looks more like an ongoing quest rather than a resolved exercise. It opened questions which haven’t been able to be fully answered yet, such as if and where lies the threshold between cultural and familial references. Or what is the ethical responsibility of the researcher towards the people interviewed and whose personal stories become the raw material for the proposed architectural intervention? Yet, throughout the research, this was approached with a feeling of incredible grace, admiration, and honesty towards the intimate human nature which we encountered. And while it has been indeed a rather difficult project to accomplish within an academic context which has been skeptical or simply unprepared to deal with interdisciplinary and research-oriented methodologies, the Thesis also escaped from the confinements of academia and is currently being materialized as a participatory design workshop together with the local community center in Sint-Joost-ten-Noode.

Home is where you are (not) has been an attempt to move from an architecture which focuses on outcomes to an architecture which acknowledges processes. An experiment of expanding our Western, white, middle-class and heterosexual understanding of identity towards more fluid and inclusive concepts of belonging. The architectural design is a laying-bare of the spatial mechanisms of identity construction and home-making, but also a prototype of a commons for the production of public space. It is an incubator of public space which not only connects our body to our imagination, but also asks us, what is the public space that we want.

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Humanitarian Urban Living Container Villages for Refugees Development
A Participative Framework Design for Refugees

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Abstract. The paper addresses participative computational design as a key technological asset in the development of smart and sustainable cities. In particular, the research targets the contextual/culturally-aware adaptation to refugees' requirements at urban fragment level. Cities’ policymakers have to take into account many factors, in urban development policy, such as situational, technical, cultural and human-related factors as well have to anticipate future usages. The need for sheltering is increasing due to different factors related to natural events or human activities. Countries are developing policies and programmes aiming to answer the need for sheltering. The objective of the current research is to help policy makers and humanitarian workers in the optimisation of the camp at urban level, while taking into account the participation of the users in the design process. The application of the parametric modeling approach to a camp’s design enables the optimisation of space layout planning and the rapid provision of “possible” solutions taking into account initial requirements and constraints. The research hypothesis followed in this paper is based on the participatory involvement of not only stakeholders in the design of camps but especially also the users. The objective is to ensure that the result will meet the needs and requirements of the end-user parties, also valuing specific cultural issues. This approach should, therefore, help the refugees to feel “at home” and has the potential to accelerate post-disaster mental recovery.

Keywords. Humanitarian design, participative design, parametric modeling

Humanitarian need

Natural and human activities have been the main reason for regular disasters throughout history of mankind. Disasters are identified as a series of disorders in an operative community or society causing not only substantial material, economic, and environmental damages and losses but also the loss of human beings. Managing these losses exceeds the ability of the affected communities and the available resources. External interventions are required to respond to the humanitarian needs. This research considers that humanitarian design is quite similar to the usual collaborative approach in the design and construction industry. Indeed it involves multiple actors with different missions, interests, and expertise (Balcik et al., 2010) such as in architectural design and construction (Kubicki et al., 2006). The involvement of different stakeholders in the management process is very important, as preparation and interaction of communities, business structures and NGOs with the public authorities can enhance awareness and response to various possible or existing threats, help to mitigate the consequences of crisis, and enable a recovery process for the population (Survila et al, 2016). Informal camps are being built from scratch by the population themselves to provide a settlement for them and their families. On the other hand, poorly organized camps are not respecting the requirements of the population living there and not taking into account the specific cultural needs. Unfortunately, such settlements are being transformed into slums with harsh living conditions failing to provide the most basic services for refugees. The planning of refugees' camps should be performed as soon as possible during the intervention process rather than to wait for calm or stable periods (Corsellis and
Vitale 2005). The knowledge of the interventions after the crisis is often based on previous experiences either to answer the direct needs of the displaced population or to focus on a long-term process of development (Santos et al., 2013). Moreover, the diversity of stakeholders makes it sometimes difficult to find and implement the appropriate collaboration network (Charles et al., 2010).

**Challenges in humanitarian responses: Community participation, and satisfaction**

The heavy workload and the complexity of humanitarian response remains a major obstacle in responding to the post-disaster needs. Immediately after a crisis, the decision makers have to identify the actual needs before they can start any action or intervention to assist the humanitarian needs. However, they face many challenges related to the identification of needs and solutions for the crisis, which may be different from other previous cases with unstructured information coming from different sources with different means of expression (Jihan and Segev, 2013). Furthermore, organized camps are intended to answer a short-term crisis. The refugees’ camps mostly last longer than five years, the average duration of a refugee situation being 25 years according to (UNCHR, 2015c). The current situation of camps is not adapted to long periods of displacement. Critical to the success of refugee settlement is the principle that communities should participate in the development of their settlement. Contributing their time, skills, resources and culture, refugees can help in the success of their settlement (UNCHR, 2015c). The involvement of refugees in the development of their settlement seems to be difficult to achieve since the time needed to respond to the crisis is crucial. As the average period of a refugee's settlement can be more than one generation, it is important to provide a settlement that reflects the life-style of refugees.

**Participatory design**

The term participation has been used to define different activities, such as civil debate, communication, consultation, delegation, self-help construction, and political decisions (Davidson et al., 2006). However, participation in design started from the idea that individuals affected by a design project must have a position in the design process. Recently, designers and product/service suppliers have been moving closer to the future users of what they design (Sanders and P.J. Stappers 2008). The participatory approach (i.e. ‘user as partner’) has been led by Northern Europeans since the early 1970s. Several projects in Scandinavia set out to find the most effective ways for computer-system designers to collaborate with worker organizations to develop systems that most effectively promoted the quality of work life (Sanoff, 2000). The participation is not a matter of fact, but a distributed, heterogeneous and relational process (Andersen et al., 2015). This consists in making a move from user-centered design to a participatory design with important impacts on the traditional roles of players and stakeholders in the design process (Sanders and P.J. Stappers 2008). In the classical way of the design process, the user intervention is passive; the designer brings the knowledge from theories, observation, and interviews.

On the other hand, in participatory design, the roles and tasks will be different since the user (who usually has a passive role in the traditional design process) will be given the position to express his or her experience and will play an important role in transmitting knowledge into ideas and concept development (Sanders and P.J. Stappers, 2008). Even with capability added to participative design, this remains a responsive system, where the designers are looking for comments about their design and the public is not truly empowered to design (Cimerman, 2000). The concepts around participatory design or creation, vary widely among different studies in social science. To support participatory design, a wide variety of methods and techniques have been developed to enhance the involvement of both users and stakeholders in
User participation in architectural and urban design

Community design is an umbrella term that embraces community planning, community architecture, social architecture, community development and community participation. This approach has emerged from the fact that the mismanagement of the physical environment is a major factor contributing to social ills (Sanoff, 2000). Computer application experiences and technologies demonstrate that the use of computers can facilitate the integration of the user into the decision-making process. Today, the complexity of designing and constructing buildings is increasing. Engaging the user in the design-related process issues will ensure the realisation of the users’ requirements in the design (Kwieciński and Slyk, 2014). Various research and practices have explored the methods and techniques to engage the participation of the users in the design of their living environments. The user participation in the design has emerged as a key to bridging a gap between the requirements and the solutions proposed by the designers (Sanoff, 2000). The idea of user participation in design grew out of the 1960s. Many examples of co-operative housing projects appeared in the UK between the 1970s and 80s. Similarly, the participation approach in housing design appeared in many European countries. In Luxembourg, the “Caritas Foundation” has provided standards and requirements for participatory design of housing projects. In their book (Fondation Caritas Luxembourg, 2014), they identify the benefits of participative housing projects and the best practices. Information development and new technologies, such as 3D modeling software, communication platforms and serious games as tools for urban planning, are offering new potential for citizen participation in urban planning design (Hanzl, 2007). In general, these software systems enable data to be displayed in forms that can be easily understood by the participants. The informatics applications will allow for a simulation of future urban plans by implementing the parameters essential to the development plans.

At the urban level, the benefits of community participation in urban planning are: enhancing the capacity of the population to cultivate a “stronger sense of commitment”, increasing user satisfaction and creating realistic expectations of outcomes (Al-kodmany, 1999). In participative urban design, a key feature of most participative design activities is the use of physical artifacts such as sketches, games, or layouts on which participants can place objects to represent houses, gardens, roads … The physical dimension of participatory design seems to be important, a gap to be filled between CAD (computer-aided design) applications in architectural/urban design and the physical dimension. Tangible tabletops are a complex tangible user interface supporting various stakeholders’ tasks and interaction in a collaborative way, interaction with the device are deployed by physical objects. Tangible tables can be foreseen as a participatory technology that helps to increase the engagement of users and community in urban design by manipulating physical objects (Maquil et al., 2007), tangible tabletops can be used in the application domains of urban planning for a collaborative decision-making. In later research, Wagner illustrated how to use a set of participatory technologies in combination with methods to enable participation to create a vision of an urban project (Wagner et al., 2009).

Digital serious games are another approach to simulate participatory urban planning design. They aim to support learning in a playful and engaging way. They
represent an emerging research area, enabling learning about the environment and an exchange of contrasting views on proposed urban, regional, or landscape plans. The ASPIS (Auditing the Sustainability of Public Spaces) project developed a serious game to introduce citizens to the potential of active participation. By using serious games, the participants have the possibility to interact with the design submitted, to vote for the preferred option or even chat with other participants (Poplin, 2014). Recent trends in the video games industry focus on improving graphic quality and easy-to-use attractive interface, which led to using video games in urban studies, teaching and research (Rufat and Hovig, 2012). A common game is SimCity, developed by William Wright it is used in university laboratories for urban simulation research as a tool for participatory design in an urban context (Hanzl, 2007).

User participation in humanitarian context application

It appears that the participation approach is not as simple as it seems when we deal with a humanitarian context, where the user participation is essential to ensure a mental recovery and satisfaction in the responses implemented following a crisis situation. “Participation in humanitarian context […] is […] about demonstrating respect for members of affected populations, by recognising their right to have a say in choices that impact on their lives.” (ALNAP, 2000).

The use of participatory approaches in an emergency situation context is challenged by the fact that this approach takes time, whereas the need to have fast answers is primordial in such a context. It may not always be suitable to adopt a participatory approach in the immediate post-disaster response where people may have other concerns. An important challenge for the participation of the population in the humanitarian response can be defined as the cultural access concerning the difficulty that the humanitarians from the outside may have in their involvement and engagement in the local community as a result of linguistic, behavioral and other cultural barriers (ALNAP, 2000). Another challenge for humanitarians seeking to engage the crisis-affected populations (which are not related to our study here) can be related to humanitarian structures, to politically focused critique and the social modification that occurs by engaging populations in the design process (Brown et al., 2014). The participatory approach can be important to identify security risks, factors that make people vulnerable, and to find the opportunities and solutions for decreasing them since the population is more likely to provide information about complex security and requirements issues. The participation of users in the post-disaster activities can be performed in different ways. Users can be directly involved in the construction works, or they can have an active position in the designing, decision-making, evaluating, controlling, or just be consulted. In his research, Davidson has identified four participation types for involving users in the design and construction of their houses (Davidson et al., 2006). Users can be empowered and construct their houses. In this case, professionals and engineers will control the quality of the construction to ensure that all standards and codes are taken into account. The second type of participation identified is the participation in the construction of houses designed by other parties. The users, in this case, will have the opportunity to add/modify the dwelling. The users have limited interaction with the design in the third type where their role is to evaluate the propositions with a possibility to add or make changes. In the fourth type of participation, the user is only informed about the decisions made, they have no involvement in the formal decision-making process.
**Previous research**

CAD is shown as an important way to accelerate the design of facilities. Computational methods are increasingly integrated into the design process and the generation of forms for contemporary architecture, and some applications have also appeared in the humanitarian field. Yeung focused on the application of digital architecture in the low-tech reconstruction of the Solomon Islands (Yeung et al., 2011) targeting a set of parametric tools applied to latrine construction. Another example is the case study of post-earthquake Haiti (Benros and Granadeiro, 2011); automated systems were developed to create houses, and this example focused on the resulting documentation as a set of construction drawings. Jinuntuya focused in his research on the use of digital tools and games’ 3D virtual environment engines for developing a decision-making support system for humanitarian needs (Jinuntuya and Theppipit, 2007). Recently, the authors worked on the development of villages’ containers in Luxembourg directly involved in the refugee crisis in Europe and worldwide. Emergency refugee accommodation in Luxembourg is being provided at former hospitals and the Luxexpo (Exhibition and congress centre). To meet the growing influx of refugees in Luxembourg, the Luxembourg Government decided to create 3 “container villages” as a temporary emergency dwelling. In a recent prototype development, (Daher, et al., 2016) the authors proposed a computer-assisted development process and applied it to the Diekirch location. A first analysis of the site was performed to identify the constraints to be implemented. Identification of the usage requirements and data collection on refugees were essential to parametrically define the constraints and variables. These constraints are related to contextual (site accessibility, site orientation, site constructability and usage brief) and numerical constraints (number of persons, the dimension of the containers and specific requirements). In this demonstration, the chosen variables are related to physical aspects: (1) the general configuration layout of the clusters, (2) the definition of the entrance to the clusters, (3) the number of stories, (4) the parameters related to the passage between stories, and (5) the structural elements. A prototype was developed based on the implementation of these constraints and variables (Figure 1).

![Figure 1](image)

*Visualization of the final automated configuration of clusters*

This review shows that even if efforts are undertaken to develop participation processes in some situations, the impact remains limited. Users are not directly involved in the design process; and their involvement is usually passive or sometimes related to addressing the local knowledge of construction to professionals. Also we notice that the participation of users in the design of their settlement only relates to the shelter level and does not cover the urban nor territory levels. We should also note that today, architects, organizations and volunteers play an important strategic role in assisting refugees in different phases of the
camp’s/shelter’s development, where schools, shelter units, and other service buildings are being designed and built through a close collaboration and communication between both refugees and other parties. As our previous case study exposed, we have answered the need of developing refugees’ container village camps in Luxembourg with numerical and non-numerical constraints. However, this prototype is developed without the participation approach.

**Project approach and proposition**

Our current work aims to enhance the design process by allowing the participation of users. However, since “participation” can have different definitions, and for the purpose of this paper, it is considered as an approach to actively engage people affected by a disaster (i.e. refugees) and empower them to influence post-disaster responses and decisions. It targets sheltering and settlement levels, either by evaluating or participating directly and indirectly in the design process. The participation in construction works that users might provide in some cases is considered out of the scope of this work. The general idea is to cover a wide range of users’ needs since the camps provided are in many cases failing to ensure the sufficient services that allow better life conditions for refugees when considering, in particular, a long-term duration of a camp. To answer the challenges related to the integration of users (refugees) in the design process at the right moment we cover the following questions:

- Who are the users to be involved in the participatory design?
- What issues should be answered by the participatory approach?
- Where and when should the participatory design take place?
- How should the users and stakeholders be integrated into the participatory design process?

The whole research methodology starts from observation of the context related to the humanitarian camp design and identification of tools for participation and design. Then a framework is proposed and aims to answer the issues related to the participation of the refugees in the design of their camps. Development and prototype assessment are expected, but are out of the scope of this intermediate paper (Figure 2).

![Figure 2](image_url)

*Research development frame*

**Propositions:**

The review of the literature has already confirmed the importance to start the participation at the earliest stage and to continue throughout the implementation cycles of a camp. Our objective is to create a framework supporting the participatory design interaction in the humanitarian camp at different phases and rely on computer-based 3D models. Following the initial analysis developed in the previous
use case, we suggest the following scenario that should constantly be updated/informed/evaluated by the participation of the refugees in our case. To create this framework, we had to identify the different type of tasks that can be performed (Table 1) in the design process. These tasks constrain the design and the participants to focus on each of the following aspects: form, functions, requirements, and performance. A continuous process of design analysis enables participants to explore, modify and evaluate choices to help them to make decisions. The toolbox to be developed as a support to the framework contains a variety of architectural modeling and analytical software associated to interaction devices covering different types of participation and different types of intervention. A 3D-based graphical interface helps the users to more easily understand the design output solutions. In the following table, we identify the type of tasks on one hand and the devices associated to perform these tasks on the other hand. Tasks can be related to: (1) public decision-making such as the site selection in the framework, (2) collaboration either in the identification of the requirements, the design or the evaluation of the design, and (3) technical, simulation and performance of design solutions.

<table>
<thead>
<tr>
<th>Type of tasks</th>
<th>Description</th>
<th>Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public decision</td>
<td>Decision-making about the site to be deployed or the settlement action to be started</td>
<td>GIS, tangible table, touch screen</td>
</tr>
<tr>
<td>Participation:</td>
<td>The work related to the identification of the requirements of needs of refugee</td>
<td>Tangible table, statistic devices, grasshopper, touch screen, crowdsourcing</td>
</tr>
<tr>
<td>Requirements,</td>
<td>Related to the design of the urban planning and at a later stage the design of the shelters</td>
<td>Simplified parametric tools, Tangible table, web-based platform, 3D architectural/urban software, crowdsourcing</td>
</tr>
<tr>
<td>Participation: Design</td>
<td>The simulation and performance of the design</td>
<td>Parametric tools (Grasshopper, Dynamo…)</td>
</tr>
<tr>
<td>Evaluation,</td>
<td>The evaluation of the design by the reporters or the users</td>
<td>Smartphones, tablets. Social network interface, crowdsourcing, game engine</td>
</tr>
<tr>
<td>Reporting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1
Matrix of tasks and devices

The framework (Figure 3), starts by collecting data about refugees to define the ethnic groups and create the communities to minimize the problems and eventual clashes between refugees. Each community is represented by two or more representors (participating in the direct meetings) with professionals (humanitarian organizations and camps managers, political parties, architects/engineers and volunteers, researchers). The role of representors does not avoid participation of other users. Indeed, the reporters are the users involved in the indirect participation. Contrarily to the idea that we might have, most of the refugees have smartphones, tablets, and other technological devices. Indeed, the internet and mobile communication have transformed life in the developing world over the last years, the information and communication are easily available. While access to the internet might be limited to refugees, efforts are made by humanitarian organizations (UNHCR and Accenture, 2016) to ensure that refugees and other displaced persons can also have access to the internet and mobile communication. The identification of the requirements is performed by both professionals and the representors of communities.
A tangible table device is proposed as the main tool for the visualization requirements. After validation, these requirements will be transformed by professionals into design parameters. The exchange of information in this module is expected through using social media platforms such as Facebook, Twitter or other platforms. Such communication channels should ensure a transparent process. Once the requirements are defined, the professionals with the representors will produce an urban-level layout. This layout will also be communicated to the reporters to evaluate the design and modify it and comment when needed. The exchange of the first planning layout will be done by applications as well using game engines and parametric plug-ins. The final module considers the design of the shelters for which two options are proposed. The first option is when the refugees participate in the design of their shelters for which an 3D easy-to-use application will be developed.
taking into consideration the elements of the shelter and the construction requirements. Private sessions can be organized for some users when needed to configure shelters using devices and tools such as the tangible table. The second option is when an automated configuration is performed by professionals taking into account the needed parameters and requirements.

Discussion and future work

Humanitarian organizations have been focusing on increasing the effectiveness of humanitarian response through greater predictability, accountability, responsibility and partnership. Important research has been done to increase the capability for emergency response at the international level regarding sheltering. Answers had a tendency to concentrate at the macro level, rather than on the affected populations themselves. Refugee camps can be comparable to urban districts or small-scale cities. Similarly to cities, camps should be providing adequate services to ensure the quality of life of their inhabitants. Services should be minimally related to healthcare and educational institutions, sanitation, and an amusement area. However, refugee camps fail to provide these basic services due to a lack of suitable infrastructure or financial and political reasons.

In this research, we try to answer the challenge facing the humanitarians related to engaging the users/community (refugees) in the design of their facilities. We focused on the design of a framework integrating different CAD applications and human interaction devices. First discussions with people involved in the humanitarian work are encouraging. Next steps will be related to a deep validation of the process proposed as well as the engagement of population that can be expected, through continuous interviews with NGOs and humanitarian organisations, as well as through a wide internet-based survey. In parallel, the work will address the computer support necessary for developing the framework, especially regarding 3D parametric modeling. Further, the choice of interaction devices will be carefully performed to foster the involvement of non-experts.

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Building Up the Empowerment

New Public Spaces in Progress: the Example of Participatory Maps

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Abstract. We focus on a way of thinking “public spaces” not only on a geographical point of view, but as a way to link it to conception of “public sphere”. Our main goal through our research-action is to understand the concrete processes of a citizen capacitation. It also aims to question a new definition of “being involved in” while the way of taking part to collective action has changed a lot since years, especially with the emergence of social networks. We intend to underline the power of the mediation between the public sphere and the public spaces. We also focus on the social, economic and political support that has to be carried out for gathering public spheres and public spaces as a new participatory process. Attached to pragmatism movements, we admit that citizen capacities depend on multiple spaces, processes and transaction objects. Those tools can only create the needed conditions for building up actors’ mobilization and political action. Two maps’ examples would be a good occasion to focus on micro-interventions, which could be disseminated in some LabCities. This contributes also to question the relationships between actors, social devices and spaces.

Keywords. participatory maps; public space; civic competences; engagement; urban commons

Based on the results of our research-action CREA’CIT (Creative Citizenship) developed in France and funded by Hauts de France Region and Metropole Européenne de Lille, this presentation will focus on a way of thinking “public spaces” not only on a geographical point of view, but as a way to link it to the Habermas’ conception of “public sphere”. Our research underlines not only the conditions needed to develop empowerment but also how capacities, specially “civic capacities” (Talpin, 2010), can be developed throughout the whole process.

Our main goal through our research-action is to understand not only the motto, but also the concrete processes of a citizen capacitation. It also aims to question a new definition of “being involved in” while the way of taking part to collective action has changed a lot since years, especially with the emergence of social networks. In this frame, we tend to underline the process of involving and committing our-selves not only in the “public sphere”, but also in the “public spaces” on an urban point of view.

The idea of “public sphere” and its transformation is a key concept of our research CREA’CIT. Based on three main ideas, we intend to underline the power of the mediation between the public sphere and the public spaces. In this frame, we also focus on the social, economic and political support that has to be carried out for gathering public spheres and public spaces as a new participatory process.

Public space making: the challenge of participation

Speaking about participatory also means opening our way of doing with people not-yet-involved. Researches in sociology & politics have well documented impact and limits of the institutional dispositive of participation (Carrel, 2013). Public policies, especially the ones dealing with community organizing or with “Politique de la Ville” (which can be translated by “taking actions for the social cohesion of cities”)
in France since decades, are developed on a mandatory participation, seen as a “participative injunction” (Blondiaux, 2001).

The participatory process: a circle more than a ladder

Those participative injunctions and other tools developed by the State or the local authorities are seen as a way to promote a participatory process. Nevertheless, those processes are quickly deserted. Several researches have underlined the institutionalisation and the negative impact on the local assemblies, where the bottom up initiatives are normalised to a specific ladder of participation. The participatory process is indeed usually represented through the Arnstein ladder of participation.16

More than a critic of this schema, we want to promote through our research another way of thinking the participatory mobilization level, through a circle.

The usual steps are kept and the movements from manipulation to information and then to cooperation is still as proposed in 1968. But the circle adds a possibility that refers directly to the Commons and specifically to Urban Commons. The circle follows the inherent limits of a citizen control without link with the public sphere, leading to a new way of thinking manipulation: a manipulation by citizen. Indeed if our target is to proceed to Urban Commons, we’ll need to invest in a new pattern of active citizenship, in which crowdsourcing can play a crucial role.

Figure 1
Participation Circle

Referring to Dewey’s democracy definition, the “public” as needed is an interaction between the civil society and the local authorities. The meeting point between institutions and citizen will offer a place for discussion, that we can call “Assembly of Commons”, as proposed in this next figure.

Derelict spaces, within Lille area and around, are at stake as in many European cities. These sites (“friches” in French) represent opportunities for collective actions held by social groups; for actors taking roots within segregated people from poor areas and finding there matters for collective action in that new uses and activities, held in commons, are designed.

So, as plots remain vacant, they could be the basis for new types of mobilization and action. The actors, holders of projects rooted in the surrounding neighborhoods, can

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be involved in the development of these urban “friches”, being present in the official procedures for consultation, but also, and particularly, by experimenting new deliberative practices held by new forms of collective action. In our urban and regional context we are at the very beginning of a federative process in order to facilitate some local mobilizations and, at the same time, to make them converging. What we try to sum up here is a strategic view on the social fabric of urban commons through these local mobilizations, and the political process needed to progress toward an Assembly of commons.

Figure 2
Towards an Assembly of Commons

Based on the mobilisation on revitalising derelict spaces, new spaces appear creating a new “public sphere”.

Mobilization/Occupation: “Occupy the Friche”...
Existing collectives from the surrounding areas created in order to develop some specific collective uses, hold in commons (more or less), take/negotiate a place within the specific urban development plan dedicated to a Friche through actions of community leaders assisted by professional community developers.

Initiation/Creation: A Friche “Incubator of collective actions”...
From the institutional consultation process, part of an Urban Development Plan concerning a Friche, a dynamic begins helped by community leaders and developers in order to organize people and build groups around some specific uses and activities.

We can also describe the process against the Urban Commons as based on a process which will focus only on the elected representatives.

Institutionalization
The derelict space embodies an example of a bottom-up policy that is carried out by the local council. As a follow-up, it does not belong anymore to the citizens but this derelict space has been only implementing by the local authority. Consequently, the bottom-up initiative has disappeared.
We can finally describe the process against the Urban Commons as based on a process that will focus only on a community scale, without interaction with the other inhabitants, as a collective point shared only at a really small scale. It could be then described not as a Common, but as an enclosure by a small community, trying to protect its own property against the other uses.

**Enclosures, seen as “Common-alization”**

The derelict space is seen as a communalism process on a local scale. The follow-up can thus be a partial point of view and lead to a dogmatic vision of the society. The Common principle in then reduced to a small community that is not able to share the city as a Common but as its common.

Particularly attached to constructivism and pragmatism movements, we admit that those capacities depend on multiple spaces, processes and transaction objects. Those tools can only create the needed conditions for building up actors’ mobilization and political action.

**Inquiry as experimentation: maps examples**

Inquiry for Dewey always proceeds out of a shared background of norms and values that defines its parameters and directs it toward the preferred outcome. We support our inquiry on an experimental base, furnished with processes. Those processes of action and reflexivity are based on the actors themselves. Space has a double impact. On one hand, it has to be seen as a place, where the issue is taking place. On the other hand, it is a part of the scene, where multiple interactions are confronted and open to deliberation. This means that the process has to be conceived on a narrow link with the different categories of actors involved, seen as specific “publics” (Dewey).

In one of our study contexts, we are focusing on participatory maps. Object of representation, map is also something we can refer to, as a transactional object. A map has its own vocabulary, it facilitates an appropriation for inhabitants or for tourists; even more, a map is a powerful tool, which can be found in any political issue. Map-making is oriented. Map-making fosters a feeling of being part of and tends to underline an identity. Nevertheless, if a map should belong to anyone, it is far away from the principle it would like to incarnate. Created for representing peoples’ interests, it is slowly embedded by institutions and engaged in a power game, where it will separate spaces, track the borders and highlight the so called major places. Map will thus loose in identity and will be limited to a commercialized propaganda. The raise of open sources movements for free mapping, fighting for a better mobilisation from the local actors, underlines the place that cartography can play in social cohesion and participatory process. Based on this ideology, the code is widely open for promoting large open source maps and is shared by thousands of users, as it is on Open Street Map17.

To involve people, to raise their will to contribute and to take part to is not an easy task. Social workers, local authorities, consultants and many other urban professionals are dealing with this main issue. Based on the idea of promoting what they want to show from their territory, even if considered as a derelict space, participatory maps offer opportunities to give value and voice to people that are usually forgotten. Targeting on different audiences, those initiatives are a way to contribute to a better territory image, but also to work on a good re-appropriation of everyone’s neighbourhood.

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17 www.openstreetmap.org
Crowdsourcing maps: a new public space-making?

a) Political point of view

In the frame of our research-action, Interphaz has been developing two kind of participatory maps. Their goals are to involve inhabitants into the creation of a tool, which embodies the city they live in. More than just a part of their territory, the map becomes a way of speaking about what they do, what is counting for them. Involving different types of publics, those tools are a good example of a new way of involvement into NGOs. It reveals significant kinds of developing social and civic competences. The two actions are not based on the same audiences and developed with different approaches.

Use-it map // Launched in Belgium by a backpackers network, Interphaz was the first one raising it in France in 2012. Since then, several other French cities have their own. The original point is we count on a youth mobilisation, appealed by the fact they will show up their city to their neighbours. Our Use-it map has been developed throughout a participatory process, which was not the case in the other cities.

Cart’ier project // With the Use-it experience, Interphaz, helped by a local NGO (Nasdac), has been working on the Cart’ier map. More than a participatory process, this tool can be seen as a way to think the regeneration and the changes within the Lille-Fives post-industrial neighbourhood. Supported by the Foundation de France (throughout a call for tenders dedicated to Participatory Processes), this map was oriented on four main goals:

- Fostering the appropriation of the district by its inhabitants
- Gathering a common memory on the cultural heritage to share with the new generations
- Promoting artistic and cultural heritage in a post-industrial neighbourhood
- Developing innovative and participative touristic tools
As usual, the whole process has been measured through qualitative and quantitative indicators. Concerning the qualitative ones, it appears a great influence on the territory, but also on the people themselves involved in the process. Revealing the raise of civic competences\(^{18}\), we can sum up those orientations in three main axes:

- The built of an empowerment capacitation, which is deeply linked to citizenship and to the right of practicing it.
- The built of an actionable capacitation, which will be used into a collective dynamic (linked to the sociology of engagement) (Thevenot, 2006).
- The built of socio-economical and socio-political capacities.

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\(^{18}\) Special Issue, La Revue Française de Sciences Politiques, (2007, Vol 57)

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The different publics involved in the action are as follow:
- The core team (teams’ employees);
- Associations’ members engaged into the action;
- Engaged people, taking part to all (or most of them) events of the action;
- Mobilized people, as multiplier members;
- Participants, taking part to some actions of the whole;
- “Flying participants” which come by chance or come for the final event.

Every « public » and every person can thus be concerned on the base of its movements on this space of capacitation. We are working on how to characterize these movements depending on the social positions of persons and publics. The movements depend on time, on projects and even on the different actions involved in a project. It means that a person will fly from a position to another one, building by this way a “new public space of proximity” (Laville, 1994) in a political sense.

b) Urban point of view

Referring to an urban point of view, we can explore the idea of a new public space-making throughout this process at least on two dimensions.

Firstly, this process can contribute to develop a new approach of public space-making, as the inhabitants are clearly the first ones to contribute to the urban expression. Thanks to the Cart’ier experiment, some explanations’ posters were disseminated in the derelict space and offer a great historical background to walkers. Developed through a participatory process, the city is designed to show what has to be seen or experimented. The local stroll is made by locals and the appropriation of heritage is thus a word of mouth transmission. The way the public space will be generated is not through local authorities, but depends on the way people will integrate the inhabitants’ proposals in their own habits, as a tourist, as a new inhabitant. Interphaz and Nasdac were already sensitized to this idea, as they proposed walks in the neighbourhood, seen as a way to create a new practice of this under construction public space.

Secondly, this process can contribute to open a discussion with the space itself. As explained in the figure, the derelict space can be seen as a conflict. Gathering people from different backgrounds on a tool is a way to re-invent the space itself and to go further the conflict, by offering place to imagination. The participatory maps are offering a concrete object to discuss on a base of imagination. As realized with the Cart’ier project, some children were invited to offer their point of view on the neighbourhood they would like to live in, offering great ideas such as a beach or a permanent ice cream sell. From these funny proposals, we can easily admit there is a need of places for children in this area. The lack of green places offers the possibility to re-invent spaces for mixing publics, which can eventually become a public space. There is indeed a way to inverse the perception of public space-making: it is more a place where people are meeting in order to speak out and think about their public life than a public construction under public responsibility and authority. A link with intermediate spaces can clearly be done, as an invitation to think the place of economics and to open our mind to a new private/public partnership. This new partnership has to put in the centre the citizen. In those conditions, the partnership is no more a private/public partnership, but a private/public/citizen one, built in common in order to develop a new approach for public space-making.

In other words, this partnership has to be built on crowdsourcing. Does it mean that this crowdsourcing public space-making has to be crowdfunding? We have no answer yet. The first Use-it map that Interphaz has developed was realized through a tiny support from local authorities and a wider one through crowdfunding. This can be a base to a great discussion and can offer a good base for inventing a Chamber of Commons, where economics and Commons will contribute to affirm Urban Commons.
As a conclusion, those two maps’ examples would be a good occasion to focus on micro-interventions, which could be disseminated in some LabCities. This contributes also to question the relationships between actors, social devices and spaces.

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Relational Architecture, Experiences from the Psychiatric Field
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Abstract. The Kanunnik Petrus Jozef Triest Square is an open structure in the heart of the Caritas Psychiatric Centre in Melle (near Ghent, Belgium). It is an unexpected outcome in the margin of the development of a vision for a spatial masterplan for the psychiatric centre. Inspired by Doina Petrescu’s ideas on the user-architect, all the users were brought together at the drawing board. Workgroups of psychiatrists, managers, staff and patients examined the question of how the psychiatric centre in the future should look like. In this text I open the files of the practice-based research conducted at the Caritas Psychiatric Centre. The newly opened Kanunnik Petrus Jozef Triest Square is the starting point to reflect on 1) the possibilities to common the (psychiatric) clinic, 2) the construction of design intelligence on care architecture, and 3) the dialectics of process and object in the dissemination of architectural knowledge.

Keywords. Care architecture, psychiatry, commons, design intelligence, dissemination

Introduction

Summer 2014 we were asked by the Caritas Psychiatric Centre in Melle (near Ghent, Belgium) to define a spatial masterplan on the occasion of a massive demolition program for pavilions built in 1908 and the future building program of a new crisis unit and a children and youth psychiatric unit. The request was a miscast somehow. Clearly the director and the principal psychiatrist were inspired by case studies on care architecture I had been publishing over the years in Psyche, a quarterly magazine published by the Flemish Association for Mental Health (VVGG). No doubt a design practice is something else. ‘Tell me, what is care architecture?’ asked the director in our first walk through the small universe of the psychiatric centre – referring to the header of series of articles. Unease was even bigger after my hesitation to provide a ready-made answer to the directors’ ominous question. Enthusiasm was restored after a provocative proposal to elaborate the masterplan through an interactive process involving everybody. The rationale being that the definition of care architecture should take into account local specifics and should be done in close engagement with local actors. The proposal was motivated by a theory course on the commons taught together with Lieven De Cauter at the KU Leuven Faculty of Architecture in which we attempted to bridge philosophical works on the topic with architectural practice today. In particular the hybrid work of Doina Petrescu and Constantin Petcou (Atelier d’Architecture Autogérée) provided the conceptual tools to envision how the commons lead to other ways of doing architecture. The master thesis project of Fie Vandamme (2014) in Leuven Central Prison, in which I participated as promotor, was used as a proof that it makes sense to engage users, in this case a group of long-term detainees, in deepening an architectural debate.

And so it happened that different workgroups of psychiatrists, managers, staff and patients were brought together at the drawing board to envision a spatial masterplan and find an answer to the question of care architecture. Interestingly the course of events took an unexpected turn not only dreaming up the psychiatric centre of the future, but also directly intervening in the ongoing building process. While at first the demolition of a Century old heritage was accepted as given framework for the vision development, it became clear to all participants that staying true to the
new vision implied a redefinition of the very framework itself. Halting the demolition process and redeveloping the ruin-like Saint-Josef pavilion into an monumental outdoor structure started to function as a *pars pro toto* for the psychiatric centre of the future.

The ‘Kanunnik Petrus Jozef Triest Square’ – as the monumental outdoor structure was renamed in reference to the founder of the hospital – became the laboratory for the psychiatric centre of the future, both sketching the contours of the future and allowing to test-drive the future here and now. The sudden creative idea to save the Saint Josef building triggered a chain of consequences at administrative level: finding support at the Board of Directors, renegotiating the contract with the demolition firm, redirecting budgets, dropping the life-long blanket contract with the architect, etc.

The presentation of the draft masterplan to the full staff was scheduled at the new year reception (January 25, 2015). In the weeks leading up to the presentation, the idea to save the Saint Josef building gained sudden attention after a sketch was brought to the Board of Directors (January 5). The idea was further worked through in ad hoc workshops with elderly patients in day treatment and patients in the treatment program for Young Adults. In the following months the conversion of the Saint Josef building took over the process. The invited tendering to architects was finished June 2015. It took another year until the Kanunnik Petrus Jozef Triest Square was opened in June 2016.

In this article I open the files of the practice-based research conducted at the Caritas Psychiatric Centre. It allows to reflect upon few elements that are key in rethinking architectural production in the field of mental health care:

Chapter 1) discusses how the resocialisation of the psychiatric centre demands a reconceptualization of the current hospital architecture and another design practice.

Chapter 2) discusses the contribution of the workgroups of psychiatrists, directors, staff, and patients in formulating a new design intelligence on care architecture.

Chapter 3) discusses how the new design intelligence was activated and embedded in the daily functioning of the psychiatric centre.

1 Commoning the clinic

Making architecture a subject of common deliberation is unusual in the institutional context of mental health care. The design of hospitals is a technical affair dealt with by the facility management. Moreover, lifelong blanket contracts make that the architect is the subject-supposed-to-know everything about the hospital qua infrastructure. Input by the staff is limited to the definition of the requirements – assisted by patients in the role of so-called ‘experts by experience’. Theories on the commons provided us with a line of flight to introduce the user – patient as well as staff – onto the playing field formerly reserved for the architect alone. A good starting point are the three elements that Massimo De Angelis uses to unfold the concept of the commons.

In the first place, it is most important that the psychiatric centre is in the words of De Angelis ‘[…] some sort of common pool of resources, understood as non-commodified means of fulfilling peoples needs’ (Anarchitektur, 2010). In our case, the hospital is certainly a private domain – property of the Sisters of Mercy congregation – and functioning with public budgets – involving both federal Health Care and regional Welfare. At the same time the famous Article 107 of the Hospital Act (Ziekenhuiswet, 2008) has changed the mental reality of former asylums re-conceptualizing it as part of so-called ‘care circuits and networks’. Today mental health care programs make use of the social services in villages nearby and the other way around: the psychiatric centre presents itself as an extension of these social
services – for example by opening up the sports infrastructure to local organizations. Also the care circuits hook into the private home and family life of patients using mobile teams, day treatment programs and drop-in houses. This institutional wave change in the field of psychiatry provided the excellent backdrop to deconstruct the architectural and spatial setting and deal with it as a commons.

The community is the second element of the commons. “Communities are sets of commoners who share […] resources and who define for themselves the rules according to which they are accessed and used,” writes De Angelis (Anarchitektur, 2010). Of course, the institutional context poses practical problems, such as creating free time in staff schedules. A bigger obstacle we faced was the ethical question whether patients can be enquired about the therapeutic setting without disturbing the individual treatment. An answer was found by changing the subject position. In the workshops the patient is not considered as the needy person in search for help, but someone that is, based on everyday spatial experiences, very well capable to provide design suggestions. The heterogeneity of the user group was a second objection. The psychiatric centre is an impossible community with conflicting interests – in the first place between patients and staff. The first deals with the psychiatric centre as a care environment, the second as a work environment; the first is – at best – a sojourner, the second has a long-term contract; the first is in residence night and day, the second working in shifts, etc. This issue diluted along the way as it became clear that patients and staff often share similar spatial experiences – most notably the feelings of estrangement in what was called the ‘empty sea of green’ (Boie and Vandamme, 2015a).

The third element concerns is, again quoting De Angelis, “the verb ‘to common’ – the social process that creates and reproduces the commons” (Anarchitektur, 2010). A series of workgroups was set up dealing with several combined treatment programs: 1) Anxiety and Mood Disorders, 2) Gerontopsychiatry, Non-congenital Brain Defects and Mental Handicap, 3) Rehabilitation and Day Treatment, 4) Children and Youth Psychiatry and 5) Psychosis Treatment. The workgroups formulated in common deliberation the needs and desires both in words and images. Ten or more transversal concepts were used to crosslink the loose ends in a more or less coherent spatial program. The workgroup results were discussed in a parallel trajectory of masterplan committee including members of the Board, management, psychiatrists and the architect. Having the workgroups behind us, we found the masterplan committee being not so much a filter as well as a possibility to ratify the common proposals. Final result was a set of spatial structure plans concerning heritage, green spaces, mobility, places for activity, places to rest, etc.

To put the three elements in motion, however, it was necessary to build something I would define as the ‘atmosphere’ of communing – using a term coined by Susanne Hofmann (2014) to stress that importance of the corporeal experience for user engagement in her practice with Die Baupiloten. For that purpose we looked for a meeting place outside the board rooms. Our dream to create a pop-up workshop in the empty Saint-Josef building was said to be impossible as the demolition works could start any day. In the end a left-over room at the entrance of the hospital restaurant was perfect décor to discuss fundamental issues in a low pressure atmosphere. The meeting culture in the psychiatric centre was turned upside down by moving tables and chairs aside, using walls and floors to exhibit materials, distributing snacks and fruits, etc. The result was, using the words of Hofmann (2014): “The drawings, collages, collections of adjectives, photo panels, or atmospheric models that arise from these workshops create an […] atmosphere which makes communication and understanding between architect and user more fluid.” Apart from that, holding onto the joyful atmosphere is paramount – as atmosphere will easily collapse the moment people feel that input is not taken serious in the following design process. It was therefore that we reported incessantly on all discussion topics and provisional outcomes. Equally important were the extra
feedback loops stemming from spontaneous actions by staff organizing patient enquiries, walks and photography sessions. Finally informal feedback was acquired from casual chats while loitering around the campus.

2 Constructing Design Intelligence

The workgroups of psychiatrists, management, staff and patients functioned as a vehicle for the formation of a new ‘design intelligence’ on care architecture (Speaks, 2010). Strikingly most participants experienced architecture in terms of what Charles Jencks (2012) called ‘negative architecture’ – a factor that puts constrains on everyday acts and limits our imagination – for reasons easy to understand. A lot of buildings in the psychiatric centre are not designed for the specific function it houses today. Internal moving of entire treatment programs are frequent and it makes that staff have to fit their visions and values within ready-made buildings. Another problem is what we could call the ‘relative inertia of space’. ‘Everything is clear enough in absolute space and time, but things get a bit more awkward when it comes to relative space-time and downright difficult in a relational world,” wrote David Harvey (2004). The design of new buildings often look hopelessly outdated the moment it is finally put to work. Development of visions and values have a totally different pace. And, accelerations in the building process lead to a zero degree in architecture – as we see in the temporary container constructions.

The visions fostered by psychiatrists, management, staff and patients equally collided with the pre-existing design knowledge available in the psychiatric centre. Taking a look at the recent buildings on the Caritas site – erected short before and after the year 2000 – show shameless repetitions of blueprints. Custom typologies and elements in hospital architecture are easily copy-pasted – often disregarding differences between somatic care and mental health care. We see a mess of endless corridors with mirroring rooms and dysfunctional sitting areas knitted together by nursing posts. We see heroic forms that keep up the appearance of a welcoming holiday resort in a remote green environment. Michael Speaks (2010) defined these two elements specifically – fixed typologies and heroic forms – as the obstacles of a new design intelligence. And making it even worse: the generic architecture is in sharp contrast with the hyper-specific characteristics of the treatments for all sorts of psychiatric profiles.

Architecture was experienced as an infrastructure – or better called an ‘infra-architecture’ (De Cauter and Dehaene, 2007) – that is not so much an invisible and neutral support but is on the contrary an omnipresent medium that colors the content during the operation. Fighting this situation, the workshops created a space in which the users could express their real needs and desires. Against the capacity of stereotypes to absorb creativity, Michael Speaks (2010) defended that it is only from ‘chatter’ and even ‘bullshitting’ that design intelligence is born. The talks in de workshops were certainly a sort of bullshitting in so far as it is meaningless within the usual architectural reference frame and also irrelevant in the usual decision processes. I prefer to talk about ‘professional bullshitting’ or ‘dead serious bullshitting’. The needs and desires expressing another kind of architecture imaginary were not just some hollow phantasies but are motivated by visions and values people hold dear, and are inspired by spatial experiences in specific situations. These are not ready-made typologies and elements, but real life fragments that were discussed in mutual respect and carefully reflected upon from all sides. Charles Jencks (2012) wrote: “architectural determinism works in some conditions, but only to a degree, and it depends on the culture of the inhabitants and their other conditions of stress and well-being.” It was by installing another design culture that we turned this omnipresent view of ‘negative architecture’ into something the director defined as ‘space of potentialities’.
Doing so, it became possible to rethink the hospital as – using a term introduced by Marcel Smets (2006) in his former function of Flemish Government Architect – an ‘integrated architecture project’ that merges with both the vision on care fostered in the local facility and the everyday services provided there. The design of hospitals is – as with other institutional building programs – usually wrapped in a linear process. First the requirements are defined and subsequently the architect is asked to invent an appropriate architecture. In the workshops a dialectical process was evolving, allowing the staff and patients to talk about architecture directly. Thinking in terms of space allowed them to reflect upon unresolved paradoxes of mental health care and in turn the visions and values were immediately tested taking into account the necessary spatial requirements (Roose, 2016).

Finally, bringing a heterogeneous group of users together made it also possible to think architecture in terms of ‘scenarios’ (Oosterling, 2013). Blueprints, typologies and structural elements are useful only when we stick to autonomous functions in the psychiatric centre – residential area, hospital school, control, therapy, etc. Having talks with users all having different responsibilities, competences and capabilities and all being active in different treatment programs, the workgroups started to define the interval spaces connecting the one or the other function. A question that received a lot of attention was for example what was called the ‘in-between zone’ – the transition from inside to outside, the distance from the residential area and the restaurant, the arrival or departure at the psychiatric centre, etc. Other questions were the navigation or wayfinding throughout the labyrinth of corridors and doors, the difficult match of surveillance and presence, etc. The scenario does not concerns one element but defines the relation between one, two or more spaces and equally includes conflicting functions at the same time.

3 Disseminating knowledge

In qualifying participation processes it is tempting to take the organization form as yardstick – being either horizontal or vertical. From a democratic perspective the initiative of inhabitant committees and action groups are favored above the initiative of government agencies and institutions (Petrescu, 2005). The authentic character of participation is, however, more likely linked with the possibilities for dissemination of results. Peter Verhaeghe (2017), architect-activist involved in the successful protest against the Oosterweel Highway Link in Antwerp, stated that a government is legally forced to launch a public hearing, but not forced to read the complaints and suggestions by citizens. Doing so a massive energy and possible knowledge is drained away in a bureaucratic procedure. But compulsive participation is not reserved for government action alone. Also genuine horizontal participation processes can get caught in turning circles. There are enough horizontal cases to find that ended up in endless deliberations and actors became blind for eventual anchoring point to translate their insights into a living practice.

Dissemination was the toughest challenge we faced in the vision development at Caritas psychiatric centre. The different groups of users proved to be well interested and capable of raising their voice once there is an appropriate apparatus for critical involvement set in place. More energy was needed to stay true to the desire that was formulated and envisioned in common, i.e. to embed the articulated needs and desires in ongoing processes, adapt it to ruling procedures and enable people to act accordingly. We found three ways for the dissemination of knowledge.

In the first place the common vision was articulated in seven or more spatial structure plans articulating the future use of heritage, green spaces, mobility, places for activity, places to rest, etc. The problem of these spatial structure plans is that they are nothing but ideal images without binding power and providing no guarantee of impact on the terrain. In our case for example, soon a conflict aroused about the layout of a parking plot in the open field facing the administrative building – a field
considered sacrosanct by many as it provided a unique open view from the entrance and restaurant. Spatial planning is a delicate practice of ‘para-architecture’ (De Cauter and Dehaene 2007) as it defines chalk lines for the future and is therefore doomed to remain a paper dream image circulating in the parallel world of decision making. Although being delicate fictions, we experienced that the spatial structure plans do have a massive force. As these plans are ‘bricolages of desire’, to use again the terms of Doina Petrescu (2005), they provide a ‘strong basis for negotiations’ about future spatial developments and building projects. In the end the spatial structure plans are the tangible pieces of a vision and discourse constructed in the gatherings with psychiatrists, management, staff and patients – and that’s why they may well be compromised, but they can never be simply wiped out.

Dissemination happened, secondly, through articles presenting the questions, debates, and provisional outcomes as general knowledge to a broader public. The Psyche magazine was used as platform not only to publish critical case-studies – as we did for years – but now also to construct a series implicitly called ‘Building Stones for the Psychiatric Centre of the Future’. The publications often faced both informal and formal critique from the people working at Caritas. For example, the article discussing the re-use of the heritage as step stone for the future – Sint Jozef in particular – provoked questions about the rigidity in which new functions were allocated to specific building (Boie and Vandamme, 2015b). Although the general public was addressed with premature ideas, the articles had nonetheless a considerable effect on the internal process of vision development. The articles were helpful for the actors involved to ‘digest’ the issues and enabled them to cross through the ‘spatial thickness’ of the psychiatric centre, i.e. the thick layer of uses and habits that unwittingly supports the spatial setting as we know it (Doucet, 2015).

Finally the project definition for the re-use of the Saint Josef building was a third element of dissemination. Along the way of the workshops, the Saint Josef building started to function as pars pro toto. For almost magical reasons that one building became the central point of reference in the talks. The central position on the campus, the idle function for years and the unfinished demolition certainly had something to with it. Anyway the Saint Josef building enabled every stakeholder to translate their needs and desires about the future in a very tangible way. The vision development for a spatial masterplan suddenly tipped into a highly concrete, localized and urgent action. At the same time bodies of abstract knowledge about care architecture was catapulted into the heart of the organizational management of the psychiatric centre. Once having the idea to re-use that empty building was up in the air a chain of consequences were triggered. The general director called us late in the day leaving the message: ‘Let’s do it! Prepare a note and we will convince the Board of Directors to halt demolition’ – it was in the middle of Christmas Holidays. It took another year to come to terms with practical affairs: re-negotiating the contract with the demolition contractor, re-arranging the allocated budgets, finishing the life-long blanket contract with the architect, scripting a project definition that included as much as possible information from the workgroups, launching an invited tendering process for architects, etc. In short, the reuse of the Saint Josef building functioned as a ‘point de capiton’ on the streams of consciousness and feedback loops circling around and forced all people involved to start dealing with the future now (Zizek, 2002).

Conclusion

The Kanunnik Petrus Jozef Triest Square is a ‘proud product of rebellion’ by a psychiatric centre undermining the way it has been doing architecture for centuries. Architecture was the unconscious of psychiatry. Building production simply happened as part of seemingly spontaneous actions. Innovation was always kept within the limits of the assignment and other unwritten rules. Today, Saint Josef is
the symptom of an innovation process that – as Liza Fior (2014) calls it in the practice of MUF – ‘expanded the brief’ totally. First, the service oriented commission for a masterplan was turned into the development of general knowledge about care architecture, second the ongoing demolition process was turned into building something that was not even part of the brief. The process also turned the role of the architect upside-down by including him/her in what has been called the ‘collective subject’ of architecture, in this case composed by psychiatrists, managers, staff and patients (Petrescu, 2005). The role of the architect was important certainly, but so was the manager, the psychiatrists, staff and patients, not forgetting honorable members of the Board – each playing subversive roles at crucial moments. I remember a casual meeting with the (now former) head psychiatrist somewhere at steps leading to the side door of the administrative building. It was in the middle of the process, around Summer 2015. After exchanging polite greetings, I fell victim to archaic architectural neurosis and complained to him that after one year of hard work no change was visible on site. The head psychiatrist answered dramatically: ‘Hey, look around! Nothing has been built in one year time, but still everything in Caritas is looking so different today – everybody is discussing architecture and everybody is dreaming loud about the psychiatric centre of the future.’

Acknowledgements

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Images

Figure 1
Kanonnik Petrus Jozef Triest Plein after realisation, Summer 2016 © Filip Dujardin
Figure 2
Kanunnik Petrus Jozef Triest Plein after realisation, Summer 2016 © Filip Dujardin

Figure 3
Workshop with psychiatrists, management, staff and patients, Autumn 2014

Figure 4
Saint Josef Building under demolition, Winter 2014 © Stijn Bollaert
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The Public Participation in Territorial Management

A Construction of Citizenship

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Abstract. This research deals with the active public participation, whose objective is your evaluation in territorial management instruments, using as studies of case the old centers of some Portuguese Algarve cities. The experimental method was based on the quantitative and qualitative analysis of the public discussion about the revision of the Municipal Master Plans and the Urban Rehabilitation Operations. The results showed that participation in quantitative terms is residual and, when it occurs, refers to the resolution of individual interests. In the verification of the results, semi-structured interviews were conducted with political and technical leaders of the Public Administration and citizens. The content of the interviews varied per the social group, but, in general, it was related to the lack of participatory tradition; individualism; Feeling of not value the public opinion; Fear of retaliation; Hermetic technical language and distrust of politicians. To prove or refute was analyzed the emergence of public participation in Portuguese legislation the use of participatory budgets and the results of municipal elections. The conclusions suggest that, faced with the depletion of the model of representative western neoliberal democracy, it is urgent to find alternative paths through associative reinforcement, where universities can play an important role.

Keywords. Citizenship; territorial management; participatory budgeting; public participation.

Introduction

In a global context of political fragility in which neoliberal democracies are not sufficiently representative of human societies, the idea of "urban governance" emerged at the United Nations Conference - ECO 92 and corroborated in the World Agenda 2030, linked to the concept of sustainable urban development; plays an important role, but it is not enough to guarantee the right to full citizenship, that is, everyone's right to use and enjoy the city in the words of Henri Lefebvre (2008). The main reason seems to be that "governance" in the sense of "efficient, transparent and participated government" is always optional (inherent in the government and/ or political leader in question) and implies a top-down public participation.

On the other hand, in today's societies in a globalized world, the need to reinforce "urban competitiveness" and the presence of new "urban influencers" due to territorial marketing, "sale of cities" as a cultural commodity (Vaz, 2004). Old centers full of cultural identity become "increasingly desirable consumer goods," provoking, as a rule, gentrification.

The solution could be the relationship between information and participation, as established in Principle 10 of the Rio Declaration on Environment and Development, adopted at the 1992 United Nations Conference - "States should facilitate and stimulate public awareness and participation."- and that was already contemplated in article 109 of the Portuguese Constitution since its creation in 1976 (after the revolution of the gillyflower).

It should be noted that our Constitution provides in Article 2 for the need to deepen "participatory democracy".

However, despite recent legislative changes that require a more active public participation in urban planning, Portugal continues to have residual results and no
real impact on the design of territorial public policies and the elaboration of territorial management instruments.

Per Ferrer (2012), the citizen rights in urban planning, which should be linked to the very concept of citizen (regardless of ownership), are based on transparency in the administration, information and participation of citizens (national or local referendum) and in the active publicity of the Public Administration.

Definitions and Concepts

Public Participation

Per the literature on the subject there are different types and definitions of active and passive participation.

Per the Organization for Economic Co-operation and Development (OECD) participation is considered active when “citizens are actively involved in decision-making and policy-making. Active participation means that citizens themselves play a role in formulating policies, for example when proposing policy options. At the same time, the responsibility for policymaking and the final decision lies with the government. Engaging citizens in policymaking is an advanced bidirectional relationship between government and citizens based on the partnership principle” (OCDE, 2002).

However, per other authors, real active participation implies the empowerment of civil society, that is, “assumes a dynamic interaction between all external and internal participants, or technicians and community, at every stage of the process, from the early stages of defining strategies to making decisions. In this type of participation communication and dialogue between the participants is promoted in the form of conversations, open meetings as well as collective work sessions, facilitating a result that is more in keeping with local objectives and with the empowerment of communities” (Vasconcelos, 2007).

In these terms, what the OECD calls «active participation» would be more appropriate to define as "semi-active participation", because it refers to participation processes where public opinion, when evaluated, is only adopted, if considered relevant by the Public Administration.

On the other hand, it will be passive if it is “associated with actions of information and consultation of the populations, generally associated with the final phase of the processes, after the structuring decisions have been made by technicians and politicians. These cases refer to public hearings where the participants can be heard, to obtain information and to clarify doubts about the process under discussion, but in reality, does not participate in the decisions” (Raposo et all, IN PRESS).

The Portuguese legislation on territorial management instruments, prior to Decree-Law 380/99 of 22 September (which established the Legal Regime of Territorial Management Instruments), was based on the logic of civic duties and civic droit, based on the in the four types of links between the Public Administration and citizens, per Table 1, so that public participation has always been relative to the passive format.
The duty of publicity

The citizen has the duty to participate in public inquiries requested by the Public Administration

The citizen has the right to request information and clarify doubts

The Citizen has the right to speak in the forums provided for in democratic regimes

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Table 1

Types of Public Participation

The publication of Decree-Law 380/99 presents evaluation as one of the basic pillars of public participation, moving to a model that advocates semi-active participation, based on information, participation and evaluation. Currently, the publication of Decree-Law 80/2015 further strengthens public participation.

In the current model the participation goes through 3 phases. In the first phase, the Autarchy has the duty to disclose all the Information related to the Territorial Management Instruments through Social Communication, Collaborative Territorial Management Platform and Internet Site.

In the second phase, citizens have the right to make suggestions, observations or complaints and/or ask for clarifications (at the beginning, during and at the end of the procedure), make proposals to draw up planning contracts with the Municipality and intervene in the public discussion periods.

In the third step, municipalities have a duty to evaluate contributions and respond to citizens in writing or in person.

Question of research

What is the quantity and quality of public participation in management tools relating to the old areas of the case studies?

The methodology was based on the quantitative and qualitative analysis of the participations, within the scope of the ongoing public discussion, inherent to the revision of the Municipal Master Plan and the public hearing on the definition of Urban Rehabilitation Operations, within the scope of Delimitation of Urban Rehabilitation Areas.

In a first phase, a quantitative survey was carried out in the three case studies (collected through personal contact with the technical managers), followed by documentary analysis and systematization of the content of the participations delivered, interconnecting them with the population.

In a second phase, semi-structured interviews were conducted for convenience to key process actors, namely political and technical leaders, public administration technicians and more enlightened civil society members residing in the municipalities under study.

The case studies

Portimão, Loulé and Faro

The case studies are three Algarve municipalities - Portimão, Loulé and Faro - covering practically the entire territory, one in the Barlavento, the other in the Sotavento and one in the central zone, per Figure 1, all of which are in the Municipal Master Plan review process, as well as Areas of Urban Rehabilitation delimited in its old urban zones. In terms of population and surface area, these are medium-sized cities on the Portuguese scale, with a population varying from 55 to 70 thousand people.

The selection of the case studies was based on several criteria, but above all diversity was sought. In relation to the theme discussed here - public participation - the following are identified:
• The political situation is different. Faro - the capital of the District - is the most cosmopolitan municipality and has promoted political alternation with great vigor - changed eight times in the 11 electoral cycles since the fall of the dictatorship; while Portimão (like São Brás de Alportel) has maintained the same party since the earliest days. On the other hand, Loulé presents a very balanced electoral behavior with 5 changes, but in general maintains 3 government cycles before promoting the change.

• Another criterion under consideration was the existence of a participatory budget. Loulé is entering the fourth year in a row, Portimão had a lawsuit in 2012 that should have had effects on the Municipal Budget in 2013, but this did not happen and Faro has not, and never had, any participatory budgeting process.

• The geographic location was also a relevant factor not only by the East / West location, but above all because the ancient nuclei are located differently - inland or on the coast. In the case of Faro and Portimão are on the coast with much tourist pressure, while Loulé more interior, is located closer to the barrocal.

Figure 1
The geographic location of case studies

Results

The results, per Table 2, showed the low or almost non-existent participation in quantitative terms, where the highest value refers to Loulé, in the public hearing of the Municipal Master Plan with a percentage of about 1.4% of the population of the Municipality and the lowest rate is in Faro, under the Urban Rehabilitation Operation of the zone within the walls, where there was no participation.
Concerning the participation in the Urban Rehabilitation Operations because they are so small they do not seem to us to be worthy of note. However, those that refer to the Municipal Master Plan, despite being reduced in terms of percentage amount, varying from 0.005% to 1.4%, have a sufficient number to elaborate a study in qualitative terms.

During interviews to obtain such data, we were informed by the technicians that the overwhelming majority of participations were related to individuals’ individual interests because they referred to the request for clarification or the suggestion that their lands, generally in rural areas, be requalified for land with the possibility of urbanization.

In the qualitative investigation of the participations and by time savings, we detained ourselves in the study of the Municipality of Portimão.

As we can see in Figure 2, the large majority of the participations are in rural land, outside areas aptitude for urbanization per the current Municipal Master Plan.

Regarding the content of the 245 participations, we promoted a critical analysis and systematization based on the following criteria, whose conclusions are presented in Table 3:

- the reference period (whether in the first or second phase because, due to the economic crisis and the profound change in the legislative framework, practically all the Municipal Master Plan review processes have stopped);
- quality of the participant - citizen (individually or jointly with others), promoter, civil society association or public institution;
- content of the claim: reclassification to urban land, specific project, request for information or contribution to the public good.
Requalification for urban land

Table 3
Qualitative analysis of public participation in Portimão

As shown in Table 3, only two participations in the amount of 245 are truly contributions to the collective construction of the territorial strategy, or 0.8% of the participations carried out under the terms of the law.

The analysis of quantitative and qualitative results led us to the need to understand the reasons for these results. To this end, semi-structured interviews were conducted with political and technical leaders, technicians from the Public Administration and members of the most enlightened civil society residing in the municipalities under study.

The content of the interviews varied according to the social group to which they belonged, but in general the political and technical leaders justified the low participation due to the lack of tradition and the prevailing individualism in the present societies, whereas the most common layers of the social spectrum - technicians the Public Administration and members of civil society - consider that the reasons are due to the feeling that the opinion of the citizen is not taken into account, fear of retaliation by political and technical leaders, hermetic technical language for non-technical people or even for technicians which do not work directly with urban planning, and also the distrust of political representatives, which leads to an increasing distance of citizens.

Discussion of results

Based on the opinion surveys we look for empirical evidences that prove or refute the mentioned causes, for that we use three different fields of analysis, specifically:

- Historical-evolutionary analysis of the Portuguese territorial legislation, with special incidence in the moments in which the act of public participation is predicted, correlating it with the historical-economic context of the world, Europe and Portugal;
- Verification of the possible use of mechanisms of participatory democracy, such as participatory budgets, in the Algarve (evaluating both participatory intensity, format and temporal application);
- Analysis of the changes resulting from the municipal elections in the Algarve in the contextual relationship with the historical-political moments of the country and the municipality.

About the historical-evolutionary analysis of the Portuguese territorial legislation, it was tried to articulate the different legal systems that intertwine - land policy, legal regime of territorial management instruments, legal regime of urbanization and construction and legal regime of rehabilitation urban subdivided into three dominant phases.

The first phase of 1965 to 1991, where participation occurred in passive or semi-active mode, per the typologies described in Table 1 and presented here in Table 4.
The duty of publicity

The duty of participation

The droit of information

The droit of participation

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**Table 4**

*Insertion of the first phase of the Planning in the types of Public Participation*

It is important to point out that the first law to provide for the Right to Participation was of 1970, referring to the licensing of private works. In articulation with the political-historical context, in that year Salazar died, being already away since 1968, being the country to be governed by Marcelo Caetano. In that same year, the Council of the European Economic Community decided to reform the European Social Fund to provide the Community with an appropriate instrument to ensure a correlation between social policy and other Community policies.

The second historical-evolutionary phase of the Portuguese territorial legislation is between 1991 and 2012, and is a fruitful period in terms of legislation, as new legal systems - territorial management instruments and urban rehabilitation instruments - have been created in addition to being unified in a single Law the operations of urban development of private individuals - urbanization and construction.

In this second historical-evolutionary phase there are three decisive moments - 1999/2001 and 2009 - 1999 because this year the legal regimes of urbanization and construction are published, unifying the dispersed legislation on subdivisions and buildings, although by the revolutionary content of the changes must be slowly assimilated by the local government and the public administration before being applied, a situation that only occurred in 2001. In turn, 2009 arises with the great novelty of the legal regime of urban re-opening to frame legally the actions that were already being carried out by public companies, called Urban Rehabilitation Societies, created by the 2004 law (Decree-Law 104/2004) replacing the Public Administration by delegation of competences.

The third historical-evolutionary phase of Portuguese territorial legislation, falls between 2012 and 2015, constituting a very fragile period with critical public finances. The year 2014 was characterized as the year of the troika's departure, the detention of a former prime minister and the fall of Bank Espírito Santo. The European Commission presents its first report on the fight against corruption, which describes the situation in each Member State, and decides to adopt the most ambitious climate objectives in the world.

In legislative terms, a new package emerges with the new Law on Public Policy, Spatial Planning and Urbanism (Law 31/2014), which repealed the previous Law (Law 48/98, amended by Law 54/2007), bringing many new features, between them, maintaining the status of rural land, which can only be changed by plans of greater detail. The Execution is assured (because if the urbanization works are not executed reverts to the Municipality). In addition, urban rehabilitation, as an economic activity, replaces the construction industry, and is reinforced by the publication of diplomas with exceptions and simplification schemes (Decree-Law 53/2014).

Regarding the participation in the legislative review (Decree-Law 80/2015), it emphasizes the active participation, determining the reasoned evaluation and the use of the Collaborative Platform for Territorial Management.

However, strangely for the urban rehabilitation activity, currently a priority in public policies (DL 307/2009, as amended by Law 32/2012), there is no provision for active public participation, despite the delimitation of the Urban Rehabilitation...
Area to establish the right of first refusal and to make private individuals subject to the envisaged implementing instruments. The public participation is only foreseen in the final phase of the approval of Urban Rehabilitation Operations.

In summary, about the alleged lack of Portuguese tradition in public participation, it seems to us that this review of the legislative period shows that in legal terms this figure emerges before the end of the dictatorship (1970) and goes through the subsequent diplomas to date. In addition, it is part of our Constitution, since its genesis in 1976.

To evaluate whether it is individualism or the feeling that the opinion of the citizen is not considered that the Algarve do not participate in the discussion of territorial management instruments, it is important to analyze their participation in other participation mechanisms, such as participatory budgets.

Participatory budgeting, a mechanism par excellence of participatory democracy, appears for the first time in the Municipality of Porto Alegre/Brazil in 1989, following the democratization of the Brazilian Constitution of 1988.

The transfer of this mechanism to Europe occurs in 2001, linked to structural or macro-social aspects that lead Europe to change (Sintomer and Ganuza, 2011) more specifically, administrative modernization, affirmation of neoliberal logics, crisis of the legitimacy of the political system and reform of local governments.

In the Portuguese case, it appears for the first time in Palmela in 2002 and from there examples are emerging all over the country. In the Algarve, it appears in 2005 in the Municipality of Vila Real de Santo António and the "contamination" occurs timidly until the last electoral cycle, per Figure 3, probably fruit of the crisis of political legitimacy. It should be recalled that the abstention rate in the last municipal elections in the Algarve was the highest ever, making up almost 60% of the population (Figure 4). Now of the 16 municipalities only 2 (Monchique and Castro Marim) have never experienced these processes.

![Figure 3](image1.png)

Incidence of the Participatory Budget by year and by Municipality

![Figure 4](image2.png)

Percentage of voters in each electoral cycle in the Algarve
An analysis of the participatory budgets cycle in the Algarve (Figure 5) based on incidence, absence and permanence has a spectrum that allows us to verify that there are 3 peaks, one with some vigor in 2006/2007 (propagation of experiments tested in Portugal), a more punctual in 2010 (the eve of local elections) and a sharp one in 2015.

![Participatory Budgets in the Algarve](image)

Figure 5
Incidence and intensity of participatory budgets in the Algarve per year

About the public participation of Municipalities that have maintained a continuous course in the last period of governance (2013-2017) and that publicize quantitatively the number of votes show that there is coherence of the increase or decrease in the percentage of votes, which is usually linked to the Fulfillment of the commitments assumed, which as a rule is the consolidation in the budget of the following year of the projects chosen by the population and consequent execution.

It is important to note that Loulé, one of our case studies in the evaluation of the participation in territorial management instruments, which had a 1.42% participation in the previous hearing for the Municipal Master Plan review, in the case of the participatory budgets began participation in 1. Year with 0.66% of participation and in the 3rd year already makes up 8.5% of the municipality population, unlike the other processes that lose the electorate in about 50% from year to year.

Conclusions

From the discussion that has been held up to this point, it seems to us that the issues of lack of participatory tradition and individualism as the cause of the low participation in the discussion of territorial management instruments can be ignored. On the other hand, the veracity of the general distrust of political representatives and non-participation based on the feeling that the opinion of the citizen is not considered also seems assured to us.

However, to resolve the two other issues raised - fear of retaliation by political and technical leaders and hermetic technical language - we will still need to proceed with other methods of analysis.

As a conclusion, we resorted to Boaventura Sousa Santos (Dias, 2008) when he affirms that capitalist liberal democracies suffer from two pathologies - of representation and participation - and that the exit to this impasse, reducing abstention, goes through the combination of representative democracy with Participatory democracy.

To this end, the empowerment of civil society seems to be paramount, where universities can and should play a leading role in helping to strengthen local associations through:
• Construction of 3D interactive platforms explaining the content of territorial management tools, preferably interactive;
• Training of key citizenship actors, through communication plans and thematic workshops in partnership with civil society organizations;
• Formation of partnerships following the three steps - diagnose, group and train - per accountability and innovation techniques.

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Civic Crowdfunding and the Negotiation of New Urban Public Spaces
Stories of Citizen-led Micro-regeneration from London and Milan

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Abstract. This paper draws on qualitative research, carried out in London and Milan, to investigate the growing phenomena of civic crowdfunding projects.
This approach is framed by interdisciplinary debates around governance and collaborative, community-led initiatives aiming at making cities more inclusive and sustainable. In particular, this work draws on discourses around actor-network theory, diverse economies and spatial agency, to focus on the negotiation of new and alternative networks of urban governance (both off-line and on-line), and on to what extent these can be seen as socially innovative. In this context the paper discusses how technologies can be employed to empower citizens in envisioning, designing and shaping the future of the city through local, bottom up and innovative initiatives like civic crowdfunding, but also what is the role of Local Government in fostering the emergence of and supporting such initiatives. By exploring innovative practices emerging in a highly formal planning system, this paper discusses the potential role of self-organised groups in producing alternative views of the city, against or within dominant urban development practices.

Keywords: Civic Crowdfunding; ANT; Bottom Up; Citizen Engagement; Social Innovation; Regeneration; Public Space.

Introduction

The making of future cities involves the challenging of existing models of urban development whilst promoting alternative processes, practices and digital technologies to make urban areas more socially sustainable and liveable, and more environmentally resilient. However, who takes part in defining/designing the cities of the future? What roles do citizens play? How can their imagination, enthusiasm and energy be mobilized for new modes of collaborative city-making? And, crucially, how can public assets be used to support such initiatives in a way that is effective and fair?

This paper draws on qualitative research, carried out in London and Milan, to investigate the growing phenomena of civic crowdfunding projects in the making of future cities. It is structured in five sections. In the first, we explore the origins of civic crowdfunding and the role of digital platforms at enabling citizens at promoting and/or supporting civic initiatives. In the second we discuss the conceptual frames of the paper by using actor-network theory and diverse economies. We then explore a range of case studies in London and Milan as a starting point for a discussion on understanding civic crowdfunding projects, drawing our conclusions in the fifth and final section.

Civic Crowdfunding: a brief history

Crowdfunding is a model of financing projects generally through contributions from large groups of individuals and organisations, the crowd (Bellflamme et al, 2013;
NESTA, 2013) to support a wide range of projects. Crowd funders offer financial support to projects that they feel an affiliation with or that offer desirable returns. Projects can range from museums to commissioning artwork to supporting new technology applied to smart clothing, connecting communities through food and producing movies.

By supporting a great variety of goals like spatial interventions, community and artistic activities and small start-up businesses, fundraising through crowdfunding has also found application in the built environment, often with a particular ‘civic’ angle. ‘Civic’ crowdfunding, as a sub-type of crowdfunding, shares its donation-based fundraising model, but has distinctly civic aims. Whilst Davies frames civic crowdfunding as aim to fund public assets without rewards in return (Davies, 2014), in this paper we adopt a broader definition of civic as benefitting the broader community, often within specific localities.

Raising funds from citizens to support civic, urban-regeneration projects, however, is not a new mechanism. Practices of public fundraising for civic projects, either through bonds or donations, have a long history. For instance funding for a fitting pedestal for Statue of Liberty was raised through a newspaper based donation campaign (Davies, 2013) while the University of Sheffield was founded by penny donations from factory workers; more recently, the High Line park in New York was brought to life via a combination of public funding and philanthropic donations. The key innovation of civic crowdfunding is in the recently developed digital dimension of the platforms, which increases the potential and enhances communication to raise funds from relevant communities, local and trans-local. The use of digital platforms, such as, for instance, the UK based Space Hive, the Italian PlanBee or Eppela, and the Dutch Voor je Buurt allows citizens, who have an internet connection, to become either funders on projects of interests (e.g. a local park or a new high street market) or promoters of new initiatives, either way, proactively getting involved in changing their local environment.

Through the mechanisms of civic crowdfunding, citizens, acting as initiators, can in fact proactively design a project proposal, publish it on an online platform, attract supporters (funders), reach the funding target and develop the project (Bellflamme et al, 2013). Although projects can vary in scale and type of financial support received – from a large number of people giving small donations to a small number of supporters giving larger donations – in general they tend to be locally-driven, capturing the imagination, enthusiasm and energy of local people and contributing to local changes that go beyond the boundaries of the actual physical changes. By concentrating efforts on specific outputs, civic crowdfunding projects have the ability to encourage community building and bottom up placemaking, and the possibility of creating new forms of public participation and governance through citizen-led actions.

Digital platforms can be considered as enablers, a sort of online noticeboard (NESTA, 2013) in the way people can advertise new projects and involve local communities. Whilst digital communication is a key aspect of civic crowdfunding projects, substantially increasing their reach and, as a consequence, their viability, many successful projects combine online with offline activities, using digital and situated, spatial modes of interaction to cater for diverse audiences or to complement different activities. The offline element of crowdfunding projects is as crucially important as the online: it consolidates online relationships, includes social groups who might feel uncomfortable with digital medial, and has the potential of creating long lasting relationships which can go beyond the scope of the project.

Crowdfunding through the Lens of Actor-Network Theory

In this section we want to set out civic crowdfunding projects as part of a shifting set of actor-networks, as initially described by Bruno Latour in his outline of actor-
network theory (ANT) (Latour, 1993). As a number of researchers have pointed out, despite its name ANT is perhaps not so much a theory, but a methodology or a means of conceptualising and describing the different elements of agency that make up social phenomena (Law, 2009).

In the context of our research on civic crowdfunding, using an ANT perspective allows us to draw out three particular characteristics of crowdfunding projects. These are: (a) their socially horizontal organisation (both online and offline), (b) their flexibility and (c) the underlying constellations of the symbolic and the material. In particular, the first two seem to constitute civic crowdfunding as an exciting, potentially inclusive and more dynamic alternative to more traditional means of participation. At the same time however, they also make crowdfunding projects harder to describe as well as to organise or even control.

With regard to the first of these characteristics (socially horizontal organisation), ANT develops a topographically – rather than vertically - organised model of social and material relations. It emphasises the way in which social practices, connections, processes of inclusion and exclusion and instances of power are not simply the effect of social structures and hierarchies, but are complexly inscribed, negotiated and shaped through different networks that operate through both micro and macro settings. As Latour states: “it [an actor-network] has no a priori order relation; it is not tied to the axiological myth of a top and of a bottom of society; it makes absolutely no assumption whether a specific locus is macro- or micro-” (1993: 373). Similarly, civic crowdfunding projects have no evident hierarchies or pre-inscribed structures. They link ideas and people and crowds, resources and spaces through malleable networks and shifting connections. Despite their topographical arrangement, these networks are not always inclusive and certain elements (people, spaces, organisations etc.) may form more or less powerful or more or less successful connections than others. In order to understand these connections we need to look beyond common notions of social organisation and power and investigate how, often at the micro-level, networks and connections are formed, shaped and re-shaped.

The second characteristic – flexibility – is of course at the very heart of the appeal of civic crowdfunding. The fact that crowdfunding projects are not rigid or formal structures but are shaped and reshaped through the input of individuals, crowds, groups or organisation, means that they have the potential that allow for the spontaneity that often characterises level participation and activism, as well as the specificity of locality. At the same time the dynamic and shifting nature of crowdfunding makes them hard to describe and theorise. Concepts such as community, interest group or neighbourhood, to the extent that they still try to describe social sub-sets or sub-structures, seem inadequate to capture the changing social connections through which civic crowdfunding projects operate. However, as Sheehan and Vadjunec clarify, in ANT “social structures such as communities do not exist as ‘things’ or ‘glue’”, rather “the social is assembled by ever-changing relations and associations between heterogeneous elements” (2012: 919). On this understanding social phenomena cannot be easily captured by referring to a more-or-less stable structure. They are messy, inchoate and always developing. At the same time, however, the flexible landscape of networks is also characterised by moments of stabilisation and entrenchment, which Sheehan and Vadjunec identify as instances of community (Sheehan and Vadjunec 2012, see also Holifield). It is these moments of stabilisation, that often contribute to the success of crowdfunding projects, and finding out how they develop is one of the challenges of our research.

Third, one of the more intriguing aspects of ANT is that the elements of agency (actants) in a given actor-network are not necessarily human or indeed social, but combine the human and the non-human, materials, ideas, meanings or even emotions (Sheehan, 2011). As we will see the crowdfunding projects we describe below are very much assembled as a set of simultaneously meaningful and material relationships between people and identities, material objects and built spaces, images
of community, emotional attachments and social concepts, social practices and ideals of collaboration.

Intended as a theoretical backdrop these three features (topography, flexibility & material/immaterial assemblages), of course do not exhaust analyses of civic crowdfunding projects. They do, however provide a starting point to give shape to how we might begin to theorise their social shape and on the basis of which we might begin to understand the way in which they might or might not be helpful in developing citizen-led approaches to regeneration.

**Political Economies of Civic Crowdfunding**

Another starting point in understanding and categorising civic crowdfunding projects is to look into their political economies. Situated within a spectrum of initiatives trying to reconfigure citizen involvement in local state/planning - from participatory budgeting to fora for citizen planning - civic crowdfunding makes use of digital platforms to raise money and fund assets and services for the public, sometimes with support from Local Government. Many of these projects explicitly frame themselves as alternatives to neoliberal modes of production of the city, putting forward their collective endeavour as a pragmatic, viable, alternative.

This broadly citizen led nature of crowdfunding and the fact that, through backing, a mandate is given to projects, has been read as a mechanism for strengthening non-parliamentary democratic structures and practices, crucial for civic integration (Hollow, 2013). From a political economy perspective, however, crowdfunding as also been framed as a form of platform capitalism (Langley, 2016). Criticisms to crowdfunding refer to the challenge of its suitability as replacement of public services, to the fact that, through narratives of project success, it regularly masks unpaid labour associated to projects and that it monetises networks of social relations (Ridgway, 2014). Gibson-Graham’s conceptualisation of diverse economies (Gibson-Graham, 2008) and their intentionally ‘weak’, loose, theory might offer a fruitful lens for looking at the spectrum of civic crowdfunding projects, describing them in terms of enterprise, labour, property, transactions and finance and on whether they are considered capitalist, alternative capitalist or non-capitalist. This could offer a framework for articulating specific characteristics of crowdfunding projects in relation to economic understandings.

Some civic crowdfunding projects could also be described as what Pickerill and Chatterton (2006) call ‘autonomous geographies’, spaces produced through a blend of resistance and creation, fuelled by a desire to explore non-capitalist models of citizenship.

**Stories of micro-regeneration from London and Milano**

Do civic crowdfunding and digital platforms offer a new start for alternative models of urban regeneration in European cities? Current understanding of urban regeneration evades easy definitions and rather holds several ambiguities in relation to scope, approaches, actors and goals. Policies and practices vary sensibly across different European regions. In the UK and in Italy, albeit with differences, they have been traditionally top down (Imrie et al, 2009; Evans and Jones, 2013). Crowdfunding projects, by promoting bottom-up processes and encouraging new forms of partnerships, raise questions for dominant processes of ‘urban regeneration’ that are harnessed to achieve goals of economic growth and infrastructural developments, driven by political agendas, and often controversial residential developments glossed as regeneration.

What kind of urban changes count as regeneration? What implications have hundreds or thousands of civic crowdfunding in re-defining urban regeneration practices?
This section focuses on two projects in London which made use of the digital platform **Spacehive** to raise funds to implement innovative ideas: ‘The Peckham Coal Line’, a proposal to transform an old railway line in South London into an urban park; and ‘Global Garden, Global Kitchen’, a proposal to transform unused space in Tottenham, North London, into a new community food garden and kitchen where local people can learn to grow and cook a mix of produce.

**Spacehive** is a UK civic platform that supports projects that provide services to communities. A quick review of current projects listed on this digital platform reveals a great variety of projects. They vary in terms of dimension, financial target they aim for, pledge size, and promoters.

**Peckham Coal Line**

The ‘Peckham Coal Line’ project is one such London-based project. It is a vision of an elevated and 1 km long park, designed to run on disused railway coal sidings and to generate a green link between the two high streets in Queen’s Road Peckham and Peckham Rye. At a local level, this project has already attracted funds from over nine hundred people, going well beyond the financial target, but most of all lots of enthusiasm, large local participation and the development of a community shared vision for the area. Backed by the Mayor’s funds, at an urban scale this project has the potential to generate new urban governance relationships, where Network Rail (the UK Railway line authority) and the London Borough of Southwark will team up with the Peckham Coal Line group in delivering the community vision, and to connect with other green networks, contributing to the transformation of urban spaces at a wider scale.

The Peckham Coal-line project is in many ways a successful project, not only has it attracted wide-scale publicity and official support but it also involved different local organisations and caught the imagination of local residents. Every crowdfunding project has a particular dynamic. There are two notable aspects about the Peckham Coal-line project, and its success in is in part a result of these aspects. The first, was the way the project managed to connect different groups and individuals around what we might call ‘a shared vision’ of the park. This vision had emerged slowly and was in many ways not definitive, and was open to further development. It nevertheless became a nodal point around which shifting networks of actors, organisations, ideas and resources clustered. The second characteristic, that contributed to the Peckham Coal-line’s success was the fact that despite the topographical, non-hierarchical organisation of the project, it managed to key into powerful networks which gave the project both real resources and symbolic credibility.

Like other civic crowdfunding projects, the Peckham Coal Line project developed slowly, inadvertently and organically. Starting with an idea, almost haphazardly finding connections and gathering momentum only later on. The project started out as an undergraduate architecture project, which was deemed too ambitious in many ways. However, both the originator of the idea and his partner had a long connection to Peckham and it was through their own experience and the experience of others in the area, that the idea began to take on a more definitive shape: *but because we’ve lived here - I’ve lived here 12 years, he’s lived here 8 years - we know lots of people – we started to talk to lots of others about the ideas* (Interview Peckham Coal Line 2016)

In the first instance we can note here is of course the importance of local skills. These were not planned for in advance but where mobilised flexibly around the project and the idea as it developed. Secondly a theme of ‘connections’, stands out as a recurrent feature in this project. The idea of the park took shape through local connections, people discovering and talking about a piece of land and about ideas of
what can be done with it. Moreover, the project itself is also about creating connections physically, socially and symbolically. Currently the disused area around the coal-line acts as a barrier for many residents who are prevented from accessing certain areas or forced to take round-about routes.

As well as the ambition to provide physical connections in the local area and to join wider cycle networks across the capital, however, the project was also a symbolic connector. Significantly the sketches and plans produced as part of the development of the project were not intended as definitive ideas, but only to ‘add flavour’ or ‘to help people visualize’ what the park might look like. As one of the organisers explained: “We still need to explore what everyone wants it to be.” Indeed, in a way the project started more as a question, rather than a plan or a statement: “a provocation – what if there was a park here” (Interview Peckham Coal Line 2016).

The focal point of the project - of the network of supporters and organisations - combines both the material and the symbolic: a material space, real spatial practices and a relatively open idea of a park and of creating connections. Indeed, at the moment, despite the tangibility of the space this project concerns there is still a chance that the project might not be realizable. Despite the huge support, the current funding is only for feasibility study. Interestingly though for the organisers this does not matter as much as it might seem. The project has already been successful in the sense that it has become a platform for people to connect and to meet, to create what we might call a temporary stability in the always shifting social connections and relationships: ‘It’s a platform for people to connect. Creating connections without physical connections. […] We don’t really know each other – we just came together around shared vision – which is very powerful’ (Interview, Peckham Coal Line, 2016).

Creating a shared vision that was not definitive but intelligible, gave ideas but left room for the imagination, and one that that responded to local practices and experiences was one of the keys to the success of the Peckham Coal Line project. Crucially this vision was communicated through a variety of means, both online and offline – combining social media channels, community meetings, workshops and face-to-face outreach work (often involving cupcakes). These different forms of communication created central magnet around which a networks of people, groups and local organisations could assemble and become entrenched in.

The second element that was clearly a contributor to the project’s success was its local grounding, its topographical and flexible organisation and the fact it linked into powerful networks that enabled publicity and resources. The social network around the project again evolved slowly and relatively organically. Support was very much grown bottom-up. After the project had garnered support on Spacehive (both financially and through active offers of support received via emails), the organisers invited interested parties to a series of workshops and involvement and participation grew from there. Additionally, they reached out to and gained the support of local groups (e.g. a local nature reserve and a homeless shelter located near the Coal Line). As one of the organisers very nicely put it: “We made a point of talking to people playing in the space already.” Gaining the support of local residents as well as those that are already actively involved in making and shaping the surrounding gave the project local legitimacy and a sense of collective ownership.

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1 Interestingly in this context, one of the representatives we spoke to described crowdfunding as “not simply as a method for raising money, but as a communications campaign”.

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Global Garden, Global Kitchen

The ‘Global Garden, Global Kitchen’ project is located in Haringey, north London, an area with multi-cultural communities. Global Garden is a community food hub and, as it happened in the case of Peckham, it started with an idea.

The originator of this initiative, Dexter, after re-training for a year as urban gardener, decided to find some local, unused land, start growing organic vegetables, fruit and herbs and distribute it at affordable prices. The aim of Global Garden was in fact to reconnect and re-educate communities regarding healthy eating by offering alternatives to poor, fast food habits (‘Lots of obesity…You can still keep healthy on a budget’). As per the other project, his ideas started growing organically by spotting a vacant land near a local school ground in Haringey, which ended up becoming the location of Global Garden. ‘It was a walk way, where people walk through, a public walk way’. After a not very successful approach with the school (‘I did not like their attitude’), he contacted the Selby Trust, a charity located near the school and where he used to volunteer as youth worker. Selby Trust, which acts as an umbrella to many community organisations, granted him permission to use the land for his project: ‘I did not know them [the management]…I approached the management, she sat down with me, I explained where I was coming from and what I wanted to do and she said ok, go ahead’. The management of the charity gave him confidence in his own ideas (‘There is lots of potential…let’s try it’) and employed him as the project manager.

Dexter’s vision was that of creating an inclusive space where people with very different cultural background could volunteer and grow fruits and vegetables using raised beds, learn new skills and contribute to local healthy life styles. Very coherently, the project fitted in the ethos of the charity: ‘Many cultures, one community’ who became the major partner in this initiative. Differently from the Peckham project, Global Garden did not reach out for other partners like for example the local council, but rather focused on engaging with the different, diverse local communities and on generating a long lasting impact on people’s lifestyles.

At the end of 2012, Selby Trust decided to use the platform of Spacehive to raise funds to support this initiative (2013). The project exceeded the target and benefitted of matching funds from Experian Charity Trust. At that time, this charity, which supports small organisations that aim to make a difference, was offering matching funds on Spacehive exactly like the GLA.

As already pointed out, social media like Facebook and Twitter are an important dimension of the online crowdfunding campaign, at reaching out local communities, involving them and getting their support. However, as Dexter admitted: ‘I am not a social medial person: I am a gardener!’ A great, well-timed help to the fund raising campaign came from the BBC program ‘London Inside out’ (date), which interviewed Dexter and broadcasted him on TV promoting his initiative. This helped him connecting offline with local communities: ‘Many people saying… I saw you on TV and I said when? On BBC. So I had to go and look at it’.

Dexter has a very clear vision for the future of the site. He aims to expand his project even more by creating a roof top garden with beehives, by setting up a farmers market, by using part of the local crop to feed into the Trust’s local kitchen, where local communities (‘The Turkish, the Caribbeans, the Greeks…’) can come and share what and how they cook.

Global Garden is not just an allotment. It made use of vacant land, it aimed to generate connection with the local context, its diverse, low income communities and their needs, and to promote education. Although Dexter raised concerns about the future of the garden in terms of making sure the project will keep running and the council will carry on granting the use of the land, what clearly emerge is the replicability of such project: to some extent, and without undermining its amazing value, its ordinary dimension, rather than unconventional like the Peckham one, and therefore its feasibility.
**Civic Crowdfunding and the role of Milan Municipality**

Civic crowdfunding started to develop in Italy in the last few years through the emergence of both dedicated platforms and the inclusion of civic crowdfunding projects within general crowdfunding platforms. Since their start, crowdfunding platforms in Italy collected in total around 92 Million Euros (24.7 in reward and donation; 7.5 in equity; 56 in lending; 3.3 in Do It Yourself) (Starteed, 2017). The civic crowdfunding projects belong, as a general rule, to the Reward and Donation model, and in fact it is within this group that we find both platforms specifically dedicated to different civic issues (PlanBee, SchoolRasing), or general platforms quite active also in the civic domain (such as Eppela, who cooperates with the Milan Municipality). There are also platforms with a specific and exclusively regional focus, such as Idea Ginger, in the Emilia Romagna Region, which works to strengthen area-based networks rooted in the region.

There are civic crowdfunding examples also among the Do It Yourself cluster (crowdfunding projects directly managed by the promoters, with no involvement or very marginal involvement of existing platforms), such as well-known project *a step for San Luca* (Un passo per San Luca), where a crowdfunding campaign supported urgent conservation work of a very popular monumental shrine near Bologna, or *Io sostegno San Petronio*, which collected resources for the conservation of Bologna’s cathedral.

Within the Italian civic crowdfunding context, one notable example is the project launched in 2014 by the Milan Municipality, who provides a matching fund to civic initiatives that have already reached 50% of their target. The projects range from local welfare networks for disadvantaged social groups, to local food systems, to the reuse of abandoned buildings.

The Municipality firstly identified through a public call an operational partner, Eppela, a large reward-based crowdfunding platform, not exclusively specializing in civic crowdfunding. Through another public call 18 possible civic crowdfunding projects (out of 54) were selected. In 2016 the Municipality launched four subsequent rounds in which some projects in turn remained open and visible on Eppela for fifty days. If within this time frame, they were able to collect pledges for half of their target, then the Municipality contributed the other half. The underlying rationale is that the Municipality, within a pool of promising grassroots projects, prefers to support those which are the expression of community interest and engagement, and the pledges can be seen as a good proxy of these latter.

**The Welcoming Garden**

One of the projects which succeeded is *The Welcoming Garden* (Il giardino accogliente), part of a larger project promoted by a group of social cooperatives. The Welcoming Garden aims at collecting resources, but also ideas and projects, for the reuse of an abandoned area which has formerly been the private garden of a large villa located in a rural area on the Southern border of the city: the villa, originally owned by a family involved in organized crime, a has been confiscated by the State and given to the SIS social cooperatives group for social purposes.

While the buildings will be converted to housing for fragile social groups, and the surrounding land will host an innovative agricultural project, the abandoned garden will be devoted to activities for the local community. In parallel with the crowdfunding campaign, the promoters are running an open consultation on *Oxway* about ideas for possible functions and actions for the garden. *Oxway* is a crowd consulting platform, which allows citizens to first develop proposals and solutions to a common issue or problem, and then to vote and rank them.

This project appears very interesting in an ANT perspective, because it shows a clear socially horizontal organisation (both online and offline), it is flexible and it has a symbolic as well as a material relevance.
For the first aspect, not only is the crowdfunding initiative just a step within a more complex network building programme, but the identification of a group of citizens responsible for the project implementation will be one of the outcomes of the consultation phase; as far as the flexibility dimension is concerned, the crowdfunding project was not aimed at functions already decided upon, but it is accompanied by the parallel consultation aimed at identifying relevant ideas and projects coming from the community; and lastly, the material dimension (offering opportunities for community action) and the symbolic one (giving back to the public an asset originally belonging to organized crime) are strictly connected and mutually reinforcing.

Discussion

All three case studies present similarities and differences. Firstly, all projects have been developed with a strong, inclusive vision with the involvement of local people at developing the project ideas and with the aim of addressing the needs of the local, diverse communities. Additionally, all projects are rooted locally and show great understanding of the local, both physical and social.

Unlike the others, the Peckham project proposes a vision for a new infrastructure, which will require time and additional funding to be developed. Its value at present lies in the way it has mobilised communities and created local networks. The Haringey and Milan projects, albeit with differences, are smaller in scale, discrete and with a much more immediate measurable impact. The Haringey project shows its high level of replicability elsewhere in London and the Milan Welcoming Garden appears as a deliverable project set within a much broader and complex program.

Institutional endorsement can be given to strategically important projects, like in London, or to those project that appear to raise community support relatively quickly, like in the Milan example. This institutional backing, not only, translates into money, but the endorsement itself generates positive feedback loops, leading to more backing from the wider community. But if support is to some extent engineered, can it really be seen as a proxy for a public mandate? Moreover, only a detailed analysis of the amount and distribution of pledges would illustrate if support is really widespread and growing at community level, or if it is supplied by a small number of pledgers, already connected to the project promoter. This is clearly the main challenge in a context like the Milan one.

The degree of specificity and uniqueness of the circumstances determining projects will affect their replicability. The Peckham Coal Line project the product of a relatively unusual set of issues, spatial, social and political; whilst other projects may learn from it, it is not immediately replicable. The Kitchen Garden, on the other hand, responds with very widespread issues in a relatively common situation and its model could be easily adapted to other sites, and even the Welcoming Garden, offering a contained package within highly specific context, could also be to some extent replicated. The Welcoming Garden also holds a highly symbolic value, in that it involves the community in the transformation and re-appropriation of a confiscated asset, previously owned by organised crime; since there are many such assets across the country, in search of new uses and functions, replicability is an issue here.

Conclusions

In this paper we discussed the emerging field of civic crowdfunding as a way of initiating and supporting projects and initiatives that benefit a range of communities. We discussed civic crowdfunding in relation to ANT and diverse economy frameworks and through three case studies in London and Milan. The projects discussed vary substantially in scale and type of financial support received but they share significant experiences. Common to these projects is the significant journey from elaborating initial ideas, to reaching the financial target and implementing the
project, a journey in which citizens become engaged in discussions/visions/strategies about the future of their cities, through designing innovative projects, mobilizing financial resources and transforming urban spaces.

Yet, some projects more than others, seem to succeed in establishing wider networks of participation and collaboration with local communities and institutions, creating a multiplier effect. This has a potential to generate shifts in urban governance and to deliver innovative projects that consolidate a culture of citizen-led action. We argue that such projects need to be better understood and shared to support learning across networks and collective strengthening of initiatives that, albeit progressive and transformative, would otherwise only have a localized impact.

Building on our case studies, further research paths open up: while there is a need for more accurate quantitative and qualitative analysis of crowdfunding campaigns, there is also a strong need to identify more precisely criteria and indicators for evaluating their impacts and possible shortcomings or externalities, also in the light of the critical remarks highlighted in the preceding sections. Are crowdfunding campaigns really opening up alternative and potentially transformative new spaces of local democracy, or are they contributing to create club goods, thus replicating and not tackling spreading urban inequalities? Under which (cultural, societal, administrative, political) conditions are they producing the one or the other?

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Finding Direction in Urbanism through an Entangled Process of Architecting

Taking from where They Come to Affect where to go in the Urban Living Lab at the Josaphat Site in Brussels

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Abstract. This paper reflects on experiences at the Brussels living lab of the Incubators of Public Spaces research to envision a potential future for participation in urbanism. The living lab, which is situated at the Josaphat site, is positioned in a broader background of participation in (Brussels') urbanism. At this living lab, a research by design approach (Verbeke, 2013) is applied in which both research and design practice developed in alliance with local partners, including BRAL, a Brussels NGO. This paper discusses some of the preliminary findings that are related to the temporary use of the Josaphat site. The discussion focusses on the entangled and processual nature of the research and design practice in relation to the civic activities that evolve around the living lab. In order to define the potential of such an entangled process, the concept of “architecting” facilitates “taking from where they come from and affecting where they are going” (Bengston, Tarrès, Kwok, Mardare, & Paczkowski, 2016). In the same way, this paper will argue that – in the case of Josaphat – such a process has helped to find direction for the research (by design) and the temporary use of Josaphat. An illustration will be given through a process of collective “envisioning” (Manzini, 2014) that was realized within the architecting process at Josaphat.

To conclude, an open reflection will be given on the potential of an architecting approach in urbanism to strengthen the current wave of participation in urbanism.

Keywords. Participation; urbanism; research by design; architecting; urban living lab; temporary use

Introduction

In the first part of this paper the context and background of the Josaphat living lab will be given. The three waves of participation in urbanism in Europe (Mela, 2016) will be introduced, with a more specific account of the Brussels situation. In this light, the JPI Urban Europe research project Incubators of Publics Spaces is contextualized, after which the choice for the Josaphat site as Incubators living lab in Brussels is clarified. The experiences at the Josaphat living lab are discussed in order to develop a potential future for participation in urbanism (in Brussels).

The second section provides a description of the research by design approach that is applied by an architect-researcher that works in alliance with local actors of the Josaphat living lab. The preliminary findings of this research and design practice are briefly discussed. The outcome is a midterm report in the form of a “souvenir box”. This box contains, amongst other aspects, (1) a mapping that articulates the living lab experience through the metaphor of an exploratory journey, (2) a dictionary addendum that defines
the applied travel metaphors and (3) a series of letters that each explicate key concerns within the on-going research.

Thirdly, the discussion focusses on two aspects of these preliminary outcomes. One is the entangled nature of the research and design practice in relation to the temporary use of the Josaphat site as it is illustrated in a letter that describes the engagement of the architect-researcher within the multiple “we’s” that are at stake. The other aspect is the processual nature that is brought out through the mapping of the design practice as an exploratory journey. It is argued that these two aspects can both be recognized in the concept of “architecting” (Bengston, et al., 2016). That such an architecting approach has supported “taking from where they come from and affecting where they are going” is illustrated through a concrete experience of collective “envisioning” (Manzini, 2014), a framework for the temporary use of Josaphat. Within the case of the living lab architecting has facilitated to “find direction” for both the activities on-site as the orientation of the research by design.

In conclusion, the potential of architecting, as it has been experienced at the Josaphat living lab, is discussed in relation to participation in urbanism and its potential future direction.

**Participation in (Brussels’) urbanism**

*Three waves of participation in (Brussels’) urbanism*

Participatory Design (Saad-Sulonen, et al., 2015) has impacted on various disciplines, among which also the rather young field of urbanism (Agger Erikson, 2016). In (Western) Europe, three main waves of participation in urbanism can be recognized (Mela, 2016). The first wave is initiated during the ‘70’s, a period that has been characterized by protest movements. Also in Brussels similar tendencies in urbanism can be recognized. ’68 is defined as a crucial moment for Brussels as it initiates a decade of “luttes urbaines” (urban struggles) that fight the profit-driven destruction of the city (Doucet, 2010). The new planning mechanisms that are developed for Brussels since then show a recognition for citizenry’s competences and start to open up the planning process (Levy, 2013).

Later on in the ‘90’s a second uprising concern for participation in urbanism peaked. This process is characterized by top-down investments—often supported by European funding— that trigger socio-spatial improvements in post-industrial neighborhoods (Mela, 2016). In Brussels this second wave (that collides with the political autonomy of the Brussels Capital Region) can be illustrated by the launch of the (Sustainable) Neighborhood Contracts. This planning tool has been created through a partnership between the regional government and its municipalities in order to make socio-spatial investments in the urban fabric of deprived neighborhoods. An emphasis is put on the participatory dimension of this planning tool, which engages citizens already in the contract definition phase (Degros, 2014).

This second wave has been eroded due to the financial crisis. International as well as local governmental investments are being cut to save on budgets (Mela, 2016). In this context, when our problems seem to be more intractable (Murray, 2009) than ever, a growth of DIY (Do It Yourself) interventions in urban context becomes recognized (Pakhuis de Zwijger, 2016a; Pakhuis de Zwijger, 2016b; Ferguson, 2014; Gadano, 2014; Lydon, Bartman, Garcia, Preston, & Woudstra, 2012). A shift toward a more open and hands-on involvement in urbanism is also taking place in the Brussels context. Urbanist Benoit Moritz recognizes a raise of new types of players that challenge the conventional public policies (Levy, 2013; Moritz, 2009). Simultaneously, established urban movements like BRAL (stadsbeweging voor Brussel), which has its roots in the
Brussels “luttes urbaines”, bring out the richness of citizen initiatives that proliferate in Brussels (BRAL vzw, 2016; Brussels Academy; Crosstalks; BRAL vzw, 2015).

In contrast to this rich landscape of civic initiatives, the new planning tools that are currently being developed in Brussels are criticised for reducing the window of participation in official urban planning (IEB; BRAL; ARAU, 2017). The Brussels associations IEB (inter-environnement bruxelles), BRAL and ARAU (action urbaine) call for change. They argue that such an evolution in the Brussels urbanism is undesired and in conflict with the Aarhus Convention (UNECE, 1998) that is aimed to empower public participation in decision-making on matters concerning the environment. In their manifest, IEB, BRAL and ARAU (2017) stress to follow article 8 of the Aarhus Convention: “Each Party shall strive to promote effective public participation at an appropriate stage, and while options are still open, generally applicable legally binding rules that may have a significant effect on the environment.”

A similar call to involve citizens earlier on in planning processes is manifested by some of the self-organised temporary uses of the Josaphat site, the Brussels living lab for the Incubators of Public Spaces research project.

**Incubators of Public Spaces in Brussels**

The Incubators of Public Spaces research project is an EC funded project that aims to support participation in urbanism. Incubators seeks to expand opportunities for civic engagement in urbanism through the development of a user friendly online platform. Combining crowdsourcing and crowdfunding, the project aims to facilitate the realization of micro-interventions in public spaces. The software development will be experimented and informed by three urban living labs in European cities; Brussels, London and Turin.

As JPI Urban Europe research project that receives funding from local governments, the project is on the crossing of the second and third wave in urbanism. A publicly funded, top-down initiated process aims to trigger and enforce citizen initiatives that impact on public space through micro-interventions.

The Brussels living lab is situated on and around the Josaphat site in Brussels. This is a Zone of Regional Interest, that is about to be developed into a new sustainable neighborhood. The 24-hectare site is owned by a public actor; the SAU-MSI, which is the Urban Development Corporation of the Brussels-Capital Region. Both the regional and two municipal governments are involved in its planning process. Today the site, which has been stripped from its previous function as Josaphat marshalling yard, is awaiting its development while the planning process is on-going.

The Josaphat site has been selected as Incubators living lab based on the input from the Brussels urban movement BRAL, which is a partner in the Incubators project, and was informed by an analysis of the architect-researcher that is engaged to conduct research for the Brussels part within the Incubators project. The strategic role of the site, its urban scale, the public ownership, the diversity in surrounding neighborhoods and its on-going planning process to become a sustainable neighborhood made the Josaphat site an interesting starting point. Decisive for this choice was the already active interest of citizens for this terrain and its future. The condition of the Josaphat site provides an interesting ground to bring together the ambition of the Incubators project to expand the opportunities for civic engagement in urbanism with the desires of citizens to gain more influence on (the development of) their urban environment.

As the Incubators project is situated on the crossing of the second and third wave of participation in urbanism, the experiences within the Brussels living lab are looked at in this paper as a case that can contribute to the discussion on the current course of participation in urbanism and its potential future.
Research by design at Josaphat

Method, research by design

The Brussels living lab for Incubators is organized and researched by the Faculty of Architecture of the KU Leuven, which has a campus in Brussels, in collaboration with the local urban movement BRAL. A doctoral research project is undertaken as part of the Incubators project and is conducted by an architect-researcher. For this aspect of the Incubators project, a research by design approach (Verbeke, 2013) is applied.

In a research by design, designing is perceived as a crucial way to obtain and develop insight, understanding and knowledge. This method is applied in academic research, education and in the architectural and urbanistic practice. This creative approach toward knowledge production is seen as a catalyst for innovation (Department of Architecture, KUL, 2017). As such the involved architect-researcher takes up a design attitude to conduct the Incubators research.

In the context of this research by design approach, the Brussels Incubators living lab became a site for the testing of the Incubators platform as well as the base for the research and related design actions. Seen the participatory character of the Incubators project, the pilot act within this research by design was established to first explore the area around the Josaphat site through walking, and to get to know the citizens and collectives that were already engaged with this place. Following this “observing through walking” and “observing through engaging” (Pferdmenges, 2016) a design statement was made. A collage (see figure 1) that was displayed in the We-Traders (Fitz & Eppele, 2015) exhibition at Bozart Brussels gave form to a structure for civic exchange (Van Reusel, 2015).

![Figure 1](image)

Fragment of the BAZAAR FESTIVAL collage for the We-traders exhibition

From this pilot on, subsequent design acts (see figure 2) took place in strong interaction with the site and its civic stakeholders. While the involvement of the architect-researcher became more entangled with the civic scene, these design acts started to grow into collective projects that are still further developing. Both the activities and projects contribute to and can be seen as an essential aspect of the self-organized temporary use of the Josaphat site.
The (collective) design interventions entail the organization of activities for convivial encounters and debate (Picnic the Commons), moments for the presentation of inspiring examples (Wasteland Festival de la Friche), imagination ateliers (Atelier d’Imagination), workshops for construction (Chantier Ouvert), etcetera.

Furthermore the research by design had an active and crucial contribution in the founding of Recup’Kitchen, a mobile kitchen that offers a sustainable meal to bring people together around a table at the Josaphat site. This project has been realized through crowdfunding and is managed as a commons (Recup’Kitchen, 2016).

At this moment, the “Maison des Possible” (House of Possibilities) is being developed in co-production between different civic stakeholders, among which the architect-researcher. This venture has merged different projects (Module Make-It by Ivan Markoff; Huis van de Commons by the collective Commons Josaphat with funding of the Koning Boudewijn Stichting; the need for a place to host meetings for the collective Pass-ages) to offer a house to host and enforce the civic initiatives on and around the Josaphat site. It will serve as a meeting place for all stakeholders, and is aimed to facilitate contact and interaction with and between locals while offering a meeting place where the future of the area and the city can be discussed.

The production of imaginations that bring visions and concerns into open drawings and collages forms an important aspect of the design. In addition the close participation within the civic activities that evolve around the Josaphat site also informed the design and research through everyday discussions and collective visioning processes.

From the very beginning of this research a close collaboration took place with BRAL, which is an important agent in the civic scene that evolves around Josaphat. As an urban movement BRAL is in constant research for sustainable, participative ways to develop the city. As such BRAL supports the actions, reflections, organization of Commons Josaphat, which is a civic initiative that is looking to actively discuss the
future of the Josaphat site. Members of BRAL helped to reflect on the goals of the *Incubators of Public Spaces* research in relation to the everyday needs and visionary ambitions of the citizen collectives that are active on and around Josaphat. Apart from the design work also workshops have been taking place to unravel the needs and desires for the temporary use of the Josaphat site (an envisioning process, which will be described later on in this paper) as well as to discuss the potential of the Incubator platform.

Through the research by design approach and the engaged collaboration with BRAL, the research for the Brussels Incubator platform happened in entanglement with the actions and visioning processes that were set up by collectives, organizations and citizens which are interested in the Josaphat site. Due to this the Incubators living lab had the opportunity to inform the development of the Brussels Incubator platform.

**Preliminary results, a souvenir box**

The current state of affairs (February 2017) of the research and related design practice have been summarized in a midterm report that was materialized as a “souvenir box”. Through this souvenir box, the metaphor of an exploratory travel is brought on to give expression to the preliminary findings that occurred by implementing a designerly grounded theory methodology (Verbeke, 2017a and 2017b).

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*Figure 3*

The souvenir box gives expression to the metaphor of an exploratory journey that is used to give expression to the preliminary findings of the research
This souvenir box (see figure 3), among other objects, contains a mapping (see figure 2 and 4) of the current state of affairs of the doctoral research and its related design practice. On this map key concepts and insights have been outlined in bold letters. These concepts focus on the historical contextualization of a participatory design practice in architecture, while other parts articulate the activist and statement-based–performative (Wolfrum & Brandis, 2015; Gadanho, 2014; Gadanho, 2011)–nature of the on-site interventions and more. As a complimentary layer, grid lines are formed that assemble more concepts which have been recurring or popping out in the daily notes that the architect-research records in her notebooks and were discovered through a process of coding.

As a red wire throughout these bold key concepts a colored line illustrates the various stages that come with a performative design practice (see figure 3 and 4). These stages are further discussed in a “dictionary addendum” (see figure 6) that comes with the souvenir box.

In addition to this map, a series of letters are written that address different audiences and which discuss the concepts that have been laid out in the mapping. Every letter goes in an envelope that also contains a couple of Polaroid pictures (see figure 5) that integrate the visual layer of the research. All together these photos, writings and the layered mapping provide a midterm report of the research, which has evolved around Josaphat and in relation to the framework of the Incubators project.

Figure 4
The mapping of the research, key concepts are outlined in bold writing
Architecting at the Josaphat living lab

An entangled process

In the souvenir box, most of the written letters have a first person plural as a subject. This “we” gives expression to the different collectives and groups the architect-researcher is part of. This engaged participation in different “we’s” is described in one of the letters that come with the souvenir box (see figure 5):

“So what about the role me and us are playing throughout this journey? (...) A division between me and the other people involved is blurry. It would be unfair and egocentric to reduce all of this work to ‘me’. (...) This work is inextricably entangled with its context; the place, the many and layered visions, regulations, creative interventions...”

Further on this entanglement in various “we’s” that play a role at the (temporary use of) Josaphat are described:

“The we of this story is vague, deliberately not specified. There are a lot of different we’s... Sometimes in conflict with each other, but mostly very entangled (...)”

There are the various collectives that work on and around the Josaphat site. We, the Recup’Kitchen team. We, the collective of Commons Josaphat. We, building the ‘Maison des Possibles’. We, gardeners. We, nature lovers. We, wildlife.”

There are the identities in which we take part or that we represent. We, Brussels citizens. We, commoners. We, activists. We, temporary users of waiting spaces. We, performers. We, trespassers. We, people of the world. We, people of a generation that has lost faith. We, dreamers. (...)”

We, as travelers on an exploratory journey.”

These writings articulate the close relationship between the architect-researcher and the other actors that are active on Josaphat. The architect-researcher is positioned as a participant in an already existing living lab landscape. In this engagement she takes up an active role and co-defines the different we’s she has been taking part in. For the research, she takes the position of a participant-observer.
Members of Bral have been taking up a similar entangled approach in their role as an urban movement that supports and instigates citizen’s actions. In the same way they were actively involved in the actions.

The mapping (see figure 4) that is part of the souvenir box gives expression to the processual nature of the research. This processual character is brought out through the metaphor of an exploratory journey. The course of the experienced and studied journey is illustrated in the drawing of a red wire (see figure 3 and 4). Taking different turns and forms, this wire gives expression to important facets of such a travel.

Each of these facets are defined and illustrated in a “dictionary addendum” (see figure 6) that comes with the map. The metaphor kicks off with the concept of “diving in the unknown”, after which the traveler encounters moments of, among others, “wandering” (Van Reusel H., 2016), “getting lost”, “maneuvering”, “climbing mountains”, “recuperating” and “finding direction” in order “to be continued”.

Figure 6
Two extracts from the dictionary addendum, defining and illustrating facets of the exploratory journey

This mapping brings out the necessity for the architect-research to first get to know the scene and to position herself within a, at that time, unknown environment (the pilot act). After which it is important to experiment and wander, including losing track and making detours, in order to be able to build up an entangled design process. The illustration of the exploratory journey gives form to the importance of a process-oriented approach to collectively find out which direction the research and design practice should take.

A process of architecting

The entangled and processual nature of the exploratory journey that develops at the Josaphat living lab can be recognized in the concept of “architecting” (Bengston, Tarrés, Kwok, Mardare, & Paczkowski, 2016; Belderbos, 2005). In 2005, Marc Belderbos brought up the concept of “to architecturate”, translated from the French “architecturer”. This concept refers to the work of the architect as “a relationship to the real which is not realistic”. A similar interpretative and constructivist reading of the architectural profession can be recognized in the notion of “Architecting” as formulated by the architects Bengtsson, Tarrés, Kwok, Mardare, Paczkowski in their description of the design of their “Nomadic Shelter / SALT Siida Workshop”. The project depiction, indexed as “Recognition: 205”, is part of the over 300 leaflets that were at display in the exhibition of the Nordic pavilion for the 15th architectural Biennale di Venezia in 2016, curated by David Basulto.
Bengtsson, Tarrès, Kwok, Mardare, Paczkowski articulate “architecting” as the understanding of architecture as a process rather than an object. Architecting stresses the processual nature of architecture in which the architect engages fiercely and develops a relationship with other people, materials, things, landscapes, territories, et cetera. “When one can just let go and focus on these relationships, ‘architecting’ becomes so entangled with people, their personalities and social upbringing, taking from where they come from and affecting where they are going.” (Bengston, Tarrès, Kwok, Mardare, & Paczkowski, 2016)

The “diving in” into the civic landscape of the Josaphat site and the entanglement of the architect-research in different “we’s”, can be described through this process of architecting. That such an entangled and relationship-oriented approach can bridge between “taking from where they come” to “affect where they go” can be illustrated by the experience of collective “envisioning” (Manzini, 2014) process for the temporary use of the Josaphat site.

Collective envisioning in architecting

The collective envisioning of the temporary use of Josaphat is grounded within the work of one of the civic collectives that has been working on the commons-oriented visioning of the future of the Josaphat site. The Commons Josaphat collective aims to encourage a commons-oriented development of the planned Josaphat neighborhood (Commons Josaphat, 2015; De Pauw, Lenna, & Napals, 2013). Commons Josaphat is a civic platform that has been working on and around Josaphat since 2013, before the research by design or Incubators project were initiated. It has been one of the collectives in Brussels that is self-organized and in which both members of BRAL and the architect-researcher are currently participating.

In December 2015, as part of a general assembly of the Commons Josaphat collective, a working group focused on the needs and potential of the temporary use of the Josaphat site. At the moment of the assembly, the civic initiatives that were part of the temporary use were: a collective neighborhood garden (Jardin Latinis), nature enthusiasts (Aves/Natagora), punctual events (organized by members of Commons Josaphat as well as other collectives). Both people that were already engaged in the temporary use as well as other enthusiasts were invited to participate in a workshop to discuss the future of the temporary use.
Figure 7
Aspirations and ideas for the temporary use of Josaphat are posted on a timeline

The participants were asked to introduce themselves through their ideas and aspirations for the temporary use of Josaphat and to position these on a timeline (see figure 7). Throughout this workshop it became clear that the “how” of the imagined uses was of crucial importance. As an example, it was agreed upon that the creation of a swimming pool should happen in respect to the natural environment, and is to be created and managed collectively.

In the discussion that followed, the group outlined a strategic approach to enforce their aspired, commons-based, use of the Josaphat site through the development of a “cahier des charges” (principal characteristics). This strategy was developed in response to the plans of the public owner of the Josaphat site (SAU-MSI) to launch an official open call for transitory use of the site. It became the ambition to influence the public stakeholders to incorporate the concerns and aspirations of the citizens that were related to Josaphat.

A series of follow-up meetings took place to develop a document to give expression to the values that were collectively aspired. Based on the desires and aspirations that were articulated in the first workshop, five main topics were developed:

- a natural environment,
- a common and integrated place,
- a laboratory, a workshop space,
- a circular and transitory use, and
- a serene and convivial atmosphere.

These five principles have been written down in a shared digital document and at this stage (February 2017) are given form in a small booklet that is shared and discussed during events on and around the Josaphat site.

Furthermore this document has been shared with the public owner of the Josaphat site, which will organize the official transitory use that is planned. Currently the five principles are also under attention to be integrated in the Incubator platform for the Brussels living lab.

The development of these five principles can be defined as a process of collective “envisioning”, as it is formulated by Selloni and Manzini: “feeding social conversations
and co-design process with visions and ideas, to trigger different actors’ motivation and their ability to activate themselves in new directions and to support innovative future policies” (Sellone & Manzini, 2016).

**Finding direction through architecting**

The described process of collective envisioning the temporary use of the Josaphat site, illustrates how the entangled process of architecting took on a course of “taking from where they come” to “affect where to go”. The five principles that have been envisioned function as a framework that embodies the direction in which to further develop the current, self-organized temporary use as well as the entangled research by design.

The overall process behind the development of the five principles has been curated by the architect-researcher and an employee of BRAL in their identity as active members of the Commons Josaphat collective. As both actors were very much entangled in the broader civic landscape of Josaphat, they stood in close relationship with the people, and were knowledgeable about the needs and concerns that were related to the temporary use of this place.

The processual nature of the development of these five principles –through multiple discussion moments– was of crucial importance to let the needs and aspirations grow into a collective framework.

This entangled process of architecting has helped “to find direction” in which to continue the temporary use and the research. In the dictionary addendum this aspect of “finding direction” is described in relation to the metaphor of an exploratory journey:

> “An open framework of our envisioned values underpins this journey. It offers a sense of certainty, gives grip, even though still being very loose. It drafts the outline of a direction, yet does not tell you which pathway to follow.”

The collectively envisioned framework provides guiding in the journey.

**Architecting to find direction in urbanism?**

The context-based case of the living lab at the Josaphat site in Brussels shows that an entangled process of architecting can facilitate a collective envisioning that takes from where they come, to affect where to go.

This process helped to find direction for the temporary use of the Josaphat site as well as it aspires to impact on its future use and development. This case of architecting is intended to affect beyond the civic scene that evolves around the site and is aimed to inform and influence both the official –and still to be organized– transitory use of the Josaphat site as well as the development of the Incubators platform for the Brussels living lab. This is in line with the statement of article 8 of the Aarhus Convention (UNECE, 1998) that has been brought to light by urban movements in Brussels (IEB; BRAL; ARAU, 2017), aiming to protect and expand the window of participation in Brussels urbanism.

As the experiences at the Josaphat living lab are positioned on the crossing of what is described as the second and third wave of participation in urbanism, the discussed findings could offer an interesting perspective to look at the current developing of the third wave. A growing scene of civic initiatives is in Brussels contrasted by new proposed planning tools. The case of the Josaphat living lab might open up the discussion of what could be possible if a process of architecting, that helps to find direction for the use and development of an urban space, would be applied in today’s urbanism. The insights that have developed through this living lab can only be claimed for the specific case of the Josaphat site; however, architecting might offer a provocative approach to give space to citizens to take part in the decision-making on their environment.
A process of architecting has the potential to push urbanism toward a more processual and entangled relation to the urban environment (including people) it is aimed to impact on. Partition, as such, goes beyond an act of involving citizens in a by experts conducted urban planning procedure. Rather, allowing experts to become entangled to a place and its people can bring out enriching perspectives to integrate the recommendation of the Aarhus convention. The urbanist becomes a participant in the civic scene. Likewise, the approach to come loose from objects—such as a defined masterplan—, but to instead look at urban planning (in all its facets) as an on-going process could facilitate a collective envisioning process that leaves space to figure out the direction along the route.

Implementing architecting in urbanism could open interesting opportunities to give room to the third wave of participation to affect the urban planning scene. The entangled and processual nature could help to “take it from where they come” to “affect where to go”. It calls to look beyond the current planning mechanisms in order to truly co-produce the direction our cities will develop.

However such a bold leap from an experience at a living lab to the urbanism scene needs to be undertaken cautiously. This paper’s statement to implement architecting in urbanism needs to be further experimented and studied. The temporary use of urban spaces that are awaiting their development could offer an interesting context to scale up and study an architecting approach in urbanism.

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Crowdfunding Urban Development
Overview and Current Trends in Europe and the US
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Abstract. Recently, Crowdfunding has become a debated issue in several academic disciplines, including the field of Urban Studies. While at the beginning Crowdfunding was primarily used to fund projects in the creative sector, online platforms specifically designed for Crowdfunding campaigns in the context of urban development are increasing. Meanwhile, a diversification in the concepts of the platforms can be observed as Crowdfunding in the context of urban development starts to take slightly different paths in the United States and Europe. The paper argues that this is reasoned by the different political and civic contexts and presents analyses of the main actors involved in the topic. The reasoning is based on current examples from Europe and the US. Finally, the paper outlines and assesses the potentials of Crowdfunding, namely to foster democratization and participation in the context of European and US-cities.

Keywords. Civic Crowdfunding; Urban Studies; Urban Development; Participatory Planning; Democratization.

Introduction
More than 360,000 US Dollars have been already Crowdfunded to realize the +POOL project, a water filtering floating swimming pool on New York’s Hudson River. Once it will be implemented people are going to be able to swim in the water of the Hudson, facing the world famous skyline of Manhattan. Across the Atlantic in Antwerp – Belgium, citizens have raised 200,000 Euros for the campaign Ringland to fund their own feasibility study about the redesign and capping of the city’s highway system. This citizen-science campaign might be the starting point for the implementation by the authorities of the 6 billion Euro project, which would increase the livability of the city and its citizens significantly. These two rather different examples show that Crowdfunding as a tool for urban development has nowadays emerged on both sides of the Atlantic. Starting with a presentation of the main actors involved in the practice of crowdfunded urban development, the text aims to unravel the logics and motivations of the implicated actors. Moreover, I will argue in this paper that conditioned by the political and civic context, it seems that the usage of crowdfunding in urban development is starting to take different paths in the United States (US) and in Europe. Furthermore, the strengths and critics of crowdfunding in the context of urban development will be outlined and briefly discussed. As Crowdfunding has just developed recently into an object of study, continuing scientific research on this topic is necessary to propose recommendations towards the positive potential of the use of crowdfunding. The paper addresses this issue by presenting current trends and examples from the US and Europe and providing a brief evaluation of the findings.

From Entrepreneurial Crowdfunding to Civic Crowdfunding
Long before the term Crowdfunding saw the light of day, citizens pulled their money together to realize projects for which the governmental authorities’ didn’t have, or didn’t want, to have the necessary funding. Examples can be found in the old as in the new world, probably the most quoted one being the newspaper led fundraising campaign for
the edification of the pedestal for the Statue of Liberty in New York in 1885. The primary difference here to modern crowdfunding was the offline-organization and coordination. The recent raise of online crowdfunding must be seen together with similar movements and developments enabled by the internet. Shortly before the term crowdfunding was created, the term crowdsourcing became popular and was taken up by public and private actors through different fields (Gleasure and Feller 2016). The term crowdfunding can be seen to as subtype of Crowdsourcing and was first coined in 2006 by Michael Sullivan, who was an early pioneer in online crowdfunding with his website fundavlog. However, already in the early 2000s, hand in hand with the raise of social web, online messengers and improved possibilities of online payments, artists and entrepreneurs with a background in music-, film- and media-industry started to use online fundraising to realize and promote their projects (Davies 2014:24-25). However, the take-off of Crowdfunding arose really with the launch of the first professional online crowdfunding platforms; Indiegogo in 2008 and Kickstarter in 2009. These two platforms, which focused primarily on promoting entrepreneurial projects, started the popularization of online crowdfunding beyond the initial internet savvy music-, film- and media community (Stiver et al. 2015, Davis 2015). With increased reports about Crowdfunding in mainstream media, the general interest on Crowdfunding rose sharply and now could be considered a term of everyday language.

Initially most crowdfunding platforms focused on entrepreneurial projects, but from 2009 onwards a new subtype called Civic Crowdfunding arose. Crowdfunding in general can be described in simplest terms as the practice of people to pool their money together to finance a project using an online platform (Gleasure R. and Feller J. 2016, Stiver et al. 2014, Ordanini et al., 2011: 444). Civic Crowdfunding in particular refers to the usage of the crowdfunded money. It can be defined after Davies (2014: 28) as: “Crowdfunding projects that provide service to communities”. Or in other words, it is the counterpart of Crowdfunding that provides finance for a business project. This differentiation is relevant because when we talk about crowdfunding urban development, we will most times refer to Crowdfunding as Civic Crowdfunding. Furthermore, through the differentiation of Crowdfunding in several subtypes, more specialized platforms have been launched (Davies 2015). For the case of Civic Crowdfunding the launch of the platforms IOBY in 2009, of Spacehive in 2011 and of

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**Figure 1**

Worldwide research interest of the term “Crowdfunding” in Google from 2006-2016. Source: Google 2016, own draft. The values on the y-axis are relative values to the highest research interest at one point in the period. Meaning that “100” stands for the highest research interest, “50” for half of the research interest and “0” stands for less than 1% of the highest research interest.
Citizinvestor in 2012 can be seen as milestones. Online platforms like these, which refer to themselves as Civic Crowdfunding platforms, host most of the campaigns for urban development. As a consequence, the empirical research of this paper is focused on Civic Crowdfunding platforms, their campaigns concerning urban development and related agencies and actors. The investigation consists of 12 semi-structured interviews with European and US-American experts from online platforms, campaign leaders, engaged authorities and activists. In addition, several site visits of implemented projects in Europe and the US have been included in the research, as well as a broad review of public media and literature. Finally, a comprehensive observation of several European and US-American Civic Crowdfunding platforms completes the research design.

The Actors

If we understand Urban Space as social production and Urban Development as social practice, it is necessary to take a deeper look at the actors who drive the permanent reshaping and rebuilding of the city. The unravelling of the relations, the resources, the power, the cooperation, and the conflicts of the actors who shape together the city requires a characterization and analyses of their roles (Gottdiener 2000, Lefebvre 1991). In the context of Crowdfunding, four major groups of actors can be detected: the platforms, the crowd, the public authorities, and third parties like NGOs, architects, developers, political parties, etc. These groups are slightly differently assembled in the US and Europe, mainly due to the different political and civic context. The characterization and the assemblage of the presented actors is based on selected case studies and will provide an insight into the current situation in the US and in Europe. They present a representative but not complete summary of online platforms, crowdfunding campaigns, and country-specific features.

The Platforms

The platforms are the “online-stage” where crowdfunding takes place. Together with the spread of fast and cheap internet, it has been the improved usability of websites which enabled the boom of online Crowdfunding. The two forerunners in Crowdfunding were the US-based platforms Kickstarter and Indiegogo, both of which emerged in the late 2000s. These two platforms, which have been in existence for less than ten years, can be still considered as the most established ones worldwide. It is not just their relatively long existence but also the absolute numbers of raised money and campaigns they run that stresses their position as market leaders in the field. Even though they are primarily focused on entrepreneurial Crowdfunding, a significant number of Civic Crowdfunding campaigns is hosted by these two platforms. In contrast, truly Civic Crowdfunding platforms were established a bit later. One of the first platforms which focused exclusively on the subtype of Civic Crowdfunding is the 2009 launched US-based platform IOBY. In the European context, the first platforms which dedicated their service to Civic Crowdfunding have been UK-based Spacehive funded in 2012, Netherlands-based Voor je Buurt funded in 2013 or Belgium-based Crowdfunding BXL funded in 2013. The younger and specifically Civic Crowdfunding focused platforms show clear differences from the two “top-dogs” Kickstarter and Indiegogo. Apart from providing an improved usability, specifically for Civic Crowdfunding campaigns, they follow slightly different business models. Many of these platforms operate on a nonprofit basis and have charitable purposes. Nevertheless, the fees are mostly similar to the profit-oriented platforms. This is caused by the normally rather small funding goals of Civic Crowdfunding campaigns. While entrepreneurial Crowdfunding campaigns can have funding goals up to several 100,000 Euros, most Civic Crowdfunding campaigns aim for less than 10,000 Euros (van Tilburg 2015). As a consequence, the
returns, which are usually a percentage of the raised money, are rather small for Civic Crowdfunding platforms. Therefore, many Civic Crowdfunding platforms are reliant on other revenues apart from their core business. Cooperation is suggested by the fact that Civic Crowdfunding campaigns interfere commonly in the area of responsibility of governmental authorities. For many Civic Crowdfunding platforms governmental projects or subsidies function as necessary ancillary revenues. Some Civic Crowdfunding platforms go even one step further. Platforms like US-based Citizinvestor or Neighborly cooperate exclusively with governmental authorities. While most platforms are open to individuals starting a campaign, on these platforms only governmental authorities can launch campaigns. This trend of governmental initiated crowdfunding seems to develop into two different directions. On the one hand, governmental authorities use these platforms for match-funding. This simply means, that the authority provides a part of the necessary funding for a project and uses crowdfunding to raise the missing funding to implement the project. Match-funding is increasingly practiced by governmental authorities in the US and in Europe. On the other hand, platforms like Neighborly operate as intermediary for communal bonds. This can be so far just observed in the US. This latter development, cannot be considered as Civic Crowdfunding in the proper meaning of the word.

<p>| Selection of US- and European Crowdfunding Platforms which are used for Civic Crowdfunding 2016 |</p>
<table>
<thead>
<tr>
<th>Platform</th>
<th>Country</th>
<th>Type of Crowdfunding</th>
<th>Profit/ non-profit</th>
<th>Fee¹</th>
<th>Initiator</th>
<th>raised money²</th>
<th>launched</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kickstarter</td>
<td>USA &amp; global</td>
<td>General CF</td>
<td>Profit</td>
<td>5%</td>
<td>Individuals</td>
<td>2,718 $</td>
<td>2009</td>
</tr>
<tr>
<td>Indiegogo</td>
<td>USA &amp; global</td>
<td>General CF</td>
<td>Profit</td>
<td>5%</td>
<td>Individuals</td>
<td>1,878 $</td>
<td>2008</td>
</tr>
<tr>
<td>Spacehive</td>
<td>UK</td>
<td>Civic CF</td>
<td>Profit</td>
<td>5%</td>
<td>Individuals</td>
<td>5,593 $</td>
<td>2012</td>
</tr>
<tr>
<td>IOBY</td>
<td>USA</td>
<td>Civic CF</td>
<td>Profit</td>
<td>3%</td>
<td>Individuals</td>
<td>2,763 $</td>
<td>2009</td>
</tr>
<tr>
<td>Citizinvestor</td>
<td>USA</td>
<td>Civic CF</td>
<td>Profit</td>
<td>5%</td>
<td>Authorities</td>
<td>No data</td>
<td>2012</td>
</tr>
<tr>
<td>Neighborly</td>
<td>USA</td>
<td>Civic CF</td>
<td>Profit</td>
<td>non</td>
<td>Communes</td>
<td>No data</td>
<td>2012</td>
</tr>
<tr>
<td>Voor je Buurt</td>
<td>Netherlands</td>
<td>Civic CF</td>
<td>Non-profit</td>
<td>5%</td>
<td>Individuals</td>
<td>700,000 €</td>
<td>2013</td>
</tr>
<tr>
<td>CF BXL</td>
<td>Belgium</td>
<td>Civic CF</td>
<td>Non-profit</td>
<td>10%</td>
<td>Individuals</td>
<td>442,000 €</td>
<td>2013</td>
</tr>
</tbody>
</table>

Table 1
Selection of US- and European Crowdfunding Platforms which are used for Civic Crowdfunding in 2016.
Source: own draft. ¹Total amount of raised money since platform was launched by December 2016. ²Percentage from the total raised money of a campaign.

The Crowd
If the online platforms are be considered the stage where Crowdfunding takes place, the people who contribute to the campaigns by donating and participating must be considered as the performing actors. The collectivity of all the involved individuals forms the crowd, which is the eponym for Crowdfunding. The concept of the crowd in general, while doing so, is rather vague. The individuals might just be connected through the participation in the same project. In case of online-donations this can exclude any kind of social contact in-between the individuals. On the other hand, empirical research shows that social relations within the participants play an important role in online Crowdfunding. Furthermore, Civic Crowdfunding campaigns commonly also have offline events which support the online funding. This can help to overcome the digital fracture between frequent internet users and less familiar users or people with
limited online access. The size of the Crowd in Civic Crowdfunding differs strongly along the campaigns and their funding goals. While the smallest campaigns with funding goals of a couple of hundred Euros can be successful with 6 or maybe 8 backers, bigger campaigns can regularly have up to 100 or 120 backers. Civic Crowdfunding campaigns that exceed this dimensions, like for example the Ringland campaign in Antwerp, which raised a 100.000 Euros, are still untypical but some success stories can be found in Europe and the US. Coming back to the individuals who form the Crowd, a precise characterization in terms of social-economic or social-demographic background of the participants is difficult. For the one thing Davies (2015) stresses the necessity of financial resources to donate for a campaign. However, the donations in Civic Crowdfunding start frequently with 10 Euros or less and donations around 25 Euros are commonly average in campaigns. In addition to that, distance is also a central factor for backers. In a geographical sense, distance matters because even though direct rewards play in Civic Crowdfunding just a minor role, indirect rewards seem to matter. Individuals who can make use of the implemented project are highly over represented in campaigns (Stiver et al. 2015).

![Figure 3](distance_backers_motivation_crowdfunding.png)

**Figure 3**
*Distance and backer’s motivation in Civic Crowdfunding. Source: own draft.*

In a social sense, distance matters because in many cases a social relation between project initiators and backers can be observed. This indicates that in correspondence with the geographical and social distance of the backer to the project, the motivation is more philanthropic or rather reward driven. If Civic Crowdfunding hence reinforces spatial and social inequalities or if the opposite is the case is controversially discussed in the scientific community, but so far no empirical evidence could be found which confirms one or the other (Bieri 2015, Davies 2015).

**Governmental Authorities**

When Civic Crowdfunding is defined as “Crowdfunding that provides service to communities” (Davies: 2014: 28), it seems to be evident that this interferes with the function of public authorities. Expressed in exaggerated terms, this means that Civic Crowdfunding campaigns are intruding in the area of responsibility of the public authorities. This must be seen in the context, that public authorities in Europe and the US traditionally have the duty, but also to a certain point the sole right, to provide services to communities. As a consequence, most Civic Crowdfunding campaigns cannot be successfully implemented without cooperation of the public authorities. This becomes even clearer when the campaign addresses issues in public space. The way how public authorities deal with Civic Crowdfunding differs significantly from city to city and even more from country to country. While in some cases the public authorities tend to suppress campaigns in indirect or even direct ways, in other cases public authorities cooperate successfully. Furthermore, a correlation between less centralized public authorities with a weaker welfare approach and the openness to Civic Crowdfunding can be observed. Applied to countries, this means that US public authorities are commonly easier willing to permit Civic Crowdfunding campaigns, especially on a neighborhood scale. In Europe, public authorities are frequently reserved
and it needs often longer to get their permit. On the other hand, the cooperation with the authorities is sometimes deeper, once the campaign got the permit. In some cases, especially in the UK, public authorities have already started to actively use Civic Crowdfunding for urban developments. In such cases public authorities may even initiate a Civic Crowdfunding campaign to fund urban development. Frequently, this is used in combination with match funding, a practice where the state provides partial funding and crowdfunding is used to raise the missing financial means (Lee et al. 2016). However, regardless of their initial involvement, public authorities are always a key stakeholder in Civic Crowdfunding and play a decisive role if a campaign is successful or not.

Third Parties

The fourth group of actors consists of stakeholders who are often only involved in Civic Crowdfunding in the background, but while pursuing their interests they can have noticeable influence on a campaign. Examples of this rather diverse group of actors include NGOs or political parties who might support a Civic Crowdfunding campaign because the project meets their beliefs or is in line with their political strategies. Other examples are architects and developers who are possibly assigned to carry out the implementation of a successful campaign for urban development. Additionally, recently emerging crowdfunding consultancies also count in this group. Depending on how broad stakeholder are defined, additional actors can be identified, but a common feature will be their heterogeneity.

Diversification, Shifts and new Paths

Recently, the usage of Crowdfunding in general and Civic Crowdfunding in particular is increasingly fashionable. As the number of campaigns and platforms is growing, the concept continues to diversify and new grounds are broken. On the one hand, the term Civic Crowdfunding is utilized for campaigns and funding which hardly correspond with the initial definition, or even not at all. On the other hand, the development in Europe and the US is slightly drifting apart. In Europe, a trend towards the use of Civic Crowdfunding for interventions and political activism can be observed. Tactical urbanism, interventions in public space or simply neighborhood initiatives are nothing new, but the use of Civic Crowdfunding for additional funding to support this actions is a novelty. The major difference from the so called do-it-yourself urbanism (DIY-Urbanism), which can be more observed in the US, is that this campaigns don’t have the intention to fund and implement a long term solution for a public issue but to point out grievances and to make pressure on the public authorities to get active. Illustrative examples for this is the crowdfunded pop-up-park “Koop een Pop Up Park in de Brusselse kanaalzonein” in Brussels, which forced the authorities to finally implement a proper park in the neighborhood, or the civic crowdfunded feasibility study to cap the city highway in Antwerp (“Ringland”). In addition, a second trend in the European context is the growing institutionalization of Civic Crowdfunding. While many campaigns still struggle to receive authorization and support from the public authorities, in some cities the public authorities started to use Civic Crowdfunding more actively. In other words, an incipient institutionalization of Civic Crowdfunding can be observed. In practice, examples of governmental initiated crowdfunding where the complete funding is provided by citizens are still rare in Europe. However, match-funding projects, can be already found. An illustrative example is the initiative Luchtsingel in Rotterdam, where the city provided just the basic funding to redevelop a slightly neglected public space and to build a new pedestrian bridge to better connect the area with the city center. The missing funding for this project was raised via a Civic
Crowdfunding campaign. Incrementally, match-funding projects are also used in combination with Public-Private-Partnerships (PPP). In this case the funding is split up between the public authorities, a Civic Crowdfunding campaign and a cooperate sponsor which is mostly a company (Stiver et al. 2015). Furthermore, in some cases governmental agencies cooperate increasingly with Civic Crowdfunding platforms and support and promote campaigns actively. In some cities it is under consideration to include Civic Crowdfunding officially in the repertoire of participatory instruments for urban development.

In the US, Civic Crowdfunding is closely linked to the tradition of DIY-Urbanism which dates back to the late 19th century. The massive urbanization and the rapid growth of cities like Chicago or New York overstrained the public authorities and poor quality of living was a common consequence in many parts of the city. This put forth first beautification groups which consisted of citizens who had the aim to clean and improve their neighborhoods with small scale projects and decorative art (Finn 2014). The tradition of incremental improvements continued in the 20th century and was taken up to some extent by urbanists like Jane Jacobs. The hands-on approach to improve the own urban environment is historically a well-respected effort in the US (Talen 2015). Today, DIY-Urbanism and Civic Crowdfunding complement each other frequently in the US. The most common Civic Crowdfunding campaigns are park improvements and clean ups, which show the relation to everyday urbanism and even to the earlier beautification movements. Examples can be found on all scales, ranging from little community parks to the famous Highline-Park in New York meat-packing district which was funded and is still maintained by a citizens group called Friends of the Highline. Inspired by the success of the Highline-Park, currently a Civic Crowdfunding campaign is running in New York to raise money to implement the first underground park in an old trolley terminal, called the Lowline. In comparison to most European cities, there is a longer tradition and willingness of citizens to invest free-time and money to improve their neighborhood. This must be also seen in the context of austerity policies and budget shortages which did arise in the in US-cities already in the 1970’s but which affected most European Cities for the first time on a bigger scale after the financial crises in 2007/08. As a consequence of that, a tradition of a hands-on approach to fix what the public authorities cannot, or don’t want, to afford any more developed in many US cities already decades before this became an issue in Europe. However, the intensified budget shortages and austerity policies after the last financial crises can be directly associated with the raise of Civic Crowdfunding in the US and in Europe. The municipal cutbacks affected the public funding for cultural and social projects on both sites of the Atlantic particularly severely. As a result many initiatives had to look for new ways of funding and in the process at least some of them discovered Civic Crowdfunding as an alternative (Arnoldus 2015).

Apart from the old tradition of DIY-Urbanism in the US, a new trend is emerging: the usage of the term Civic Crowdfunding for the selling of community bonds. The US-based platform Neighborly mediates community bonds to private investors in the wake of Civic Crowdfunding. Even though investing citizens can actively shape their urban environment by deciding for which project they buy community bonds, this practice doesn’t correspond with the initial meaning of Civic Crowdfunding as donation based campaigning which provides service to communities. This commercialization of Civic Crowdfunding has similarities with the - especially practiced in the US and UK - governmental initiated Civic Crowdfunding but transforms it from an essentially charitable project towards a new branding of old-fashioned investment.
Opportunity for democratization and enhanced participation?

Civic Crowdfunding has an overall positive connotation in Europe and the US as it is often associated with democratization, participation and sustainable solutions for cities (Cohen and Muñoz 2016, Gebhardt et al. 2014). The scientific evaluation and empirical research about the opportunities for Civic Crowdfunding as an instrument for Urban Development is so far rather poor. However, there are indices that Civic Crowdfunding can help to engage and to integrate citizens more actively and longer in participatory projects. First findings show that people who participated in a Civic Crowdfunding campaign feel more attached to a project and show more interest in the long term. This effect is independent from the amount of money they donated for the campaign. Urban developments which are at least partly enabled by Civic Crowdfunding provoke fewer objections by the local communities and are therefore easier and quicker to implement. In the European context, Civic Crowdfunding campaigns like Ringland (capping the Ring road) or Koop een Pop Up Park in de Brusselse kanaalzonein (Pop-up-Park) which don’t aim to implement a long term solution funded by citizens but rather use Civic Crowdfunding to get their voices heard and point out alternatives to the public authorities, can strengthen local democracy. The hands-on neighborhood groups which are more popular in the US can have a similar effect. The acting together can foster community building and the normally bottom-up structure of these groups can help to develop a local debate culture and thereby help to strengthen democracy.

In contrast, there are justified concerns about the inclusivity of Civic Crowdfunding. Even though in most campaigns donations starting from 1 Euro or Dollar are common and welcome, a certain financial potential is needed to participate. Furthermore, the online organization may facilitate participation for many citizens but the digital divide must not be overlooked. Elderly citizens and those with lower incomes in particular have significantly fewer access to online instruments (Davies 2015). This causes still the need for accompanying offline activities to ensure inclusivity. A more general critique is that the participating citizens are not representative of the whole urban society. This critique, which is also commonly addressed to all other kinds of participatory instruments, must be also considered with Civic Crowdfunding. This is especially true as similar instruments like participatory budgeting in Europe and the US show an over-representation of citizens with a higher socio-economic background (Nez 2013). Lastly, an intensely discussed critique is the question whether Civic Crowdfunding can increase social inequality and if it is just a continuation of the neoliberal practices in the age of entrepreneurial urbanism (Bieri 2015). This argument is difficult to assess, as austerity measures and the roll back of the state is a reality in most US and European cities (Peck 2012). The initial aim of Civic Crowdfunding is not to undermine the role of the state or to step in for cuts in public funding. On the other hand, the risk that Civic Crowdfunding may be (ab)used for neoliberal practices to cut down the welfare state and to reduce public funding is a legitimate concern in this days. Effectively, it has to be assessed on a case-by-case basis if cities try to use Civic Crowdfunding to truly increase participation and democracy or if it is a welcome excuse to push forward neoliberal world views.

Conclusion

Civic Crowdfunding is an emerging trend in the US and in Europe. As a consequence of the increasing number of successful campaigns and newly launched platforms a diversification of Civic Crowdfunding can be observed. The development in the US seems to take a slightly different path than in Europe. While in the US, Civic Crowdfunding campaigns generally stand in the tradition of DIY-Urbanism and aim more for self-reliant neighborhood improvements in consultation with the public...
authorities, Civic Crowdfunding in Europe is increasingly used to apply pressure to the public authorities. It has been shown that the reason for this differentiation lies on the one hand in the different political and civic context, but historical incidents must also be taken into account. Differences can also be observed in the increasing institutionalization of Civic Crowdfunding. While in the US public authorities seem to have generally fewer reservations concerning citizen initiated Civic Crowdfunding, in Europe some governmental authorities start to institutionalize Civic Crowdfunding more strongly and to cooperate more actively with platforms and initiatives. The paper has also stressed the strengths of Civic Crowdfunding and pointed out the potential to enhance participation and foster democracy. Having said this, it is finally up to the cities to use the benefits of this instrument instead of seeing it as pretext to shift public responsibilities and funding to citizens.

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Semantic Analysis of Public Spaces in Brussels, London and Turin living labs: A Taxonomy of the Interventions

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Abstract. The aim of this paper is to conceptually transfer the knowledge about the domain of urban public spaces in three case-projects, into a hierarchical and interrelated semantic structure of micro-design interventions and their mutual relationships, providing definitions of the interventions themselves. Drawing on the Incubators of Public Spaces JPI Urban Europe research project, the paper sets the ground for a digital design tool, to support co-creative urban design processes.

The conceptual and operational instrument adopted for this purpose is the ontology, a method of knowledge representation and management coming from Artificial Intelligence. Ontologies, as branch of AI, are helpful to set the domain for a clear, simple and user-friendly representation of concepts and their relationships.

Incubators has developed the Taxonomy of Interventions based on the experience in three ‘living labs’ in Brussels, London and Turin. Each living lab had the opportunity to unfold its own particular and context-based configuration that can best support the local self-organisation of places.

Keywords. Semantic analysis; urban public spaces; living labs; taxonomy of interventions; classes and instances.

Introduction: Incubators Methodology

New developments in technology from Artificial Intelligence (AI) to online web interfaces, ‘dashboards’ of urban performance and visualisations of development proposals, have all opened up a great potential for users of the built environment to play a more active role in interpreting and proactively shaping their built environments. These developments not only pose technological challenges – in terms of design and management of human-computer interactions – but also raise questions of how those technological challenges are bound up with the aptitudes and inclinations of different kinds of user. Hence they are raising questions about who is able to make the most use of these technological processes, and how best they may be embedded in specific participatory planning processes.

This paper reports on the latest research from the Incubators of Public Places research project, a JPI Urban Europe funded project, which involves developing and applying an online platform for public participation in the design and redevelopment of public spaces in local neighbourhoods in Brussels, London and Turin. In these neighbourhoods, three living labs have been established.

Incubators aims to support the self-organisation of places, enhancing the factors that motivate, encourage and enable the urban actors to reach a common understanding and to coordinate actions by reasoned argument, consensus, and cooperation rather than strategic actions only. The means to this goal are information and communication technologies to advance the co-creation capabilities of urban areas.
The aim of this paper is to conceptually transfer the knowledge about the domain of urban public spaces in the Brussels, London and Turin Incubators ‘living labs’ (Veeckman et al., 2013), into a hierarchical and interrelated semantic structure of relevant micro-design interventions and their mutual relationships, providing explicit and unambiguous definitions of the interventions for their (re)generation.

The conceptual and operational instrument adopted for this purpose is the ontology – in its lighter form, the taxonomy –, a method of knowledge representation and management coming from AI. ‘Ontologies are often equated with taxonomic hierarchies of classes, class definitions, and the subsumption relation, but ontologies need not be limited to these forms’ (Gruber, 1993). In that a taxonomy represents classes and subclasses of relations, it can be considered a ‘simple ontology’ (McGuinness, 2002).

This approach aims to set the ground for a digital design tool, to support the participative urban design process. In doing so, this paper addresses a common problem in participatory processes: the users’ challenge in dealing and understanding the representative languages that are typical of architecture and planning. In turn, this difficulty can lead to a low quality and quantity of the users’ proposals.

Micro-interventions on neighbourhood public spaces are a very common practice, possibly further to the requests of the inhabitants, the maintenance needs, and so on. Pinpointed interventions may lead to an incremental process that, in the end, produces a lack of coherence in the overall design for a place. The Taxonomy of Interventions offers an alternative to conventional micro-interventions, by presenting a coherent overview of the interventions of various scales and budgets that can be flexibly bespoke and implemented on demand, giving the community the capability to control its own progress and ‘drive’ its own place.

Incubators has developed this Taxonomy through the establishment of and the experiences from three living labs in Brussels, London and Turin. These were aimed to explore the type of micro-interventions that are aspired by the involved stakeholders. As such, each living lab had the opportunity to unfold its own particular and context-based configuration that can best support the self-organisation of places.

This paper first introduces the three case-project locations (section 1), then explains concepts relating to classes of interventions and how those are structured in taxonomies within the system (section 2); finally, we discuss how the cases are interpreted in terms of those classes (section 3).

1 Case-projects

Figure 1
a) Brussels, b) London and c) Turin case-projects
Brussels case-project: Josaphat

The Brussels living lab is located at the Josaphat site (Figure 1a). This 30ha big area is a Zone of Regional Interest, which is currently being planned to become a new sustainable neighbourhood in order to tackle the housing shortage in the Brussels Capital-Region (BCR). The Josaphat site is property of the Urban Development Corporation (SAU-MSI), which is the public operator entrusted with the operational implementation of the strategic areas in the BCR. A strategic masterplan for the Josaphat site has been approved by the Brussels Regional Government in 2014 and has since then been adapted to improve the plans. Under the motto ‘Living and working in a park’, it is the ambition to realise about 1600 dwellings and 9ha of urban industrial zone, with addition employment-generating activities such as local shops, a hotel and offices. By 2030, the Josaphat neighbourhood, with at least 7ha of green space, should be complete.

While the planning of the Josaphat site is further advancing the former railway marshalling yard has been cleared, leaving an open space of 24ha available for nature to take over while the site is awaiting its future development.

In parallel to the official planning process, the citizen collective of Commons Josaphat has emerged, which aims to embed the principles of the Commons at the Josaphat site. This collective has developed a co-creation process that resulted in a supported proposal for the future of the Josaphat site as an Urban Commons (Commons Josaphat, 2015).

Furthermore, other citizen collectives have been using part of the enclosed but accessible wasteland as breeding ground to develop community-initiatives. There is a mobile kitchen (Recup’Kitchen) that aims to bring people together around sustainable food, a collective neighbourhood garden (Jardin Latinis) that is –among other activities– experimenting permaculture, et cetera.

These activities have been self-organised by citizens and aim to manifest aspired values such as respecting the natural resources, creating a place for experimentation and social cohesion, and realising a commons within a convivial atmosphere (Commons Josaphat, 2016). These activities are being tolerated by the SAU-MSI that plans to launch an official call for transitory use of the site in spring 2017.

The Josaphat site, as such, forms an interesting case to experiment how the Incubator tool can support the current and future uses of Josaphat and the inclusion of the aspirations of the citizens as well as the public stakeholders.

London case-project: Pollards Hill

Pollards Hill is a suburban residential area in outer London, to the south west of the borough of Merton, at the boundary with the borough of Croydon (Figure 1b). Our case study is focused on the Pollards Hill housing estate, comprising some 14ha of land and over 846 homes. The development, which may be described as ‘low rise, high density’, generally compact flat-roofed housing blocks, of three storeys, comprises a mix of flats and houses with gardens (Merton Council, 2014).

The housing estate, built during the 1960s and 1970s, was originally imagined as a model for contemporary social housing. The physical form is characterised by a series of housing blocks in a distinctive rectilinear ‘Greek key’ layout. With this zigzagging configuration, there is a series of interlocking ‘closes’ and ‘courtyards’, the closes being vehicular service areas, giving access to parking and garages, and the fronts of the houses, while the courtyards are green spaces at the backs of the houses. The housing blocks are bordered all round by green spaces and service roads. There is a community/youth centre and library and children’s play area nearby.
An interesting feature of this interlocking format is that each house is generally associated with one close at the front, and one courtyard at the back, but each close features houses associated with different courtyards, while each courtyard is associated with houses belonging to different closes. This has the operational consequence, when it comes to resident participation, that those participating in the (re)design of courtyards come from different postal addresses.

Originally, a council housing development, part of this estate, was transferred to Moat housing association in 1998 (Merton Council, 2014). Moat are currently the principal actors involved in the overall management, regeneration and refurbishment of the estate, including managing processes involving and affecting both private and social housing.

Following consultation with residents and in collaboration with the Council in 2014-15, Moat has developed a regeneration strategy including a master plan and £20m investment for providing 1000 new and refurbished houses and flats, including some new buildings and also some demolitions, to create some new spaces shaped by those new buildings and demolitions. As well as providing upgrades to the fabric of buildings, this also allows scope for introducing new features in the landscaped areas. These interventions are intended to address some of the problems of the existing estate, and improve its image and identity and how it functions. The improvements include making the estate more legible and accessible by creating new routes across the estate, by introducing different character areas and greater sense of enclosure within the landscape and by making better use of the available external space.

Turin case-project: Mirafiori Sud

The site selected for the Turin case-project is Quartiere Mirafiori Sud (Figure 1c). Built since the mid-Sixties in the southern outskirts of the city (Ges.Ca.L., 1966), it consists in a social housing neighbourhood of high-rise apartment buildings. Slabs and towers from eight up to eleven floors high cover an area of more than 40ha, for a total of about 2,700 dwellings and 6,000 inhabitants.

Originally conceived to provide housing to the workers of the neighbouring FIAT automobile plants, Mirafiori Sud is undergoing today a period of major transition. Following the socio-economic shifts that affected the entire city in the last few decades, the neighbourhood went through a process of urban decay from which it has begun to recover only in recent years.

In some ways overlooked by the wave of urban regeneration and redevelopment projects that crossed the city of Turin since the mid-Nineties (Città di Torino, 2005), Mirafiori Sud has suffered from decreased number of residents, declined real estate values, downsized public and private services.

Thanks to the resources that the recently funded ‘AxTO project’ will allocate to the area (Città di Torino, 2016a), things are expected to change. Of the 44 actions to be implemented over the next 3 years in the fields of Public space, Housing, Jobs and Innovation, Education and Culture, Community and Participation, some of them are expected to positively impact on Quartiere Mirafiori Sud (Città di Torino, 2016b). From physical interventions – e.g. the emergency maintenance of roads and sidewalks, renovation of open spaces, emergency maintenance of the covered marketplace – to social innovation – e.g. active citizenship initiatives – a wide range of actions is going to support the regeneration.

Within this framework, the Incubators project aims to provide an innovative governance tool for the future of the neighbourhood. Through design workshops and other living labbing activities, it seeks to engage local stakeholders in the definition of collaboration and self-organisation scenarios for the rehabilitation of public spaces and buildings.
In this regard, the application of the ‘Regulation on collaboration between citizens and the City for the care, shared management and regeneration of urban commons’ (Città di Torino, 2016c) to one of the underused or abandoned assets that exist in the area seems a foreseeable outcome of the Turin case-project.

2 The Taxonomy of interventions as analysis and design tool

The *Incubators* system includes a tool for designing of specifying interventions in the urban fabric (for example, adding anything from a bench to a whole park; or in principle, moving existing elements around) and an online platform which allows public users to access information about the site, and to remotely and interactively make proposals for such interventions.

Within the *Incubators* system, the *Taxonomy of Interventions* groups the main typologies of interventions in the design of public open places. To its definition, the review of a wide body of published research has contributed to identify common uses or characteristics of open places.

In the Taxonomy, each *Class* is composed by single interventions (*Instances* in the broader definition of a generic ontology), directly related to the elementary component in open space design (Figure 2). To the extent that urban design can attempt to be a single unitary process, the paper focuses on the contribution of the *classes* and *instances* of intervention to transform open spaces into high-quality public places.

A good understanding of urban design methodologies and advanced software tools is needed to deal with the multiple factors that influence open space. The breakdown of spaces in Classes and Instances is functional to the development of the *Incubators* software tool.

From a general point of view, a *taxonomy* can be organized starting from different directions: therefore, top-down, middle-out and bottom-up methodologies of knowledge engineering are identified. Another important issue is the type of sources used to extract knowledge (ontological learning), i.e. from texts, thesaurus, databases, case studies, and so on (Roussey et al., 2011).

The *top-down* development process (Sowa, 1995) starts, in general, with the definition of the general concepts in the domain, and proceeds with the specification of the concepts. This approach is wholly justified in the context of very theoretical and philosophical fields for which there is a consensus about the most general categories.

In the *bottom-up* approach, the specification of an object is in terms of indivisible units and their interactions that constitute the fullest possible description of the object (descriptive aspect), and allows derivation of all other properties of the object (explanatory aspect) (Van der Vet & Mars, 1998). The bottom-up development process starts with the definition of the most specific classes, the leaves of the hierarchy, with subsequent grouping of these classes into more general concepts. This approach helps to provide ontologies with a very high level of detail. The main drawbacks of the bottom-up methodology are the unsuitability for the task of merging already conceived ontologies into the current one and the risk of inconsistencies.

The trade-off solution between the top-down and bottom-up approaches is the *middle-out* initially proposed by Uschold and Gruninger (1996): starting with the most important concepts, and then defining higher-level concepts and lower-level concepts. Thus, the higher-level categories will naturally arise and are more likely to be stable than with the top-down approach. Furthermore, by specializing the basic concepts with new concepts of finer granularity, the middle-out approach strikes a better balance in terms of the level of detail compared with the bottom-up approach, since it arises only as necessary.

In fact, the middle-out approach is probably the nearest to the method we used to compile the taxonomy covered in this paper. In the writing of the ontology, we firstly
defined the more salient instances, starting from the analysis of each case study, and
with the support of the scientific literature reference and the analysis of selected best
practices. After identifying the instances, we generalized and specialized the
superclasses and subclasses respectively (when existing). E.g. the instance ‘Paving’ is
organized in the superclass ‘Landscape design interventions’, and can be specialized in

Following the analysis of other case studies, further Classes and Instances can be
added, implementing the taxonomy.

---

3 Interpretation of the case-projects through the Classes

The first step in the case-studies analysis involved the assessment of the consistency of
the Classes that make up the Taxonomy: thanks to the direct experience of places, the
presence of each Instance has been ascertained and their recurrence interpreted as an
index of the complexity – therefore in some way of the quality – of the related Class,
and of the case as a whole.

---

Figure 2
Taxonomy of Interventions (blue: Classes; green/white: Instances)
The idea is to employ a simplified quantitative analysis method to verify the quality of an open public space, identifying strengths and weaknesses. The goal is to define a clear and intelligible framework to work on with the inhabitants; this kind of scheme allows stressing and selecting some features of the existing open space, where to positively focus the co-creation activities.

Josaphat: current status and project

In agreement with the public owner of the site (SAU-MSI), it has been decided to focus on a small part of the to-be developed Josaphat site. For this, an area of around 3ha has been chosen which is situated to one of the few access points to the site. This part of the terrain will first be developed and is most linked to the surrounding neighborhoods. Currently this part of the Josaphat site is already claimed through mainly informal uses that will be integrated in the official organized temporary use of the site.

The SAU-MSI has, in interaction with the involved governments, developed a framework for the type of interventions that are desired. Crucial aspect in this is the need of the proposed activities to be transitory; interventions should be able to be integrated in the plans that are being developed or have to be able to move to other places in order to guarantee their continuation (Table 1).

<table>
<thead>
<tr>
<th>Class</th>
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<tr>
<td>urban park and garden arrangement</td>
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<td>street furniture elements</td>
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<td>sports, playgrounds</td>
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Key: 0 = absence; * = low presence; ** = medium presence; *** = high presence

Table 1
Brussels case-study: Classes survey

Participants’ contributions in the Brussels case

At the Brussels case, an action research methodology has been used. Through active participation in and contribution to the ongoing creation of temporary uses, different workshops have been organised to bring out the needs and aspiration of the civic actors that are involved. An interactive postcard exhibition invited people to appropriate already existing ideas and to propose new interventions. A round table meeting asked citizens to express the projects they see possibly developing and resulted in a framework of five main values (Bollier, 2016) that are proposed to be taken into account. Furthermore, the list of interventions that is developed for the temporary use of the Josaphat site was further informed by a series of loose interviews and everyday discussion on-site. Currently (March 2017) a listing of the aspired micro-interventions is being discussed with the local partner Bral (Stadsbeweging voor Brussel, Citizens Action Brussels).
Pollards Hill: current status and project

Improved pedestrian connectivity across and through the site is one of the key objectives of the regeneration proposals at Pollards Hill.

A new route that is shared between pedestrians and residents getting to their property by car is introduced around Donnelly Green serving primarily the new buildings. This route is connected back through to the existing parking Closes where existing blocks are demolished.

Elsewhere the pedestrian paths are upgraded with new surfaces and lighting. The narrow and concealed paths to existing bin stores are stopped up and alternative, more open and overlooked, routes created. Clearly defined paths will connect the residential areas to key destinations such as bus stops on South Lodge Avenue, play facilities and the existing Community Centre and Library (Figure 3).

Figure 3
Pollards Hill: a) status and b) project

The landscape design for the Courtyards introduces new activities and visual amenity to the courtyard gardens, and reduces the scale of the space by dividing into smaller spaces with different uses. It improves sense of ownership and strengthens visual connection between courtyards and back gardens.

Each Courtyard is proposed (1) to have its own planting and material palette to create individual character; (2) to enhance gardenesque feel and style and reduce scale by introducing tree planting to the existing embankments where gradients allow; (3) to retain but reduce the size of the open lawn area, and (4) clearer ownership of garden space to create a village green character for the surrounding Closes.
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Table 2
London case-study: Classes survey

Participants’ contributions in the London case

A central part of the London case study is a multi-faceted deployment of the technology to facilitate the micro-interventions. The process is on-going in parallel with a more traditional public consultation process, facilitated by the onsite Landscape Architects. The aim is to explore if using these ontologies allows the public at large to achieve a suitable level of design thinking.

A core consideration is the ability of the public to interact sufficiently with the provided tools. As such, a ‘consultation house’ is being set up as a central hub of the intervention. The house will allow the public the ability to drop in and have a say in the consultation during the active period. It will include a computer running the Incubators system, linked to an online version where users can design, submit and vote on interventions.

The integration of a 3D visualisation as part of the system provides a key differentiator between the other case studies, it also opens the opportunity for more innovative design techniques. As such, the aim is to explore the use of the Microsoft HoloLens, in co-ordination with the Turin group, for aiding the participative urban design process (Figure 4).

The London case-project comes at the end of the wider Incubators project and thus is still open to developments once the public consultation takes place, early summer, 2017.

Figure 4
Pollards Hill 3D model: a) in Trimble SketchUp and b) in Microsoft HoloLens
Mirafiori Sud: current status and project

As a result of several site surveys and stakeholder interviews, the Emilio Pugno Garden (Figure 1c and 5a) has been identified as the most suitable place to test the Incubators methodology in Quartiere Mirafiori Sud.

Located in a central position with respect to the investigated area, it represents a focal point for the neighbourhood’s life. In fact, despite the lack of a definite shape and a strong sense-of-place, it is widely regarded as the main ‘piazza’ of the neighbourhood.

In and around the square different uses take place. Of the four sides of the site, two are bordered by buildings: on the northern side, stands a three-floor service building, with some shops and public offices; on the western side, a seven-floor apartment building. The eastern side is dominated by the church and churchyard. Along the southern side runs a public road. At the centre, there are a green area with kid playgrounds, a small skating rink and a car parking.

With regard to the Taxonomy that has been defined, the Turin case-project appears quantitatively diverse: although to varying degrees across the Classes, a high number of Instances is present. The main problem is that such quantitative diversity is not directly related to quality. At present, many of the Instances that are part of the square are not deemed satisfactory by the interviewed residents and users. This is reflected in their underuse, or misuse.

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Table 3
Turin case-study: Classes survey

Within the framework of the aforementioned ‘AxTO project’, the City of Turin has drafted a regeneration project that aims at an overall improvement of the square (Figure 5b). The project is based on the installation of new street furniture (including tables, benches, deck chairs, cycle racks, garden pergolas) and on the provision of sport and recreation facilities (football goals, skate rails and ramps, concrete table tennis tables, play surfaces, garden chess boards). Bookcrossing points and murals are also envisaged.
Participants’ contributions in the Turin case

Based on the knowledge gained, a participatory process has been designed for the Turin case. The Classes and Instances were employed to define some pictorial ‘option cards’ with the possible interventions. The local community was involved in three design workshops with the goal to verify both the evaluation of the existing situation, and the adherence of the proposed project to the needs of the inhabitants.

From a methodology point of view, it is worth noting that participants contributed to the co-creative process not only by adopting the proposed intervention cards, but also proposing new ones. This allowed a refinement of the Taxonomy, with the introduction of further instances.

From the design point of view, the relevance of the selected space for the Mirafiori Sud community has been confirmed: the amount of cards played on the Emilio Pugno Garden outnumbers those played on any other area.

With respect to the ‘AxTO project’, no particular issues seem to arise. Participants’ contributions and suggested interventions mainly overlap, or at least do not contrast, with the City of Turin plans.

Two main differences can be mentioned. On the one side, the importance given to the skating rink. This paved area is seen as a potential gathering place, where different kinds of outdoor activities could take place (e.g. school/theatre performances, sport events). On the other side, the importance given to the bordering service building. All interviewees and participants stressed the need to repurpose its vacant premises in community spaces (e.g. party rooms, multipurpose halls).

Conclusions

The process is still ongoing; if replicated the use of the Taxonomy of Interventions allows easily comparing and evaluating different solutions. The experiences with the Incubators methodology in the Brussels, London and Turin cases are promising. It seems the taxonomy triggers discussions and helps explicating ideas.

Taxonomies and, in general, Ontologies, set the domain for a clear, sharable and reusable representations of concepts and their relationships. At any rate, they represent a knowledge base valid for a context and accepted by a group or a community, who could possibly reuse and adapt it for diverse design aims.
Acknowledgements

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Collaborative Place-Making in Mirafiori Sud

Participatory Co-Creation Strategies for the Design and Implementation of Public Spaces in the City of Turin

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Abstract. Mirafiori Si Rinnova is the Italian case study in the research project Incubators of Public Spaces, which aims to support the co-creation and self-organization of public spaces in the Mirafiori Sud neighbourhood, by involving its inhabitants and local stakeholders in exploring methods and procedures of participatory design.

The goal of this paper is twofold. Firstly, it illustrates the methodology and the general outline of the participatory process, based on a combination of face-to-face interviews with key stakeholders and a range of interactive workshops involving the main local actors. Secondly, it deals with the results of the fieldwork.

In a second moment of this project, the research output will be translated into physical scenarios and operating procedures and will form the foundation for further improvement. The final goal is to promote urban and social regeneration by stimulating a new consciousness in the local community and encouraging commoning practices.

Keywords. participation; urban design; place-making; public spaces; co-creation.

Introduction

Incubators of Public Spaces is a funded JPI Urban Europe Initiative, aimed at developing a new methodological approach to support co-creation processes for the design and implementation of urban spaces.

By observing the recurrence of informal experiences across Europe where spontaneous citizen-led initiatives are regenerating urban areas through the self-organization of places, this project aims to explore methods and procedures of participatory design in order to combine the bottom-up, open, creative place-making process with a top-down, more strategic attitude.

Within this framework, the Incubators of Public Spaces experience puts into practice participatory planning within three urban settlements in London, Turin and Brussels, favouring the contributions of the local inhabitants, and providing the means to grow and care for places through active co-creation.

The co-creative process involves a multitude of different social actors: decision-makers and local administrators; local communities, organizations and citizens; planners, architects, technicians; small business owners and large firms or company managers.
The paper is divided into three main sections. The first one provides some general information regarding the Italian neighbourhood case study in which the Incubators method has already been applied. The second one illustrates the methodology and general outlines of the strategies of the Incubators participatory co-creative process: it describes the running of the interactive workshops and provides an overview of face-to-face interviews with key stakeholders. The last section presents the results of the fieldwork. Conclusions offer early remarks concerning the next steps of the experimentation that is still ongoing in the neighbourhood.

Mirafiori Sud: Turin urban living lab

The Turin case study is Mirafiori Sud, a public housing neighbourhood, which was built by Ges.Ca.L Society (Gestione Case Lavoratori, “Workers’ housing management”) in the mid-Sixties. The area is located in the outskirts south of Turin, close to the Fiat Mirafiori factory, and covers about 300 hectares. The high-rise residential complex was built very rapidly to provide sufficient housing for the new population arriving from other Italian regions, thanks to the boom of the automotive industry.

In the Nineties the industry collapsed and the number of workers and inhabitants of the housing neighbourhood dropped more and more.

Today Mirafiori Sud is a poor peripheral settlement, made up of family houses, a few commercial facilities, some underused industrial areas and some degraded public spaces. The neighbourhood is facing some critical issues, for instance the aging of its community, the resulting absence of generational change and its spatial separation from the city centre, due to a lack of public transport and the loss of economic and social activities.

On the other hand, the social and cultural context presents some positive and suitable issues in developing citizens’ participation. The community still preserves a strong sense of cohesion and a sense of belonging to the neighbourhood, which mainly developed between the Sixties and the Seventies.

The area is now composed of a large number of empty flats and wide, underused, public and common spaces. These issues may be either negative aspects or potential resources for the regeneration of the Mirafiori Sud neighbourhood, depending on how the problem is faced.

Methods and procedures of the participatory design process

Although the neighbourhood of Mirafiori Sud in Turin is facing some critical issues - as mentioned in the previous paragraph - the project aims to actively engage its inhabitants and local stakeholders, inviting them to contribute their considerable knowledge and expertise to the co-creative process.

The empirical inquiry had four specific aims:

- to define and analyse the area through social sciences and participatory design tools;
- to investigate the complexity of interactions and relationships among stakeholders, and between stakeholders, instruments and spaces;
- to identify the main local needs, desires and motivations according to all different typologies of social actors;
- to encourage a participatory attitude of citizenship in the regeneration of public spaces, favouring the improved wellbeing of local residents and the public spaces in which they live and work.

Specifically, our fieldwork started in spring 2016 and initially involved some in-depth interviews with key local stakeholders. These interviews helped us build up a
better knowledge of the context in which to co-create a participatory process, developing a future scenario for regenerating the district.

The aim was to compare the various opinions and ideas and to stimulate a participatory attitude among the local civil society.

The second tool, Planning for Real, is a method that not only involves stakeholders but citizens overall. Three PFRs were undertaken in our case study, and the main goals were to expand participation and encourage a ‘shared planning’ approach, while also achieving a common vision.

**Face-to-face interviews**

In-depth interviews consist of one-to-one dialogues, which may be defined as a more or less structured conversation between an interviewer and an interviewee. In this case, 16 in-depth semi-structured interviews were conducted, in order to allow a certain amount of flexibility and a deeper analysis of the context.

The main goal of this tool is to explore the different opinions, perspectives and expectations of the most representative subjects of local civil society, in relation to their ideas of the area and their proposals for a future regeneration of public spaces.

In general, an in-depth interview is a useful method to collect qualitative data, in order to obtain detailed information about a particular topic; it is used when we need to investigate a specific context without sufficient data about it.

In our case, these interviews undertaken with key stakeholders allowed us to step into their shoes and see the neighbourhood through their eyes.

After selecting the interviewees, an interview guide was set up. The questions were exclusively open-ended and we were aided in our talks by two different scale maps of the area, and pictures of five local public spaces (a small square, a children’s play area, a market area, a carpark, and a park).

The interview guide was made up of three parts, ranging from general topics to more specific ones.

1. **General overview of the area:** in this first part, we asked for an overall description of the whole Mirafiori Sud neighbourhood (its main features, strengths and weaknesses, its borders and the various potential sub-areas with their own different characteristics: functional, symbolic, etc.);

2. **Analysis of the public space:** this part is divided into two sections; in the first one we only considered the project’s area, on a smaller scale, and asked the interviewee to imagine a journey through the neighbourhood, showing the most significant public spaces; in the second one we showed the stakeholders five pictures of different local public spaces within the area, to collect specific data on their influence or relevance, main use and activities, features that could be improved;

3. **Participatory actions:** in this last part, we asked the stakeholders what they would do to regenerate local public spaces and if they could give us some ideas on how to involve citizens and civil society.
Interactive workshops

The main aim of the interactive workshops is the co-creation and co-design of scenarios for the future regeneration of public spaces in the Mirafiori Sud neighbourhood involving the main local players: local communities, organizations and citizens, but also local administrations and policy-makers.

The method used in this part of the participatory process is based on a particular urban design method, “Synoikos Scenario Workshop”, developed at ETH Zurich by Oswald and Baccini, and part of the “Netzstadt” design approach (Oswald & Baccini, 2003; Cox et al., 2014).

Synoikos (a Greek term meaning ‘cohabiting’) is a: “participatory process allowing participants to formulate development strategies and initial project ideas. The method provides tools to encourage participants to assess their environment, to explore desired projects for the future and to cooperate when projects need to be implemented. However, the method is adapted to meet the specific social and spatial context of the site” (Cox et al., 2014). The purpose of the Netzstadt-Synoikos approach is the continuous transparent interaction between the research group work and the player sessions.

In this case, the player sessions refer to a specific type of workshops, so-called “charrettes”. This term refers to a multi-day (normally 3–5 days) workshop involving professionals from different disciplines and users in a very short and intensive design process (Lennertz 2011).

Considering the Mirafiori Sud context and the project’s goals, the research group opted for three different workshops involving citizens and local stakeholders, conducted through a traditional participation technique: “Planning For Real”. The three workshops took place from May 2016 until October 2016, each meeting lasting more or less three hours.
Planning For Real is a type of design simulation method used to simplify the complexity of problems affecting a marginal urban area such as Mirafiori Sud, to help a community to improve its environment with alternative scenarios and to turn ideas into practical actions. Through this tool we were able to fulfil the main goal of the Incubators project - the co-creation of public spaces - and it allowed the technical knowledge of the research group to merge with the local knowledge of the community.

It is built “around a community-assembled model on which problems and improvements are identified through pictorial ‘option cards’. The model and the cards have several underlying purposes: they overcome the difficulties of verbal communication by providing an ‘alternative currency’ to words as a means of exchanging views and information” (Gibsen, Neighbourhood Initiatives Foundation 1995).

These workshops gave us the opportunity to test the “option cards” with citizens and local stakeholders, designed as project proposals in response to the needs identified during face-to-face interviews with key stakeholders.

Three tools were used during the working session:

- A 3D model of residential and public buildings of the area at a scale of 1:500. It was built by the research team, to allow a broader perspective and provide a common reference and physical base for making suggestions (Gibsen, 1995).
- A plan of the area at a scale of 1:500.
- Several pictorial “option cards” with thirty-one types of intervention for the neighbourhood (physical projects for public spaces, management activities, activities on commercial and public services, etc.).

Each workshop was conducted by facilitators and was generally developed in four stages. In the first part a facilitator introduced the activities and explained the game rules, objectives and process to the participants. Secondly, each participant individually placed suggestion cards on the model according to his/her own needs. Thirdly, participants collectively discussed some issues regarding public spaces.

The main topics discussed can be divided into three categories: current and future usability of public spaces; the types of spaces (common, public, private) and their accessibility; the quality and use of public spaces.

In the last stage the participants prioritised suggestions and summarized the issues with the help of the research team and together they tried to find some suitable design scenarios - according to costs, benefits and responsibilities - in order to identify the most urgent and priority interventions for the community.
Fieldwork results

The face-to-face interviews highlighted some strengths and weaknesses of the Mirafiori Sud neighbourhood.

In particular, the sense of belonging to the place and social inclusion are, according to the stakeholders’ opinion, a specific characteristic of the community, as well as the presence of local organizations. Symbolically, the bond with the Fiat factory appears to be very strong.

A lack of commerce and services, its material separation from the city centre, and the perception to live in a “dormitory town” were those weaknesses most mentioned by the stakeholders.

In any case, several interventions are needed to regenerate the area, in order to allow a future for new generations and inhabitants: no huge interventions, but punctual and well-targeted micro-interventions on public local spaces.

In general, the image of the past is a little idealized: some of those interviewed, especially the oldest citizens, told us about how the neighbourhood was born in the Sixties and Seventies, while the youngers talked mostly about the Nineties, when the area was socially degraded, with many crime and drugs cases, as well as about the economic crisis which started in 2008 and the consequent unemployment that has led to a reduction in income for the inhabitants.

The present picture given shows the separation of the district from the city centre, the lack of commercial activities, services, and recreational places, of extreme importance to favour an effective generational turnover and the increasing presence of students.

In a future perspective, the stakeholders wish to revitalize the area and to create new spaces in order to make the neighbourhood more attractive.

More detailed suggestions for the five different spaces shown in the interviews, although some of these public spaces were not so popular among our interviewees: the most representative ones were the market area and the green space close to the so-called...
“public square”, in front of the church, in the middle of the project area. In most cases, these spaces have no defined borders.

The most common request concerns the regeneration of the whole central common space. Proposals for future use were disparate: community gardens, recreational activities, fitness areas, entertainment and event areas, temporary shops, sport areas and so on.

In conclusion, it is possible to affirm that the inhabitants mainly wish to have somewhere to gather and cohabit, in order to re-create a sense of belonging giving new opportunities to young generations and attracting people, in order to revitalize a neighbourhood that has such symbolic importance for the entire city.

Involvement and participation in the workshops was generally positive, even if only a few key selected stakeholders were involved in the initial phase.

The number of participants remained stable during the three meetings. About 20/30 people (citizens, organizations, representatives of local associations and cooperatives, local administrations and policy makers, etc.) were involved. Participants were heterogeneous, in terms of different features: gender, age, country of origin (new inhabitants) and typology of players. The second and third workshops were mostly attended by children and young people, while mostly adults and the elderly took part in the first workshop. Against initial expectations, it was young people who were more actively and directly involved in improving conditions in the Mirafiori Sud neighbourhood.

The structure of the meeting and the techniques and tools used varied significantly during the events, related to the number and ages of the people involved and to the issues and needs of the participants.

The three events did not succeed in defining the responsibility of each intervention and scenario: or rather the “authority” (public administration and decision makers, groups of citizens, associations or single individuals) that could assume responsibility to implement proposals and actions resulting from the “scenario workshops”.

The first workshop took place on 22nd May 2016 in the M. Ribas study hall in a public space in the centre of the area, managed by a local association and well-known in the neighbourhood.

If we look at the list of key stakeholders invited to the public events, only a group of inhabitants and representatives of local associations that work and live in the neighbourhood participated. It was a high-structured workshop developed in two main stages. Firstly, participants chose one ‘option card’ and chose some specific public spaces in which to direct the activity and explained their own wishes and motivations. Secondly, following public discussion with the help of facilitators, each participant was able to make some changes and even change his or her ideas according to others’ opinions. The second stage was useful in finding joint motivation to focus on some specific spaces and to define the costs of the interventions.

Three main scenarios were chosen:

1) all participants agreed that the neighbourhood needs a “square”, now located in the open area in front of the local parish, that would mean a central place identified by the community as “the heart” of the area and the everyday life of the inhabitants, a “flexible” open public space in which temporary events and activities for all inhabitants and city users could be held.

2) the redevelopment of a green, underused, marginal field, improving it from a functional and aesthetic point of view, according to different scenarios: redesigning
it as a public playground or developing some community gardens or strengthening the whole area with a new public transport station.

3) redesign the main playground.

The second workshop took place on 20th July in a room of the local parish during a summer camp. In this particular case, participants were selected by an external animator that chose a group of children, aged from ten to thirteen. The event only lasted one round and followed the same procedure as the first meeting. Some needs and interventions mentioned overlapped with the issues of the first workshop. The most shared scenario was the need for a “square”, but also some new proposals came out, such as the improvement of public lighting, the need for a collective swimming pool, new local shops and public services. The third workshop took place in October 2016, during a community public event in an open public space of the neighbourhood.

Participation and involvement was in this case spontaneous and without formal invitation. Since it was not possible to organize and explain the rules of the game, any specific design scenarios were defined, but the research team tried to understand the needs and motivation of the participants represented by some citizens, adults, children, foreign Politecnico students and representatives of local associations.

If we look at the result of the working sessions, it is important to emphasize how the majority of the public spaces discussed during the three workshops differed from those selected by the research group and discussed during the campaign interviews.

Planning for Real allowed the community to think about new design scenarios to regenerate the neighbourhood, instead of only thinking of some micro-scale interventions as key stakeholders interviewed stated during the interviews.

Conclusion

What transforms an urban empty space into a public and socially resilient place is the interaction of people who inhabit that space. And, of course, the integration of spatial forms - both constructed and open - that favour such social interaction.

This research, in collaboration with practitioners and local stakeholders, aimed to explore those factors that could motivate, encourage and enable citizens to take care of their public spaces, starting from their own different perceptions and the different use they make of them.

By consulting citizens and key stakeholders, the project pushed forward these challenges by involving co-creation in the making of public spaces by and for people, and in doing so, it thus has the potential of shaping urban policies and practices.

Later on, in a second step of the project, the research results coming out of the interviews and the interactive workshops will be translated into physical scenarios and operating procedures and will lay the ground for further improvement.

The final goal is to stimulate and develop a new consciousness in the local population, in order to implement the self-organization of places and to encourage their interactive shared use.

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Measuring the Impact of Future Visions through Card Sorting
From User Experience to Participatory Planning (a Pilot Study)

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Abstract. During the 20th century, several top-down urban visions were proposed by distinct stakeholders interested in urban processes, and some of those visions were actually planned, built, and can be experienced today as best practice examples of urban planning around the world. While some of those top-down visions for cities allowed global innovations in such fields as politics, economy, and urban planning, they also triggered a reaction of bottom-up approaches that promoted local and neighbourhood engagement, which can be traced until today. Furthermore, new generations of researchers and practitioners continue to advance the field of urban planning, in order to determine its present and future impact. How can we measure the impact of future urban visions? Which evaluation methods, from such fields as cognitive sciences and human computer interaction, could advance participatory planning processes for public spaces in local contexts? In this paper, we describe a pilot study that aims to experiment evaluation methods of public participation for future urban visions. We present methods and results of this study with postgraduate students from distinct disciplinary backgrounds at Northumbria University (UK), and we discuss further methods to measure the impact of future visions. Finally, we sketch further work supporting creativity within participation processes for tomorrow’s cities.

Keywords. Cities; creativity; evaluation methods; public spaces; urban visions.

Introduction

During the 20th century, several top-down urban visions were proposed by distinct stakeholders interested in urban processes. And some of those future visions were actually planned, built, and can be experienced today as best practice examples of urban planning (see for example, Hall 2014, 1998, Dunn, Cureton, and Pollastri 2014). In fact, Hall (1998, p.2) argued that: ‘[m]uch if not all of what has happened - for good or for ill - to the world’s cities, in the years since World War Two, can be traced back to the ideas of a few visionaries who lived and wrote long ago (…),’ such as Ebenezer Howard, Le Corbusier, and Frank Lloyd Wright. Either utopian or dystopian, when those ‘(…) visions were discovered and resuscitated, their implementation came often in very different places, in very different circumstances, and often through very different mechanisms, from those their inventors had originally envisaged’ (Hall, 1998, pp.2-3, see also Fishman 1977, Jacobs 1961).

While some of those top-down visions for cities allowed exceptional innovations around the globe, in such fields as politics, economy, and urban planning, they also triggered a powerful reaction of bottom-up approaches that promoted the engagement of local and neighbourhood communities, which can be traced until today (Allmendinger and Tewdwr-Jones 2002, Fishman 1977, Jacobs 1961). For example, Jacobs (1961) defended that ‘[n]o other expertise can substitute for locality knowledge in planning (…),’ thus arguing that ‘[t]he invention required is not a device for coordination at the general[is]ed top, but rather an invention to make coordination
possible where the need is most acute - in specific and unique localities (…’), thus laying the ground for grassroots participation in urban planning.

Furthermore, a new generation of researchers and practitioners continues to advance the field of urban planning, in order to determine its present and future impact (see for example Caneparo and Bonavero 2016, Marshall 2016, Van Reusel et al. 2015, see also Krukar, Dalton and Hölscher 2016, Greenhalgh and King 2013).

How can we measure the impact of a future urban vision? Which user experience evaluation methods, from such fields as human computer interaction (HCI) and cognitive sciences, could advance participatory planning processes for public spaces in local contexts? In the following sections, we describe an ongoing pilot study that aims to experiment evaluation methods of public participation for future urban visions. We present methods and provisional results with postgraduate students from distinct disciplinary backgrounds at Northumbria University (UK), in order to evaluate participatory visions for the future, applied to the city of Newcastle-upon-Tyne in the North East of the United Kingdom, though potentially being transferable to other cities in Europe. Finally, we also discuss potential methods to measure the impact of future visions, and we sketch further work focused on the role of creative skills development within participatory planning for the cities of tomorrow.

Methods

Participants

31 participants were recruited via a call at several postgraduate students’ offices, in the four Faculties that make up Northumbria University, and each received a small compensation for the individual 10-minute study. In this experiment, the participants’ genders were 55% female (n=17) and 45% male (n=14), and a variety of ages between 22-45 years old, where: 19% (n=6) were between 18-24 years old, 38% (n=12) were between 25-30 years old, 26% (n=12) of them were 30-35 years old, and approximately 17% were 36-45 years old.

Although all postgraduate students, the participants had distinct disciplinary backgrounds. Most were studying in the Faculty of Engineering and Environment, specifically in the following Departments: 29% (n=9) Architecture and Built Environment; 19% (n=6) in Computer and Information Sciences; 13% (n=4) in Geography; 13% (n=4) in Mechanical and Construction Engineering; other participants were studying in the Faculties of Health and Life Sciences 16% (n=5) and Arts, Design and Social Sciences 10% (n=3).

Concerning the country of origin, the sample also reflects the global community at Northumbria University: approximately one third of the participants (n=9) were originally from the United Kingdom, and approximately two thirds (n=22) from overseas (Algeria, Brazil, Chile, China, Egypt, France, Germany, Greece, Iran, Ireland, Italy, Japan, Lebanon, Nigeria, Poland, Syria, Taiwan and Vietnam). Nonetheless, only 16% (n=5) were born in Newcastle-upon-Tyne metropolitan area, i.e. locals, while the others were living in the area only for a temporary period, i.e. between 6 months and 5 years, corresponding to their studies.

Materials and Tasks

A moderated/in-person ‘card sorting’ using physical cards was conducted individually with each participant, divided in three similar tasks, in order to categorise the ‘prototype’ 24 card set on a table (see figure 1), with a ‘thinking aloud’ protocol.
Figure 1
Examples of card sorting per categories on tasks 1 Local / Global (top) and 3 Past / Future (below)
With roots in the cognitive sciences (e.g. Rorschach test and Wisconsin card sorting test), and perhaps even in the ancient traditions of fortune telling, card sorting is a widely accepted research method in HCI to inform the design and/or to evaluate the ‘information architecture’ (IA) of a website. Righi et al. define IA as ‘(…) the practice of effectively organizing, structuring, and labeling the content of a website or application into a structure that enables efficient navigation. Card sorting is a research method that employs users’ input to help derive an effective navigation structure’ (2013, p.69). With multiple variations between open or closed sort, physical or digital cards, overall in a common card sorting session participants are asked to organise topics into categories, which have meaning to them (Righi et al. 2013, see also Hudson 2005, and ARUP 2000, www.driversofchange.com/tools/doc/:Feb 2017).

Previously, a survey of emerging trends in urban studies and planning was conducted, identifying climate and demographic changes as the greatest challenges for cities and their multicultural populations (Henriques 2017). And that trend survey on urban studies informed the design of this particular ‘prototype’ 24 card set, and provided hints for the pairs of categories for each of the tasks:

Task: Local and Global;
Task: Services and Built Environment;
Task: Past and Future.

As previously mentioned, the participants were invited to think aloud while sorting, and debriefed of doubts. Within the flowing dialogue between participant and researcher, two additional questions were asked, concerning mode of transport used daily to arrive at the University and preferences of text/image descriptions.

Results

Quantitative data

Firstly, the data were analysed in a summation of cards per categories matrix (see table 1), and corresponding visualisation of top sorted cards (see figure 2).

<table>
<thead>
<tr>
<th>SUM CARDS PER CATEGORIES</th>
<th>LOCAL</th>
<th>GLOBAL</th>
<th>SERVICES</th>
<th>BUILT ENVIRONMENT</th>
<th>PAST</th>
<th>FUTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Information Literacy</td>
<td>5</td>
<td>11</td>
<td>-11.75</td>
<td>2.75</td>
<td>3.5</td>
<td>8.75</td>
</tr>
<tr>
<td>2Information Literacy</td>
<td>-7.5</td>
<td>2.5</td>
<td>2.25</td>
<td>-2.25</td>
<td>4.5</td>
<td>12.25</td>
</tr>
<tr>
<td>3Local Vs. Global</td>
<td>-7.5</td>
<td>7.5</td>
<td>-2.25</td>
<td>2.25</td>
<td>-2.25</td>
<td>8.75</td>
</tr>
<tr>
<td>5Past Vs. Future</td>
<td>11.25</td>
<td>11.25</td>
<td>11.25</td>
<td>11.25</td>
<td>11.25</td>
<td>11.25</td>
</tr>
</tbody>
</table>

Table 1
Summation of cards sorted per categories on tasks 1 Local / Global, 2 Services / Built Environment, and 3 Past / Future (provisional results for 2/3 of the sample group, 20 February 2017)
Figure 2
Top sorted cards per category by the participants, for the tasks 1 Local / Global, 2 Services / Built Environment, and 3 Past / Future (provisional results for 2/3 of the sample group 20 February 2017)
This allowed to identify and to visualize the most sorted cards (for both text description and image), and the least sorted. Furthermore, it is possible to recognize correlations of cards appearing most and least often for the 'prototype’ set, and transversally within the categories from all three tasks.

**Qualitative data**

The moderated/in-person ‘card sorting’ using physical cards, with a ‘thinking aloud’ protocol, allowed the collection of additional qualitative data: the observation of choices and the debriefing of doubts while the participant is sorting (and a more engaging experience for the user, participating in the formation of a collective vision). For the researcher it is less clear to observe the mental model of the participant(s): although this observation is always subjective, there are hints of positive results to encourage creativity sparks for complex problem solving in participatory processes.

**Discussion**

The provisional results of this ongoing pilot study show a promising path to incorporate HCI methods for medium and long term urban design, in order to build a collective and mutually agreed vision, as opposed to the visionaries of the last century who aimed to impose their individual 'vision’ to society. Caneparo and Bonavero mention Carmona’s use of “the term ‘vision’ […] being understood as the purpose of the design process” (2016, p.207). As in mental models, traditional plans and other allocentric representations could be complemented with user centred representations: images and text descriptions to share a common mind set between distinct academic backgrounds, cultures, and values within an urban design process (see figure 3).

![Figure 3](image-url)

*Figure 3*

Experimenting the design of the 'prototype’ card set with image/text descriptions
How can we advance the field of urban planning by adapting methods from user experience to participatory planning? Perhaps by adding spatial and temporal dimensions, interactively, such as geographical mapping, timelines, and data mining from collective databases and other social media, incorporating technology from a human perspective: for centuries, cities have been the most effective social media.

Conclusion and further work

In this paper, we described an ongoing pilot study that aims to experiment evaluation methods of public participation for future urban visions, utilising the card sorting method from the field of human computer interaction, within a user-centred creation/evaluation for the city, combined with creativity evaluation techniques. We presented our mixed methods approach and provisional results of this experimental study with postgraduate students from distinct disciplinary backgrounds at Northumbria University, such as Architecture, Computer Science, Criminology, Design and Neuroscience: our quantitative analysis approach opens a path that can be not only automated, but also augmented with qualitative data collected by experienced researchers. We also briefly discussed other complementary methods for participatory processes of future visions, namely geographical mapping, interactive timelines, and data mining.

Further work will support creativity within participatory planning for tomorrow’s cities, both for new generations of planners, stakeholders and communities: sketching a collective vision to successfully navigate from the past and present time to the near/far future.

Acknowledgements

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Live Lab, a case study in Eindhoven, tools for participation

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Abstract. This article gives an impression of the start of one of the winning projects of an EU Tender iCity in Eindhoven, the Netherlands named Live Lab. Live Lab is a virtual and physical platform for sharing knowledge, ideas and experiences and open to residents, government and organizations. LIVE LAB helps to achieve a better living environment by coming up with innovative solutions to implement. It is a mobile and flexible lab with screens / digiboards, voting boxes for the participants, a stand-alone interactive vandal-proof outdoor screen that can be placed in the public space. It is supported by an online environment where background information, chat, exchange of media is possible to prepare the meetings. The project builds on experiments in the past such as "Decisions rooms" and the current "Future Centers" only this time with a low budget and in an "easy to use way." Atelier Tom Veeger Art Light Architecture will develop this in close cooperation with Mad emergent art center, it will be part of their project Mindhoven.

Keywords. Living lab; participatory design; co-creation; architecture; StrijpS; Eindhoven; live lab

Live Lab, the toolbox for 21st century cities

This article gives an impression of the start of one of the winning projects of an EU Tender iCity in Eindhoven, the Netherlands named Live Lab. This project is aiming at the integration of multiple information technologies with state-of-the-art social - and design knowledge into a product that holds practical tools and protocols. Imagine yourself organizing a public consultation on the design of the public area of StrijpS. You want real discussion, present information, you want the public to have an opinion, having already discussed the topics with other inhabitants, you want the people to actually participate in the proceedings. You want them to choose from several solutions and designs. In the period before the consultation; a Marker (interactive billboard) is placed near the Torenallee. It’s a beautiful and semi-transparent screen where information is showed 24/7 and where you are able to interact with, it responds. Not only will the information be available virtually and online, but it will also be shown in the public space itself.

Live Lab is the integration of multiple information technologies with state-of-the-art social - and design knowledge into a product that holds practical tools and protocols. Live Lab is a virtual and physical platform for sharing knowledge, ideas and experiences. It is open to residents, government and organizations. Live Lab helps to achieve a better living environment by coming up with innovative solutions for implementation. It is a mobile and flexible lab with screens / digiboards, voting boxes for the participants, a stand-alone interactive vandal-proof outdoor screen that can be placed in the public space. It is supported by an online environment where background information, chat and exchange of media is possible to prepare the meetings. The project builds on experiments in the past such as "Decision rooms"
“Design Spaces” and the current "Future Centers". However, Live Lab can be implemented on a low budget and prides itself in being very user friendly. Atelier Tom Veeger, Art Light Architecture, will develop this in close cooperation with MAD emergent art center. It will be part of their project Mindhoven.

For the Live Lab iCity product we will concentrate on a combination of three specific tools:

- The external interactive Marker
- a virtual interactive environment
- tools for the Design/Decision room

**Process**

In Live Lab we focus on developing "smart" tools to improve participation in the design and decision-making process of the living environment. To get a clear picture of the relationship of smart technology with design and decision-making processes, it is good to conduct research into the method and design of similar projects and "proven techniques". Participatory design in an urban environment is strongly in the interest of citizens. A ‘do-it-yourself-government’ is an important part of new policies and a hot topic in the media.

“If you want to create successful meeting places, you have to rely on the strength of the area where they are located. Consulting users is crucial. They are the local residents, businesses, visitors and owners who know what the opportunities of the area are. In the process of co-creation you can create unique meeting places which form the basis for a successful city. Determining what should be done in an area in a timely manner leads to uniformity”

http://www.culturelezondagen.nl/zondag/2014/de-stad-de-toekomst

**Participatory design**

Experimenting with Participatory design in Public Space is a new concept and so far it remains limited to a few successful examples. It is interesting to see that in other areas this process has made already further progress. The theory behind Co-creation, Service Design and Design thinking has been strongly developed in recent years and we can learn from the way it is applied.

"Participatory design is a way of designing with end users as full participants to be involved in the design process often from the very beginning and see the participant as equivalent, as a partner. In the industrial context, new products and services are increasingly designed with users. Companies such as Microsoft, Apple and Philips put the end user and his experience central to their innovation processes” Ingrid Mulder Delft University of Technology Department of Industrial Design.

Design and decision-making in the public domain are complex processes which are highly dependent on the goals, the underlying political agenda and social developments in society. In Participatory design, the design process can therefore not be seen separately from the decision process. Advances in technology may be able to play a fascinating role here. The rapid development of open data, social media, Serious Gaming and virtual / augmented reality are intriguing and challenging processes affecting the (political) decision-making.

“It is expected that cities will develop into smart cities full of intelligent sensor networks and interactive social media. The city by then will be given tools to feel what is happening with the city and their citizens. Simultaneously, through mobile internet and smartphones the "online" world melts with the physical environment of the city. All that makes it possible for citizens to increase participation in the public domain in an accessible and intuitive way. Would it be possible to support citizens in smart cities at
the local level with self-organization and facilitate decision-making? Without a good design a scenario of a participatory domain is not guaranteed: the ideas of governments and companies for smart cities are mostly closed systems in which citizens just lose control and their privacy; some architects and designers have a tendency or desire to design all experiences in advance and therefore it will limit the creativity of citizens. Will the smart city become an automatically orchestrated experience and an area like a monitoring station where the government can monitor citizens? Or will it become a participative city where citizens join co-creation of their environment? How can that be used for a new form of self-organization (chaos, spontaneous) and co-creation between government and citizens?”

Maurits Kreijveld  https://wisdomofthecrowd.nl/

This is an interesting debate in which Live Lab wants to play a role, focusing on a number of aspects in the process and providing smart tools to improve it. We are focusing on communication, brainstorming and decision making.

**Communication**

Good communication and information are of extreme importance at all levels. Research shows that the Internet is an important tool that can play a unique role through the speed at which information can be spread and the accessibility for large groups of stakeholders. It is an interactive medium in which the exchange of ideas, the possibility to upload material, start discussions and share knowledge effortlessly are unique (see examples in social media such as Linkedin and Facebook). We also look at the possibilities of interaction, with the features of the internet as a tool to achieve this goal.

“The Internet has created new ways for us to connect to each other and exchange ideas and information. This allows us to make much better use of all the talents, ideas, knowledge, creativity and manpower that are present in our society. Collectively we can be smarter. This is often referred to as the ‘wisdom of crowds’: under certain circumstances, a large group of individuals can take wise decisions and make good predictions”.  https://wisdomofthecrowd.nl/english/the-wisdom-of-crowds-visions-of-the-future/

**Information**

Transparency of information is an essential part of Participatory Design which ensures a strong commitment to the participants. There have been experiments with this in co-creation projects in public space.

“Communication plays a clear role in a participation process. When entering a participation process people should experience a feeling of welcoming. It is important that they are well informed and are provided with constant feedback. From the start people should know how a procedure works, what is expected from them, how much time it will cost them and what will happen with their contribution. During a participation process people should be invited to think freely, yet should know that there are some constant factors that they need to take into account. After a participation process it is evident that the result is communicated to all people involved.” (Nathalie Stembert ‘2011)

If we look at the design process the description of the Double Diamond design process is enlightening and gives a 4tal stages. In each stage Participatory Design can take place.
“The ‘Double Diamond’ process maps the divergent and convergent stages of a design process. Created by The British Design Council, it describes modes of thinking that designers use. The Council’s origin is Industrial Design – which is about creating tangible objects. As such, the model seems like a linear process. It describes significant up-front design, before going on to produce a final solution.”

https://www.thoughtworks.com/insights/blog/double-diamond

**Understand:** the process begins with a trigger. This could be an idea, a problem, a change in needs of a public domain. This phase is divergent and exploratory – it’s a search for new questions. Opportunities are identified for further consideration.

**Define:** from a place of some understanding, we begin to synthesize knowledge into insight. It’s about converging on a vision and defining the first expression of our plans to occupy a future position. A strategy should adapt when we make new discoveries. It doesn’t need to define all details of a solution. Instead, the focus should be on the desired outcomes or impact to achieve.

**Explore:** With a vision in place, it’s time to explore the best potential solutions. This is a divergent and iterative activity. Details and requirements have not been defined – instead, the right solution is discovered.

**Create:** Now we’re creating and optimizing working designs.

This 4 steps can be done in several different ways but online or software tools can be helpful to expand the amount of participants and to speed up the design process and the decision process. Also the process itself and the outcome can easily be shared virtually. This is very helpful if you aim to a transparent process of Participatory design.

Just as there are lots of ways to use real sticky notes, there are lots of ways to use online sticky note tools. Tools for Online Brainstorming and Decision Making in Meetings can be helpful to improve the outcome. But, how do you do the sticky-note thing online? You can find dozens of online sticky note and brainstorming applications, but not all of them work well as part of an online meeting. We decided to test out all the online sticky-note, brainstorming, and decision-making tools we could find to figure out just which ones work best for quick collaborative sessions during a meeting. Lucid Meetings Blog

**Research**

In the next few months we are going to experiment with the different software to understand the way how it improve the process and how easy it be implanted in a design process. This will take time and effort and experimentation.

To give an insight of the way we would like to handle the process with new tools we describe a test case at StrijpS: Pixelplein we want to start with. It will have a Lab functionality, it is a testing ground for new software tools and ways of communication. It also shows the 3 tools we would like to focus on:

- a virtual interactive environment
- tools for a Design/Decision room
- an external interactive Marker

**Pixelplein – the test case**

A green public space between the SWA building and Bosch Glass Building, in front of the Apparatenfabriek is the location where a co-creation design process is started in this virtual test case. We named the square “Pixelplein” referring to the Philips history making screens for television and computers, where pixels are the basic elements for electronic display.
The goal is to find an interpretation for this place where the "workers" in the buildings situated along as Bosch, Hotbed and the "residents" of Strijp-S both can agree. Place making as a challenge for residents and workers together. The Live Lab phases are a sequence of design performances using state-of-the-art knowledge, technology and experience. Applied to Place making of the new Pixelplein.

**Phases in the process**

*Placing a Marker and launching a website*

Placing a clear "sign" at the site with the aim of making the "public" curious, it is a focal point of attention, it heralds the "open" process of design. The display is interactive and invites to respond, provides information and is linked to a website, an interactive environment where "discussions" can take place and "posts" could be placed.

![LIVE LAB](image1)

*Figure 1*  
The website is informative, an interactive gathering place for comments, upload bookmarks good examples and ideas.

![Marker control](image2)

*Figure 2*  
The “Marker” itself can be controlled via touchscreen, Kinect or via smartphone with an app (to decide after research). The option is to fill in the Marker location as a small festival area with tables, benches, lighting e.e.a. dependent on this is necessary and how far we are in the process.

**Active approach of participants**

To approach the "workers" in the buildings of Bosch, Broeinenst and Glasgebouw, DDF and Yksi and Ontdekfabriek in an analog and digital way. To approach the "locals" in the adjacent area with the new residential blocks and the apartments in Anton / Gerard.
Participatory Design

Figure 3
From these groups we propose to discuss 4-tal design teams the challenge together, generating ideas and shaping them further in some designs. The process takes place in a number of separate sessions or in the form of a Hackathon. The workshop, brainstorming sessions are supported with software and hardware tailored to visual means. We use the tools of the Design / Decision cream, interactive screens that played well is put firmly the process Many workshops are intriguing pursuits but the process and the potential outcomes part disappear, they are not recorded in a proper manner. At the workshops, and / or hackathon can temporarily pavilion (or in this situation a greenhouse) is hired as an extension of the marker. = Transparent glass, place for design and discussion, visible to everyone and inviting, can also be used as an information center, with a casual walk. Aware is chosen for hiring these types of resources to respond flexibly.

Show, VR
Translation of the sketch designs into a VR environment, the option is to use it also in a 3D game, made visible to the general public on site using simple 3D VR glasses but also be seen on the website and on the marker. To Show the process of the establishment of the various designs what has been recorded during the workshops. This can be stimulating and informative.

The Solution
The design space will be turned into a decision room. Different designs are displayed virtually on the website and on location in the greenhouse, the vote will take place virtual and real, the pros and cons are discussed Subsequently it is tested, and a prototype of the design is performed.
Figure 4

The Marker is a central part of the product: it attracts and invites people to participate.

Figure 5

The combination of residents and workers invokes a high level of involvement.
Figure 6

The design phase uses various creative technologies, and is performed in a dedicated Design Space.

Figure 7

The virtualization of the concepts enables people to experience the found solutions.
OURB Project: A Research on Practices of Harvesting Collective Ingenuity

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Abstract. This research was put together by four Master’s students from KU Leuven Faculty of Architecture, who are self-motivated to investigate the possibilities of collective methods for designing within the Urban context. This paper is divided into two parts, the first being a scholarly investigation into learning from the collective mentality shift, and movements; discovering the added values of operating immersion/eversion from the virtual worlds to the physical one and analysing key factors for engaging the public on online communities. Following, the paper brings to light the challenges the future of urban planning faces during today's digital shift and the solutions possible through the introduction of digital platforms as support to urban planning structures. The second part is the complementation of the first, as the research team showcases the findings by testing out the learned concepts and conducting on-field social experiments. The paper concludes with an analysis of the results, and future directions to the research project.

Keywords: Collaboration; co-creation; collective ingenuity; digital platforms; social engagement.

Introduction

Over the past decades, the basic capacities of information and communication technologies (ICTs) have shown exponential increases in performance relative to costs (EEA, 2016). Even though ICTs can be powerful tools to build communities and enable cooperation, we will only reach meaningful results when technology begins to be accompanied by political and citizen’s will to reinvent the way we cooperate, live together and build our future. Whereas technology is essential, true collaboration is cultural and behavioural: it requires ‘to care’, caring for others, caring for shared purposes (Rossetti di Valdabero, 2016). The key to success lies in a hybrid collaboration of the physical and digital, where challenges can be collected in the physical and virtual, and bring inclusive wise solutions for all. The sharing of knowledge and ideas creates exchanges. The world is full of untapped intellectual resources that can now be mobilized. By coming together, it is possible to tackle the current challenges and find solutions more effectively (Lévy, 1994). Our cities are currently facing tremendous economic, social and environmental challenges; but we can provide solutions that exist by doing more with less.

The currents from collective ingenuity

The internet allows for different systems that gather, combine and distribute real-time data information, made available during every moment of our daily life to have a more efficient and connected city for smart developments. This powerful source of information gives way to the emerging socio-economic currents of crowdsourcing, like the makers movement, the circular economy, the inclusive economy, and the economy of sharing and “Smart city” approach which integrates many of these concepts. These currents explore smarter ways of living together with the support of digital tools and platforms that have recently been created.

Co-creating makes it possible to find solutions that nobody can achieve alone (Hesseldahl, 2017). The world is full of great ideas, valuable information and helpful hands that can be leveraged - as long as they are open to them. Embracing this attitude of inclusiveness allows for the outsiders to become a part of the solutions to their own problems, giving power to the powerless. Emergent paradigms as the one of
circular economy show how many people have special skills or knowledge that others can benefit from - if those who need them, know where to find them. In the past, it was difficult to connect people interested in sharing, today social media makes things easier. Thanks to new current platforms are created in which needs and resources correspond, and trust can be built (Hesseldahl, 2017). This is why online platforms emphasize the importance of user transparency, recommendations and evaluations by previous users.

Possibilities of using collective ingenuity’s power in the urban context

Recently, in the context of urban design, planning and development, there is a sense of a more equal contribution of ideas and solutions, with a co-creative attitude. Governments are recognizing the value of opening up to external contributions, even if this means losing some control over the results. In a future prospect, leaders will be forced to abandon top-down management because contributors to a project may be from other organizations - even clients or volunteers, and good governance will consist in motivating others by the insight of their constituents. Intellectual property will need to be rethought: to encourage co-creation within an open ecosystem, IP must stop being an intellectual protection to become an intellectual partnership. And finally, citizens will understand that co-creation is an opportunity but also a requirement.

There are plenty of good citizen engagement practices out there but they are underused within the planning system. Citizen engagement follows the traditional ask/respond consultation model and is largely dictated by legislative requirements, repeatedly reaching similar demographics. Often occurring too late in the process, citizens input often has little influence on decision making. Engagement usually takes the form of ‘objections’ and citizens lack a positive way to influence plan making and local development in a meaningful way.

Solutions from a digital platform which harvests collective ingenuity

In this paper we suggest that a possible way to harvest collective ingenuity might be by establishing a “one stop source”, a digital platform with the support of local initiatives. A co-creation format where we can merge diverse data sources; physical site and environmental assessments from experts, with citizens’ valuable local wisdom. The idea is to facilitate the communication of all city actors simultaneously in order to find connections and patterns in order to build a strong evolutionary analysis of the urban fabric. To be able to detect problems to turn into possibilities and open up opportunities for smart design proposals to arrive. Within this context and believes we are currently working on building our own digital platform called OURB and physical platform called OURB on Wheels and Heels. The aim of this project is to support the communication and collaboration between stakeholders of a city, by providing tools, that will bring them together to discuss information, share expertise, and create connections that will inspire a collective development of a city.

The platform will be based on a user intuitive map where the information can be visually organized via GIS location, storing multiple layers of information. As a digital crowdsourcing platform, it will constantly be evolving and therefore displaying the most current information about the city. Users will be able to share their needs, desires, proposals and oppositions, which will be tracked and displayed. Therefore creating the most updated overview analysis of the local knowledge for urban development. The platform aims to have the capability to collect data for analysis in order for city experts to contribute knowledge. It will also bring social input for investors and municipalities who look to have a greater understanding on citizen relation with proposed architectural and urban projects. The overall goal is for a more efficient and democratic way of communicating and discussing projects to take place. On which the public and
local experts have a louder voice in order to reduce the risk of investment and merge top down and bottom up strategies.

Local issues within the planning systems and societal challenge

The initial inspiration for this project is also stating the issue of why it is important to do this project. While attending a workshop in Belgrade about creating livable cities, the research team had the chance to learn about the city’s future development projects and personally observe what are the conflicts that arise from the way the decision process is held. Big protests against this projects with around 150,000 people participating were not enough to fight the absence of democracy and transparency. Talking with Arnstein’s (1969) words, the level of participation of citizens in this case was absent and reduced to a mere manipulation of the civic will.

During next four to five months the research group have been researching the application of a possible platform for social engagement taking it into the Belgian context, looking deep into the planning system in Belgium in order understand the transparency and democratic level in the country in which the research was held.

Brussels can be taken as a particular case in which the government is trying its best for increasing the participation with city projects through neighborhood contracts. This system organizes small scale projects which are developed with a “roundtable” style discussion on the possibilities and have those small scale projects developed. Neighborhood contracts are an example in Europe for the methodology that is behind them, but this system still seems to be not hundred percent efficient and there are still evident obstacles in engaging population in a consistent way. This issue reinforces the research group’s theory of whether an interactive online platform could be a support to the planning systems, and enable discussions online and help to share information and expertise at all times.

Methodology

In order to test the affordability of the theory and strategy of a project for a sustainable online platform, our research team decided to conduct empirical tests in which some potential feature to enhance engagement of the public users on digital platforms are tested through physical interfaces, that already represent what we called OURB on Wheels and OURB on heels. The aim of these experiments was to make the physical system to collaborate with the virtual one, to crowdsource the problems and dreams of a community and foster the emergent horizontal and inclusive design attitude.

The experiments on the physical field are part of a research on users’ engagement methods that works through to the comparison of two realities: the one of physical interfaces and the digital ones. Our literature review revealed that. Online platforms support bottom-up collaborative ontology building and allow user-based interpretation of heterogeneous information (Pak and Verbeke, 2010). Virtual environments can foster critical thinking and innovative thinking, re-discussing also the role of experts. Virtual realms have a potential to extensively redefine the existing realities and relationships, and to facilitate collaborative knowledge construction. However, assuming the positive potential that comes from the use and interaction with these systems, some negative aspects has to be considered: certain characteristics of human commitment in the physical environment are not replaceable with the opportunities offered by the confrontation with a virtual world. There is a fundamental asymmetry between physical and the virtual spaces: aware of the potential of both one and the other as well as their limits, the research team decided to merge the positive factors of the two contexts transferring them from one environment to the other and vice-versa, through the so called practices of immersion and eversion (Newton and Pak, 2015).

In this way, practices that are recognized to be sustainable in one setting are transposed and tested
into the other, and eventually brought back in a developed version. Thus, the field experiments represent the second step of the investigative process; after a research about the potential features that foster the participation of public users in online platforms, the team applied the relevant findings to test the physical field research. According to the methodology, the results of the second step of the research could then support a further study on the applicability of certain features to strength both online and on field engagement.

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**ICT a tool to engage and foster participation**

The idea of the internet of things (IoT) have allowed almost anything to be connected. This connectedness makes us aware of what is happening around the world, and is now shifting to a more proactive stage. Not only harvesting and sharing but also allowing for it to develop into a wider discussion and start tackling problems we are currently facing; from urban challenges to economical, political and cultural ones.

Users of online communities are becoming more and more proactive, they stop being spectators and start acting as participants. They are no longer part of a silent audience but instead are become active contributors. Meaning they contribute knowledge and information to online platforms, but also formulate an opinion. Opportunities for civic engagement can be expanded in urban design through collective intelligence.

ICT tools can be introduced in participatory urban design strategies as a tool to engage and foster participation. The strength of online communities lies in the engagement of its users defined by the users profiles/personas.

Through the analysis of different case studies on the behaviour of online platforms’ users, it’s possible to identify factors that define people’s engagement; Engagement of the users’ persona is based on three critical factors: trust, control, and motivation. The status of a user’s persona is one of the main factors that determine how users interact on online platforms, and how they cope with trust and control. Anonymity and identification are also different factors to take into account.

Anonymity allows users to feel a sense of security and privacy; it allows all members
to participate equally, since the physical interaction is missing, discrimination is harder to form and all users are able to voice their opinion equally. Anonymity grants people the ability of speaking their mind, leading to better discussions, better content. However, anonymity can translate into de-individualization, turning into poor, false or malicious content. With de-individualization there is also the danger of group behaviour, called ‘bystanders apathy’. When opting for anonymous profiles, the platform needs to set rules on how users should behave. The private nature of verification enables mutual trust between the users of a platform. The more users trust in their peers and in the platform, the higher their engagement level will be. However, identification could inhibit free expression. When the basic critical factor is established; trust and control, motivation is a way to increase the engagement of the users of a platform.

Another great tool that has shown to increase the level of motivation leading to engagement is *Gamification*, because of the following reasons: it motivates users, playing triggers positive emotions, and the achievement of something makes us feel better. By playing we learn to develop strategies, specific knowledge according to contents and by playfulness, moreover, anxiety is reduced, creativity boosted, social relationships established. Those activities that are properly gamificated, derive into a greater participation level. The most successful kinds of gamification are simple; they are about one kind of action leading towards one kind of outcome. *Validation, completion and prizes* are the most common gamification methods on online social media.

*Introducing ICT tools in Civic engagement*

ICTs can promote better informed decision-making by providing city stakeholders with appropriate, up to- date and actionable intelligence. ICTs offer new and improved ways of ensuring citizen participation in planning decisions, for example through the use of e-consultations, gamification and engaging virtual communities.

Civic engagement can be expanded in urban design through introducing ICT tools as tool to engage and foster participation. Community members play a more active role than just ‘likers’ on a regular online platform, the participants spontaneously assume responsibility for the community and uphold its spirit and culture. People tend to be more productive in a community, because they already have a place within this community. The users will act as co-innovators in this co-learning context and produce knowledge together with researcher.

This inter-sectoral thinking will lead to the development of innovative methods and novel design concepts which will be implemented, tested and evaluated with the continuous participation of these actors. In this way, research will go beyond disciplinary boundaries and integrate non-academic knowledge, enabling learning from real-world practices. The position of the researcher will be of an active nature, and the research will be structured through cycles of action research. In these cycles, the researcher will work in close contact with local and governmental organizations for facilitating the continuous negotiations of sense-making and scope refinement among the contributors. Participatory collection of information and analysis will be organized in the form of co-creative participatory sessions with the users on-site.

For now, using online tools in urban development, hasn’t reached the decision making stage yet. Decisions are always made within these organized physical workshops. This means that the platforms, as well as Facebook and blogs, don’t provide the right type of communication to make decision making happening.
Experiments: OURB on Wheels and Heels

The diversity of the exercises carried out in the physical environment challenged the way we communicate different kinds of information. Experimenting diverse communication approaches is relevant to stimulate people’s critical creativity and using alternative research tools can bring up unexpected output; developing different exercises had been a way to test the suitability of different tools that could be inserted in a virtual interface as well. For this research, two different experiments have been performed: the first one, called “OURB on wheels”, has been tested twice in two different environments and has been carried out with the help of a van, which acted as a physical supporting interface and an attractor enabler, representing an inclusive space to gather people. The second experiment, called “OURB on heels”, was based on a one to one investigation process, in which one surveyor tested the possibilities in engaging people with a direct and personal approach, recording information through the help of a digital application. Since the first experiment’s purpose is oriented to test the possibilities to engage people through physical devices, the second is testing the affordability and the advantage of using certain media recording application to facilitate the collection of information through different media with the support of technological devices.

OURB on Wheels

During the two sessions of OURB on wheels, the research team was able to involve people in the making of different kind of exercises; in consideration of the findings obtained from the previous research on the ways online platform enhance the participation of public users, the research team tried to transplant some of these findings to shape the method on which the physical engagement exercises were based on, testing certain influencing elements that foster participation, as the trust, the gamification, the anonymity.

The first on field session of OURB on wheels was organized in Brussels, carried out with a van working as a venue to host the practice of the little workshop. While analysing the results of the experiment it was important to take into account the context in which the work has been carried on: the place picked for the first OURB on wheels’ experiment is in a neighbourhood in which the diversity of identities and uses of it does not facilitate its definition; its structure, the profile of the inhabitants and the users is very much diverse and the area is known to be a pretty much complex one and rather problematic. Facing a non-easy audience anyways gave us the possibility to get better awareness about certain issues concerning the direct involvement of people and the strength of certain communication approaches.

The team invited people to go through three different exercises: (1) Hands-on mapping, (2) Collages, (3) Videotapes.

In the first exercise people were asked to approach a big map showing Brussels’s central area and some adjacent zones and to indicate their ordinary daily route with a string, indicating their home as a starting point. A distinction of two colours marked a gender identification. This representation method allowed us to both mark crucial points and paths, creating a sort of rhythm-analysis map of the users of the area.

This exercise’s aim was to understand what is people’s acquaintance with space representation on maps, and to test their capability to orient themselves in the map, reporting data on it.

Second aim of the exercise was to test the potential in the way of gathering information; it’s relevant to notice how just a first glimpse on the finalized map gives an impression of how the space is used by the group of people that participated to the exercise. Translating this info into numbers or categorized data, would allow to make an easy study on the average social rhythm of the area, with the possibility to repeat the exercise in order to refer to different periods or space contexts.
The second exercise involved people in making an actual object, producing a collage which could answer the question “what’s your ideal place?”. Each element given to compose the collage had its own meaning and belonged to a certain category. The participants were free to compose these different pre-settled elements and use them according to their own wills, with addition of personal drawings/writings. The importance of giving pre-set elements is given by two factors: first, for practical reason of feasibility and rapidity; second, having the collages as different outputs based on the same elements, allow to make an accurate analysis of the results.

All the collages are a mix between pre-given elements and additional personal sketches or writings, easy to compare thanks to their monochromatic features and graphic similarities; it’s relevant to consider as well the importance of the time that people gave to develop the exercise, as a proof of commitment and engagement.

As mentioned a positive factor of using given element to compose the object allow an easier and more accurate comparison between the outputs produced, but on the other hand it can lead to a lack of contextualization to the studied context and limit the way of expression (even though we notice that people were able to see different things in the same element). An interesting aspect that we noticed was the tendency of taking inspiration from other’s work, like a sort of unconscious influence that tends to happen between participants.

Collages and similar creative experiments were simple yet really evocative output, they can be a way to understand people’s values and thought process, surfacing unexpected themes and needs. With the belief that making things is a way to think things through, the exercise is unlocking creativity and making the participants going through a critical thinking process.

Creating amusement while practicing the exercise is recognized to be a way to facilitate the involvement of people, so the playful aspect of the exercise helped to attract more participants. The exercise was easily doable in order to gather the attention of a consistent number of people. This type of exercises were a success thanks to the gamification aspect that has been given to it. Playfulness and fun were two key elements for people engagement. All these practical considerations are important to define what’s relevant in the design of an interface, whether digital or physical.

The third exercise developed involved people being videotaped for 30 seconds, time frame they could use to express with their own words what they liked about the area and/or what they would like to change. This type of exercise is a way to collect more direct data from the source, recording them without interfering with the researcher personal filters. It allowed for information to be captured straight from the source. Moreover, giving a time restriction put pressure to the interviewed to give concrete answers and narrow down to the most important information they could provide. Exercises as such were very demanding and can less easily get response from the public. Many participants were not willing to commit enough time to sit and be recorded, even though mentioning the very short length of the exercise is still a way to stimulate the engagement. Through the exercise the issue of trust was explored. Few people allow to be recorded, since the idea of letting personal images to be recorded can be seen as interference with personal rights.

In consideration of these findings, the research team partially reviewed the way of developing the exercises for the second event of OURB on Wheels. Overall, the goal of this second experiment was to test out how our exercises could work in a different context in order to support the idea that the exercises could be reproduce at different locations and settings.
The experiment was set out in another hyper diverse area, this time in Antwerp, but since embedded in an event organized by the municipality a lot of the crowd that showed up had already interested in participating. This time we didn’t have to surprisingly invite people from the street but instead the participants that came were already interested in the event. The majority of these people are mostly highly motivated community members, that can be referred as the “believers”, people that will be the first to help and make something happen in the neighbourhood. We could say that gender equality was better represented however diversity was less evident. After a count, we could establish we had 21 participants in our experiments.

This time, participants were again asked to explain their daily path, and with this exercise we were able to again start a conversation and find out a generic how inhabitants transit through the neighbourhoods. This time people had an easier time figuring out their path, and so it was an easy exercise for them to partake. We would establish that everyone could find their way within half a minute. Overall we established as well that this already gave a good conversation starter that could lead to a second experiment. This exercises were accompanied with a newly introduced part which consisted of a chart giving to people the possibility to pick, through a small critical process, possible architectural development solution for the future of the neighbourhood. Four spots with high potential for development were selected and the participants were asked to make considerations on space, safety, health or liveability, to then select one of the site in which they would propose a project.

It can be argued that the exercises could have been visually organized in a simpler manner and could have given more options. Although most of the participants were understanding the point and the visuals. It was also very interesting to see how the inhabitants learned about their environment from the exercise.

It’s important to acknowledge the context in which the experiment was conducted, and how it affected the kind of people that took part and the amount of time they spent engaged. The fact the experiment was part of an organized public event meant that the citizens that chose to come were already motivated to participate and therefore the downside from this was that only people who wanted participate in community events were reached, which left a lot of people out of the conversation.

**OURB on Heels**

The goal of the experiment called OURB on heels was to explore the usage of an ICT platform on the field in order understand how online media collection improves the efficiency of a surveyor to collect data about an area, and support the idea that the combination of virtual mapping facilitates the analysis of the urban fabric.

The tool is a mobile data collection platform that allows you to easily build mobile forms & collect data anywhere, at any time. The most interesting aspect of this platform for Ourb on heels is the location-based data collection. This feature allowed the surveyor to automatically map out the collected information easily and efficiently in one place while exploring the area. Main features tested were: Digital location based mapping, Audio interviews, Photo capturing, Sound capturing, Video capturing.

Loose conversational interviews were conducted and in order to engage the different subjects into conversation, the surveyor had to identify himself and ask for permission to record the conversation, proceeding then to record on phone, asking questions and turning it into a casual conversation. When the conversation was done, some comments
have been written down and saved on the digital cloud together with the location where the interviews were held.

Audio recording interviews were very welcomed by the interviewees and easy to perform on field. The location-based mapping of the information was also very useful and easy to navigate and locate our interview. The recording allowed to gather first source info, as it is not filtered through the researcher understanding of the conversation. The researchers were able to prove that the location based data storing allowed easy organization of data and is useful to navigate through the study area.

Conclusion on the experiments

When comparing how we established participation in our ‘physical’ experiments, and how it is established on online platforms we can state that the critical factors remain the same. Trust is the first critical factor we need to establish. When asking people to answer anonymous to the questions no one hesitates, but when asking if we could film them, not many were eager to respond. With the people who were willing to be filmed, we had a preliminary interview to build up trust. Explaining them we are students translated in an active attitude, willing to participate in our experiments. Another determining factor was the number of people who were participating in our experiment. We showed the outcome of other participants by making their answers visible on the street. It drew passer-by’s’ attention and made them curious. Seeing how many people responded to our questions lowered the participate barrier. We can argue the same for online platforms, the quantity of members of a platform reassures other non-members that the platform is trustworthy. The Trust-profiles used on online platforms is a variant of the preliminary interviews we had to build up trust. However online this can happen more efficient, trust profiles are built by accumulating feedback from multiple interaction with different users. We gamified our experiment to motivate the citizens to participate. Important is that these tasks were simple, clear and generated fast answers. We noticed that participants seek validation the same way they do online, they compare their collages and answers to other participants, and saw this leading towards discussions, soon they started to address other issues, this shows that gamified experiments are a good trigger to discuss urban issues.

Conclusions

The research group concluded that this paper attests only for the beginning of a comprehensive research, one where we dive even deeper in studying how we can harvest collective ingenuity through different ways of participation methods, physical and digital, to then facilitate the process of designing, increase engagement of all stakeholders and thus building a more democratic way of developing a city. This part of the research is a good starting point to set the next tone on which we will tackle the next phase for the developing of OURB, as we hope to further its development to the implementation of a digital platform and the continuance of the on-field experiments.

Having tested the theory through the experiments, the team strongly believes in the power of a combination between working through ICT tools and developing a work on field, acknowledging that the potentials of one approach can compensate the limitations of the other. As showed in the previous considerations, this collaboration has been helpful to enrich the research method as well; the analysis of several online platforms taught us the value of elements such trust and gamification, criteria that have built the shape of the experiments conducted. It can be concluded that trust depended on the amount of commitment the user had to give to each of the exercise, the feasibility of
knowing what to expect, and the spatial context on which they stand. Then gamification was indeed one of our major key factors to achieve the participant’s engagement. Through gamification of the inquired information became easy to extract, but it also gave way an alternative tool of communication. Gamifying means to make it fun for the user to give the data we needed to understand their point of view of each requested area, and indicated certain concerns, they could not communicate immediately. The exercises gave time for more critical opinions to be made as they needed to take some time to think.

Learning from our experiments and the theories for different forms of collective living, we conclude that there is a new mentality change that needs to take place in order to give way to the upcoming currents of collective ingenuity. The new currents, show how it is possible to do less with more and highlights the positive attributes of living through a connected world. The ideas of a world relying on collective ingenuity opens the doors for co-creation, expands on the possibilities of a more resilient city. We can now positively understand that our attitude of moving towards a more inclusive and collective planning system goes along with those of many innovative minds, even though the planning systems currently set, are inadequate and are not processing with this new mentality. We also learned that this new mentality is already taking force on the online communities and exhibiting some good results on harvesting the collective intelligence through different methods.

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