A Participatory exploration of the Potential of Urban Waiting Spaces to Increase Urban Resilience

Abstract

This paper discusses research produced in the framework of the 'SWOT-Mobile' project, an ongoing Living Lab aiming at developing and testing a model for the co-creation of solidary living in mobile homes on Waiting Spaces in the Brussels-Capital Region (BCR). We specifically focus on the aspect of temporary use of Waiting Spaces within this project. Using our preliminary findings, we reflect on the potential of such un(der)used spaces awaiting redevelopment to increase urban resilience.

The paper starts with a background section, exploring of the phenomenon of temporary use (TU). In this sections, we situate TU in a historical perspective and distinguish between different reasons for TU. Next, in the methodology section, we elaborate on the Living Lab and action research methods used in the 'SWOT-Mobile' project. In the results and discussion section we present the SWOT-Mobile project, as case of 'TU as research', fitting in the current stage of the development of spatial planners and designers' interest in the temporary use of Waiting Spaces, in which Waiting Spaces are becoming become platforms for engagement and are taking up a transformative/transitionary role in the making of the city. Furthermore we are discussing the approaches and results of the action research cycles realised during the first of three years of development of the project. Finally analysing the preliminary findings of the SWOT-Mobile project, we conclude that Waiting Spaces are indeed becoming become platforms for engagement and that they can take up a transformative/transitionary role in the making of the city. But, the contribution of the SWOT-Mobile project is still very much under development. It remains to be seen if the encountered constraints will be overcome and if the model, being developed, will indeed provide an innovative answer to the lacking social housing provision in the BCR and the reduction of the abundant amount of un(der)used spaces in the long run.

Keywords

temporary use, Waiting Spaces, urban resilience, solidary mobile housing, Brussels-Capital Region

1. Introduction

In the BCR an abundant amount of un(der)used spaces are waiting to be developed [1, 2]. The majority of these sites such as West Station, Tour & Taxis and the Canal-zone are located in a privileged position, near large urban areas, and have a surface area between 5000 to 20.000 m². But also many smaller areas are vacant and function as waiting areas for future urban development. The territorial development agency has identified more than a dozen of sites as areas that would be very useful for temporary use until future projects are realised [1]. As vacant lots and leftover spaces often create a negative atmosphere and are associated with speculation and possible dangers, many cities are already employing the temporary use of Waiting Spaces for sustainable valorisation of the city.

Another serious social and economic problem the BCR is facing is related to poverty and housing. Because the housing market does not offer an answer to the needs of many inhabitants, the right to housing is not guaranteed in the BCR. The increasing number of households on the waiting list for social housing (43,096) illustrates a lack of social housing where less than half (44.9%) of the demand is met. Many inhabitants are thus dependent on the private market, where the rents are not adapted to tenants' possibilities [3]. Due to lack of alternatives, many people feel that they have little influence on their situation and they have to live in an unhealthy, too small or too expensive home. Also, in 2015, the number of homeless people in the BCR increased by 33% compared to the previous census in 2010 [4]. In the context of this affordable housing crisis [5] there is a clear need to develop alternative forms of housing that are better oriented to the vulnerable groups; especially the houseless.

This study is part of the 'SWOT-Mobile' project, an ongoing Living Lab aiming at developing and testing a model for the co-creation of solidary living in mobile homes on Waiting Spaces in the Brussels-Capital Region (BCR), with the aim to create an innovative solutions to the challenges described above. In this paper, we are specifically focussing on the aspect of temporary use of Waiting Spaces within this project. Using the projects' preliminary findings, we are reflecting on the potential of these places to increase urban resilience.

2. Background

2.1. Waiting Spaces as the object of research

There exists a wide variety in Waiting Spaces. They can be public or private sites, large or small scale and they can be built or unbuilt. However, a common feature is that they are spaces that have been abandoned by the previous use(r), and for which a future function still has to be determined or for which the realisation of the future function is delayed for various possible reasons (including e.g. planning processes, financial complications or unexpected technical issues). As such these spaces seem to be 'temporarily out of use'. They exist in some sort of interval, a 'waiting period' in their functionality, hence their name.

As, from the perspective of the current economic space cycle, Waiting Spaces are apparently 'useless', they tend to temporarily fall out of the attention of the mainstream urban actors, leaving them readily available for temporary use by others.

2.2. Temporary use in a historical perspective

Based on the exploration of a body of literature from the fields of urbanism, urban planning and urban management and in lesser extend planning theory [6] three stages can be distinguished in the development of spatial planners and designers' interest in the temporary use of Waiting Spaces.

In a 'preliminary stage' (1960-1990's), there was virtually no attention for what spontaneously occurred in un(der)used spaces awaiting redevelopment. Nevertheless this is an important phase as here the settings for later attention are emerging. This stage is characterised by a context of transformation from the industrial to the post-industrial city, of 'suburbanisation' and of the growing awareness of an ecological crisis. In this context the attention is turned towards the spaces that are results or leftovers form these transformations: (inner city) vacant lots and/or un(der)used spaces. In line with the rational approach in this post-industrial context, the focus was mainly on how to re-develop and re-integrate these spaces in the mainstream city in a traditional, planned and end-result oriented, way. In 1976, for example, the UK Department of the Environments issued a publication on how to 'reclaim derelict land and restore it to a beneficial use as soon as possible'.

This started to change in the light of the economic recessions. In the 'early stage' (1990's-2006) - while turning the attention towards finding cheaper or easier-to-realise solutions, both in terms of locations (available at low cost) and programs (spontaneous, self-organizing) - some authors are noticing how, even without official redevelopment efforts and despite failing or stalling official processes, interesting things are sometimes going on in un(der)used spaces. In this context the phenomenon of temporary use becomes the subject of several publications, in which its characteristics are examined, often through case studies. In their 2000 publication 'Spaces of Uncertainty', Miessen and Cupers for example describe 'the margins' of the city as 'possible public spaces'. According to them, these are essential to conserve the crucial characteristics of public space (openness and unpredictability) in confrontation to the 'functional units, the highly structured, programmed, and controlled spaces in the contemporary city'.

Finally, in the third 'maturing' stage (from 2007 onwards), the mechanisms and systems behind temporary projects are studied in-depth and the emphasis in the literature on temporary use evolves from an exploration of the characteristics and potentials of the phenomenon towards an attempt at consolidation, embedding and institutionalization. In this stage we see the publication of works that are specifically dealing with temporary use in the framework of urbanism. In their 2003 book 'Urban Catalyst, The power of Temporary Use', Oswalt, Overmeyer and Misselwitz are for example providing recommendations for architects and city planners on how to incorporate this phenomenon into urban planning.

At the same time, in this stage we are also seeing works that are broadening the scope, beyond the sole focus on temporary use, by considering the whole sphere of activist urban interventions by civil society actors operating outside of the standard planning processes. As these are moving towards a more general and comprehensive description of a renewed approach to urbanism, we can claim that, at this point, we are beginning to determine a paradigm shift [7]. All around the world, citizens are starting to claim a shaping power over the ways in which our cities are made and remade [8]. Because of this spatial planners, designers and managers are more and more motivated to find new ways of engaging with a multiplicity of actors and stakeholders wanting to be involved. Against the backdrop of the worldwide 'commons movement', un(der)used spaces seem to become ideal platforms for alternative actors to take the centre stage and for new (power) relations and new ways of engagement to develop [8, 9, 10, 11].

2.3. Reasons for temporary uses

Here we want to clarify that our focus is not on activities in which temporality is a pre-requisite (like e.g. markets and fairs). Rather we are focusing on activities that are temporary for other reasons. We distinguish roughly four other motivations for temporary use (TU): TU out of necessity, TU because of an opportunity, TU as activism and TU as (action) research. However, these different forms frequently occur in combination with each other.

In the case of '**TU out of necessity**' we are dealing with users who are unable to carry out their activities in the usual urban spaces. They are resorting to the cities leftover spaces, basically because they have no other choice. Think for example of a young artist who is renting an inexpensive workspace in a vacant building because he or she has insufficient means to rent a nice, fully equipped studio. Cost saving is indeed often a priority in this type of TU. An example from the BCR are the temporary settlements in the Maximiliaanpark. In 2015, due to a lack of shelters, hundreds of refugees had to camp in the park while awaiting the processing of their asylum application by the Immigration Office, located nearby. And today again the park is being used as a temporary camp, this time by 'transmigrants', trying to get to the United Kingdom from Brussels.

'**TU out of opportunity'** involves users who are seeing an opportunity in un(der)used spaces and are trying to realise a surplus for themselves through their temporary use. Think for example of children building a camp on a vacant lot. In this type of TU the agenda of the user is the priority and the site is more or less seen as a blank canvas. An example, from the BCR is the 'Property Guardians' service, offered by Camelot Europe, a commercial organisation that offers vacant real estate guardianship through temporary occupation. The temporary residents benefit of the relatively low rent and the sometimes exceptional locations they can reside in. The property owners benefit of the fact that their property is not left unattended. But, as they are charging both to residents and the property owners, probably the one profiting the most is the organisation itself. As part of this type of TU, we can also consider all sorts of city marketing projects, aiming to put an specific place or area on the city's 'mental map' by organising hip activities in anticipation of planned urban redevelopments. A Brussels example of this is the 'Cityscape' project by Arne Quinze. This project involved a work of art, consisting of wooden sticks forming some sort of canopy, creating a temporary public square on a vacant lot on the Avenue de la Toison d'Or. As it was much visited and photographed the project added attractiveness to the commercial neighbourhood. Moreover, as it was financed by BMW Mini (BeLux), this company was allowed to regularly use part of the site for the organisation of trendy promotional events.

In the case of '**TU as activism**' we are dealing with users who are reacting directly to a (spatial or ideological) challenge of a space and/or its surroundings. Projects in this case are often starting from the ideological motivation to realise a 'better' city. They are rejecting the bureaucratic manner in which cities are being managed nowadays and through their actions are trying to overcome spatial and/or social inequalities. We can see the temporary occupation of the former office building at the Koningsstraat 123, in Brussels, by the NPO Woningen 123 Logement, as an example of this. Starting from the idea of 'social integration through housing' this NPO strives to help people having difficulties to find a place to live (for financial and other reasons). Therefore they are occupying vacant buildings in Brussels and making them available as very accessible, alternative social housing.

Finally, the users practicing '**TU as research**' are considering Waiting Spaces both as an issue and a possible solution. Their primary goal is knowledge production; often these users are considering traditional (top-down) approaches to be ineffective and they are aiming at developing innovative solutions. At the same time these users want to test out possible alternative approaches in real life and engage the bottom-up energy of the city in their search. An example of this is the SWOT-Mobile project discussed in this paper.

3. Methodology

3.1 The SWOT-Mobile Living Lab

In literature, it is possible to find various approaches to Living Labs [12, 13]. Different researchers describe it from different perspectives as a network, a platform, a context, a method, an interface or a system. Inspired by Higgins and Klein in this study, we frame the key characteristics of Living Labs as:

1. A laboratory focusing on the empowerment and inclusion of the users in the research and creation processes
2. A real-world setting aiming at real-world impact, involving multiple stakeholders from multiple organizations and enabling their interaction
3. The researchers observe and take part in the creation of an outcome

4. Multi-disciplinary research teams are actively involved in the research settings, confronted with the technical, social and political dynamics of innovation

The stakeholders included in the SWOT-Mobile Living lab are:

- eight future inhabitants (houseless people who have lost their grip on their housing track),
- other houseless people facing the same problems that will be involved in different phases of the project,
- the surrounding inhabitants and neighbourhood organisations,
- the local and sub-local authorities (the local Council, social services, the Housing and Urban Planning departments of the BCR, social housing associations, ...),
- employees of the NPO Samenlevingsopbouw Brussel (SLO), an association focussing on community building,
- employees from the NPO Centrum voor Algemeen Welzijnswerk (CAW), an association providing personal support on general wellbeing,
- lecturers and students from the Faculty of Architecture at KU Leuven, campus Sint-Lucas Brussel,
- and employees from the NPO Atelier Groot Eiland, an association focussing on training and social employment.

Together these partners are co-creating eight affordable mobile housing units and a collective space enabling interactions with the neighbourhood. The Lab is resulting in the co-creation of a learning space with all the partners - including the houseless, a group that is usually not involved in this and that generally doesn't have much to say on their housing track. By taking part in every step of the conceptualisation and the construction of their own houses, the future inhabitants will not only build individual housing units, but gradually also create a solidary living community, in interactions with the surrounding neighbourhood. Through this, besides regaining a grip on their own housing track, they will regain a grip on their whole life. As such, in this project, experimental forms of empowerment and inclusion are being explored with a focus on solidarity and interaction. In its intentions the SWOT-Mobile project is thus an illustration of how, in the contemporary context, Waiting Spaces can act as platforms for engagement and how they can take up a transformative/transitionary role in the making of the city. In what follows we are analysing to what extent this is already becoming apparent on the field, in the project, after the first of three years of development.

3.2. The Action Research

The Living Lab methodology employed in the SWOT-Mobile project involved three big action research [14] cycles (Fig. 1):

- C1. Co-Planning and Site Selection Cycle (Spring 2017) (Completed)
- C2. Co-Design of Temporary Use and Prototyping Cycle (Summer 2017-Fall 2018) (Ongoing)
- C3. Development, Evaluation and Dissemination Cycle (Fall 2018-Spring 2019) (Future)

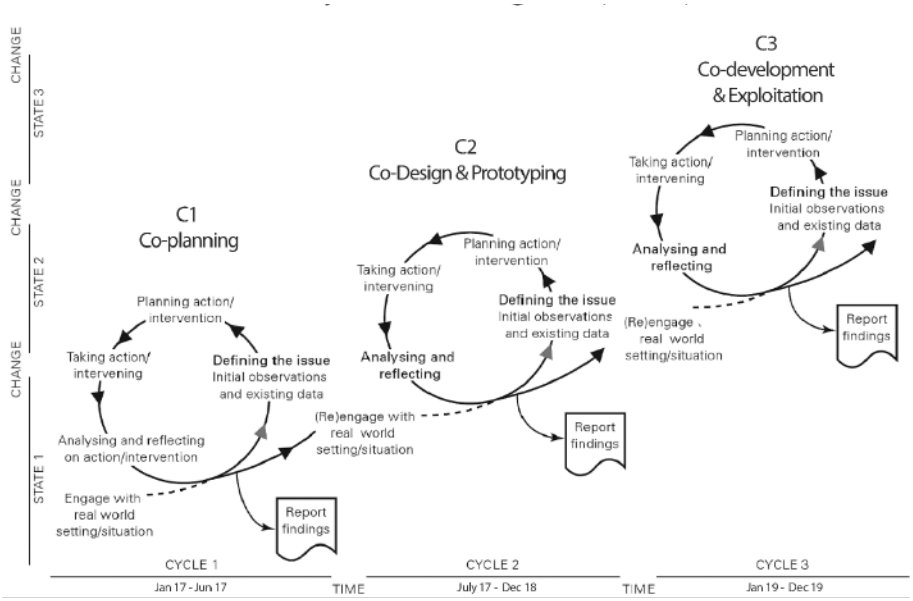

Figure 1. Schematic Representation of the Three Big Action Research Cycles of the SWOT-Mobile Project (Image: Action research cycles [14] adapted by Burak Pak)

Each of these big cycles have particular goals, to be realised through a number of smaller steps. Each of these steps are in fact in their turn smaller action research cycles, consisting of the same defining, planning, executing and analysing stages as the bigger cycles. In this way, the bigger cycles are in fact fractal.

For the completed Co-Planning cycle (C1), which involved the participatory planning of the project with the contribution of CAW and SLO, the smaller cycles included:

a. the project planning (definition of criteria,…)
b. the selection of the future inhabitants
c. the selection of the temporary use site
d. and the first part of the legal research

For the ongoing Co-Design and Prototyping big cycle (C2) the smaller cycles included:

a. the guidance of the future inhabitants
b. the preliminary design
c. the second part of the legal research (ongoing)
d. the detailing of the design (ongoing)
e. the financial research (ongoing)
f. and the building of the prototype (in preparation)

This action research method is providing us with an open framework that enables the use of different tools adapted to the particular goals of each cycle (focus group meetings, semi-structured discussions, surveys, participatory mapping). In the following section we are discussing the detailed approaches and results of the already realised cycles.

4. Results & Discussion

First of all, looking at the SWOT-Mobile case it can be recognized that this project fits the description of 'TU as (action) research'. As described in the introduction, the issues the project is dealing with are the fact that the social housing provision in the BCR is lagging behind (both on the level of quantity and quality) and the abundant amount of un(der)used spaces awaiting redevelopment. In line with our description of TU as action research, the project partners are searching for innovative solutions and are engaging the bottom-up energy of the city in this search. As in this project, experimental forms of empowerment and inclusion are being explored with a focus on solidarity and interaction. The SWOT-Mobile fits in the in the third 'maturing' stage of the development of spatial planners and designers' interest in the temporary use of Waiting Spaces. The aim of the model use TU to give houseless people, now facing social deprivation, the opportunity to participate in the co-creation of their own homes, as well as to contribute to the shaping of their environment.

In this section we are discussing the approaches and results of two of the smaller action research cycles realised during the first of three years of development of the project: C1.c. Selection of the Temporary Use Site and C2. b. Preliminary Design of the Housing Units and Collective Space(s), as these are the most directly related to the focus of this paper.

For the **Selection of the Temporary Use Site (C1.c)**, a GIS database has been set up with more than 150 locations provided by Perspective Brussels (governmental agency for territorial planning). Specific socio-spatial indicators were calculated for each site and maps were created using these. The main indicators were: flood risk, pollution level, income level, density, accessibility, access to green areas, unemployment, ethnic diversity and facilities. Our literature study showed an abundance of approaches for determining the suitability of the sites for affordable housing. Some studies suggested placing affordable housing in high-income areas to increase the socio-spatial urban mix and to guarantee job opportunities and safety. Other studies then suggested areas with a lower income level and well-connected central neighbourhoods could facilitate better integration. Furthermore, various studies reported that green infrastructure and parks have a positive impact on health and to recover. In addition, in the specific context of the Brussels-Capital Region, the preselection of Perspective Brussels showed that the areas of the former industry have enormous potential for temporary use in anticipation of their redevelopment. In this context it is impossible to say that an optimal generalized prescriptive top-down solution is possible, but rather a local, *satisficing* solution to be consulted with the houseless. In order to continue our research in a systematic way, we have organized workshops with representatives of the future inhabitants to set up alternative scenarios based on user preferences literature study, and the site selection research. These resulted in four alternatives:

Scenario 01 Temporary Use in Low Income Central Area: This scenario provides housing in low-income, central urban areas where residents are well connected with all social services and neighbours would have a similar status. In this way the inhabitants may find it easier to integrate. New developments can also help to create new quality spaces in impoverished neighbourhoods with social control by the new residents.

Scenario 02 Temporary Use in a Low Density Area with Access to Green Infrastructure: This scenario provides housing in residential areas with low density and many green spaces. Due to the low density, the risk of resentment with the neighbours is reduced, there is more freedom for the newcomers and it offers the possibility of more personal contact with a stronger community.

Scenario 03 Temporary Use in an Industrial Site under Redevelopment: This scenario provides housing on sites that are in redevelopment and are either industrial sites or are situated next to those. This allows to be a pilot project for future redevelopments in the neighbourhood. Such locations would have much less resentment with the existing neighbours and give more flexibility and freedom. The scenario starts with limiting the selection of all sites that Perspective Brussels indicated to those in the area indicated as Space for Reinforced Development of Housing and Renovation.

Scenario 04 Temporary Use in a High Income Central District: This scenario provides housing in neighbourhoods with a higher income and mixed use. Areas with higher incomes are also much safer and have stricter social control, this might help prevent the homeless people to relapse into self-destructive habits. These areas also have higher quality public spaces and are near better paid jobs.

Visualizations and surveys for these scenarios were prepared and distributed among reception centres for homeless people to get to know preferences and get other feedback. Based on the scenarios specific formulas were created for the selection of the locations, which allow to filter these sites in a qualitative and systematic way. This **top-down** search was combined and followed by **bottom-up** actions which involved a) the addition of sites known locally but not covered by the choices given by the agency and b) contacting the owners of the selected sites and consulting relevant authorities to learn about their attitudes on a possible temporary use. In complex contexts such as the Brussels Capital Region with 19 small-scale municipalities and linguistic tensions, a combination of both approaches proved to deliver the most reliable results.

In the framework of the **Preliminary Design of the Housing Units and Collective Space(s) (C2.b)** an architectural design studio has been completely reconfigured at the KU Leuven, Faculty of Architecture. The 'maib14 Solidary Mobile Housing (SMH) Design Studio' took place weekly from 27.10.2017 until 10.02.2018. The group consisted of 17 students of the first year International Master of Architecture, the eight future inhabitants, the KU Leuven tutors and researchers (Yves Schoonjans, Burak Pak, Ken De Cooman and Aurelie De Smet) and representatives of SLO and CAW.

The topic of the SMH Design Studio was the design of temporary housing units and collective space(s) according to the criteria, which were collectively defined by the project partners in the former cycle. The studio coordinators, Burak Pak and Ken De Cooman, interacted with the students on a weekly basis. Aurelie De Smet took part in this form the standpoint of a participating observer, focusing on the co-organization and documentation the overall process. Every week, one or more representatives of the other project partners (SOB & CAW) were also ‘butterflying’ in the studio to consult with the students and give them feedback. On a very regular basis external experts were invited in the studio to give presentations on specific aspects related to the project (first half of the semester) and/or to give consultation on specific questions (second half of the semester). The CAW guided future inhabitants were invited to participate in the studio whenever they liked. Every 4-5 weeks representatives of all the project partners gathered with the future inhabitants and external experts to reflect on the proposals.

As a location for the studio we aimed at finding a less institutional, more low-threshold location where students can learn about temporary use by experiences. We wanted to create a workplace, where we could collaborate freely with the students and future inhabitants. From this perspective we joined the temporary use of the 24th floor of the WTC 1 tower organized by the KU Leuven Faculty of Architecture. Mainly three tools were employed during the design studio to accommodate the involvement of the future inhabitants and SLO and CAW representatives: Participatory Site Visits (C2.b1), Participatory Hands-on Workshop (C2.b2.) and Participatory Reviews and Evaluations (C2.b3). We are discussing them here.

Participatory Site Visits (C2.b1): The aims of the site visits were to explore the temporary use sites selected for the design studio with the students and the future inhabitants, and to organize a first encounter between the sites, the future inhabitants and the project team, including the students, helping them to getting to know each other. During the second studio-session, the six sites selected for the design studio in the participatory project planning and site selection cycles (C1.a & C1.b) were visited together with the project team, the future inhabitants and the students. We only visited the ‘priority sites’ to not to overload the program and picnicked

on one of the terrains to enabled eating together as a convivial activity. We asked from the groups of students prepare a leaflet following a simplified communication strategy covering the first analysis of the sites to provide to the future inhabitants a tangible memory of the trip.

All the participants visited all the sites, they discussed them with each other, the tutors and with the future inhabitants. The future inhabitants expressed their first impressions about the sites both during the visits and in a debriefing with SLO and CAW representatives afterwards. As a result, one of the initial sites was rejected by the future inhabitants. For the purpose of the studio it was replaced by one of the 'backup-sites'. There were several challenges to this task. Afterwards the future inhabitants reflected on the visited sites in a debriefing with SLO and CAW and their reflections were successfully passed along to the students.

Participatory Hands-on Workshop (C2.b2): The workshop was organised during one week. For the students the aims were: to work intensively on the design studio project and become aware of the 'buildability' of their designs and the need for 'conscious use of materials' by focusing in depth on materials & building details (while until then they were mainly working on urban and spatial configuration concepts). For the future inhabitants the aims were: to think and talk about the notions public and private (on the level of the units (internally) and the neighbourhood (externally)) and to communicate ideas and needs to the students. The students were given the assignment to realise a building detail on scale 1/1, 1/2 or 1/5 and the researchers organised a number of lectures, workshops and visits for them addressing the topics of materiality and buildability. The future inhabitants got involved in group conversations with SLO and CAW use of cardboard and tape to test out different spatial configurations for the interior of the housing units on a 1/1 scale. Furthermore a number of joint activities has been organized with students and future inhabitants. Among these are the visit to other temporary use examples such as Home for Less and a visit to Labland, to see the mobile house they are building.

By getting engaged in hands-on 'making' activities, the students and the inhabitants started to consider the 'buildability' of the ideas they have co-created. The future inhabitants had a lot of group conversations leading to more clarity on their wishes concerning the notions private and collective. These were presented to and discussed with the students. The future inhabitants participated in design conversations, searched for creative solutions, drew their own plan setting out 18m2 with tape and cardboard

Participatory Review and Evaluations (C2.b3): In order to empower the participation of future inhabitants and the representatives of SLO and CAW, every 4-5 weeks we organised participatory review and evaluation moments to reflect on the proposals (Fig. 2 & 3). During these review and evaluation moments the students thus received feedback, both from 'experts' and from the future inhabitants themselves.

Figure 2 & 3: Review moments with the future inhabitants and representatives of CAW and SLO in the SWOT-Mobile Design Studio at the KU Leuven Faculty of Architecture (team: Burak Pak, Ken De Cooman, Aurelie De Smet, Geraldine Bruyneel, Tineke Van Heesvelde, Dieter Vanden Broeck, and Yves Schoonjans) (Photographs: Burak Pak (left) & Aurelie De Smet (right))

For these sessions, we experimented with three different configurations. Unfortunately we don't have the space to expand on these here, but from these experimentations we concluded that: (1) a lack in experience in dealing with the many the constraints a realistic temporary use project is entailing can limit the design output, (2) time-limitations, the quality of the provided materials and a lack of experience in reviewing architectural/urban projects sometimes inhibited a thorough understanding of and in-depth knowledge

exchange on the design proposals, (3) organizing separate sessions with the future inhabitants provided the chance to really engage in conversations with the students, (4) providing accompaniment by 'professionals' from each field (to literally and figuratively translate the conversations) facilitated the knowledge exchange with the future inhabitants and (5) preparing good quality, comparable material facilitated the understanding of the different architectural proposals. In order to evaluate the student works we have developed and used a set of criteria, driven from the necessity of temporary use and interactive workshops with the future inhabitants. These included mobility, demountability, reversibility, eco-consciousness, affordability, adaptability, flexibility, informality, incrementalism, openness and economical innovation.

6. Conclusions

Analysing the preliminary findings of the SWOT-Mobile project described in the previous section, the following observations are made.

- From the traditional point of view, Waiting Spaces are defined the residual spatial products of contemporary urban planning and useless leftovers [15]. Furthermore, for the ordinary users they can be intimidating pieces of land, a stage for illegal activities. In contrast to this the SWOT-Mobile project is challenging the problem of legitimacy of temporary use in education and practice. The organized design studio helped us to break the prejudice towards temporary use of Waiting Spaces by illustrating the affordances of the Waiting Spaces through design.
- Organizing a participatory design studio on temporary use in a temporary use site (24th floor of the WTC 1 tower) provided a less institutional, more low-threshold location where students could learn about temporary use by experiences and collaborate freely with each other, the tutors, the involved civil society organisations and the future inhabitants.
- Design thinking about temporary use triggered designing with time in mind and helped students to establish a novel link between space and time which overcame the past conception of programmatic *statis*, by reframing the urban-architectural project as a 'process of change' [16]: in which a) understanding space and everyday activities through time, b) creating space-time scenarios for an urban project and c) and solid strategies and architectural solutions for time-based use are central.
- The Selection of the Temporary Use Site showed that combining top-down and bottom-up is crucial for designing temporary use. A key success criteria for temporary use is the level of involvement of the users, locals and authorities in the making of the project. Neither the random occupation of a site with citizens is sustainable practice, nor the imposition of temporary use by the authorities without consultation.
- Temporary use brings in a plethora of constraints: from a pedagogical viewpoint as well considering design creativity, the constraints of temporary use can overwhelm the designers and limit the diversity of the design output.
- Temporary use invokes a particular type of design criteria. A dynamic understanding of space and use makes us consider mobility, demountability, reversibility, eco-consciousness, affordability, adaptability, flexibility, informality as inherent characteristics of the architecture of temporality.
- The liminality and envisioned performative nature of architecture in Waiting Spaces, extensive appropriation of light and reversible materials combined with a respectful attitude towards the natural elements on the site brings in a new aesthetics.
- Designing, teaching, learning, facilitating and participating in temporary use shifts the traditional roles. This requires transdisciplinarity and social practices with a stress on particular engagement strategies such as networking.

From these observations we can conclude that throughout the SWOT-Mobile project Waiting Spaces are indeed becoming become platforms for engagement and that they can take up a transformative/transitionary role in the making of the city. As such Waiting Spaces prove to be ideal stages for of Latour's hybrid forums [17]. They can be seen as real-life laboratories, where alternative actors can take the centre stage and new (power) relations and new ways of engagement can arise. In this way innovative, alternative approaches can be created and tested out though the temporary use of Waiting Spaces. This are indeed the ideal context for a more resilient urban future develop. But, as the SWOT-Mobile project is still very much under development, it remains to be seen if the encountered constraints will be overcome and if the model, being developed, will indeed provide an innovative answer to the lack of social housing provision in the BCR and the reduction of the abundant amount of un(der)used spaces in the long run.

Funding

This paper is a product of the SWOT-Mobile project, funded through the INNOVIRIS CO-CREATE program. Some of the knowledge used in the background section was produced in the framework of the project 'The Role of Temporary Use of Waiting Spaces', funded through the INNOVIRIS PRFB program (2009-2014).

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Images/Illustrations

Figure 1. Schematic Representation of the Three Big Action Research Cycles of the SWOT-Mobile Project (Image: Action research cycles [14] adapted by Burak Pak)
Figure 2 & 3: Review moments with the future inhabitants and representatives of CAW and SLO in the SWOT-Mobile Design Studio at the KU Leuven Faculty of Architecture (team: Burak Pak, Ken De Cooman, Aurelie De Smet, Geraldine Bruyneel, Tineke Van Heesvelde, Dieter Vanden Broeck, and Yves Schoonjans) (Photographs: Burak Pak (left) & Aurelie De Smet (right))