New tools for Designing Places in Cultural Urban Studies Perspective

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Abstract

StructView FRAME project, run in Pomeranian Science and Technology Park in Gdynia (Poland), constitutes an attempt to implement public participation tools for spatial planning by means of using immersive, three-dimensional visualisations in Web environment. The project utilises technological and social innovations to hack the system, which usurps the right to the common city space, by creating an engaging communication platform for city space users and emphasising the representation of marginalised groups. Within the digitalized society where all eyes are fixed on city interfaces (de Waal, M., 2014) and where the local is shattered by the Web, the responsibility for the surrounding space seems to be disappearing. Yet, social media and mobile applications are more and more often used to gather around common spatial needs (pop up city) and issues (NIMBY). Since the 1960s, long before their explosion triggered by the Web, methods of communal space shaping have crystallised and spread. In Poland, adapting the tools for participation that have been developed in big Western European and American cities, proves to be a great challenge. After 1989, we have been mesmerized by private property, and as a result of this phenomenon, Polish cities of today are still being shaped by neoliberal powers. Voice of the public is not taken into consideration in this discussion – in fact it has not been until recently that urban movements have started to organise themselves and their voice is still too weak to be heard (this could be seen in their results in previous election). The presented tool uses developers' needs for marketing in order to promote new ideas and widening the area of public space. This is possible because highlighting the importance of local community (and the knowledge gathered from urban dwellers) as the key figure in the process of urban space shaping is only possible as an element of market mechanism, it is not perceived as saying no to cultural

hegemony (Gramsci) and a way towards regaining the right to the city (Lefebvre). There is no

getting through to the main discourse without adjusting to the rules of the game.

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Introduction

Nowadays, the role of the designer is changing. Apart from the fact that today the formation of places is increasingly dependent on many other subjects besides the designer, the design process itself runs much differently thanks to fast-growing technology. This technology is generated and absorbed by corporations, and the high degree of units' specialization is not conducive to the rapid assimilation through interdisciplinary projects. Why is the notion of being interdisciplinary important here? Because it implies social responsibility – the need for an integrated approach to design, beyond the field of modern, functional design. As a result, there is a need for critique of contemporary design practices from many perspectives – ideological, moral and agenda-setting. The critique of the use of modern design tools entering into reality thanks to the development of technology, is limited to theorizing, and rarely touches upon the tools themselves. Separation of technical faculties from the humanities is especially visible in countries where the neo-liberal thinking reigns – where social welfare is associated with the idea of economic growth, and an exception can be made at least for the sake of ecology. Accounting for achieving the public welfare through creating spaces orientated towards human needs, is done numerically by showing their impact on stimulating the economy or savings[1]. The actual process of design as well as implementation of projects in the field of spatial planning has been significantly accelerated – particularly by the use of BIM. This leaves no room for defining objectives each time and multiplies the duplication of schemes in isolation from the local social context. New technologies seen from a different perspective of social groups marginalized in

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1   *Economic benefits of public space investment.* Future of Places. http://futureofplaces.com/wp-
    content/uploads/2015/04/FoP_Economic-benefits-of-public-space-investment.pdf [01.05.2015].

terms of their spatial needs, nowadays become a tool for hacking this system and supporting participation. I show their potential in StructView FRAME project, implemented in cooperation with StructView in the Pomeranian Science and Technology Park in Gdynia.

Post-socialist society and the common good

Thinking about designing people-oriented places (in community-driven and inclusive way) developed after the modernist disappointments – among others – thanks to Jane Jacobs (1961, 1969) in the 60s of the twentieth century. Since then, pre-project research methodology has grown significantly and tried to transform local social context into the main guidelines. The disappointments felt by architects and urban planners as well as urban communities themselves and activists were accompanied by the "spatial turn" in geography and history, which spilled over to other areas, including cultural studies. However, their development in post-socialist countries, such as Poland, was stopped - even after the collapse of the Soviet Union. In Poland, fascinated by the freedom after 1989, we entered a phase of wild capitalism. We rejected all that gave rise to associations with the previous era – putting private property on a pedestal. The notion of what is "common" conjures negative associations even today. Therefore it is extremely difficult to implement solutions that will serve the common interest and not as the mere financial profit for the investor.

The very concept of common space, public space in relation to the "right to the city", is in reality very blurry. If we respect private property, then we cannot consider what surrounds us as "ours" because it formally does not belongs to us. An example is provided by the landscape law that Polish parliament adopted only this year. Many influential people still believe that

advertisements in public spaces are a sign of our freedom, not a breach of the common interest, which the aesthetics of public space is. The concept of placemaking can therefore in these circumstances be interpreted differently. In its foundation lies the question of who should create it as well as – for whom and why?

Neoliberal and high-tech city – actors and their goals

When we look at how the economic system determines the power relations between actors in the design process, we can easily recall the concept of hegemony. In this process, there are three main groups of interests – designer / architect, the investor and the local community – current and future users (for the sake of simplicity we omit other groups of representatives – NGOs, politicians and the media). Each group wants to achieve its own goals in the process: the architect seeks appreciation, the developer wants to make money and people wish to better their living conditions. Each group possesses different tools to guard their interest. In the neoliberal system of power, the control over all kind of the tools lies in the hands of investors but the local community has the right to speak up in so called public consultation. If nobody takes their say into consideration, they can seek legal action or try protesting. In order to avoid bad decisions, the investor can commission studies in the initial stage of the project. But typically these are the so called feasibility studies where it is tested whether the investment will bring in a profit and whether the local community is willing to engage in legal actions (then you can talk to them) or if they will be only left with the protest option (then it is enough to keep them informed).

Consulting the investment project with local community, even if it directly concerns a particular space which is and will be used exclusively by this community, in a market economy

takes on a variety of forms. To provide an example, in the UK we have Planning for Real, in which all interested parties gather and map their interest point on a model – a method of planning only last year used in Poland in the Lower Silesia district. In Poland however, most often it is the Office for Spatial Planning that provides information by basically clarifying the obscure wording of the plan to the public, the plan itself is made available in a form of a multi-layered, black and white PDF, buried somewhere deep within the Web.

The degree of community involvement in decision-making is therefore differently distributed on the ladder of participation, which was described Sherry R. Arnstein (1969). Communities are trying to climb the ladder of participation but local governments and real estate developers are simultaneously keeping those meetings low-profile. Why? Because in real life participation is a nightmare. To quote Marcus Miessen „All inclusive democracy has to be avoided at all cost"(Miessen, 2010). If we let people who are not experts decide, we are not far from a spatial catastrophe. That is why giving people even such a small amount of responsibility like in the case of participation budgets, means „something" for the city. If they offer more, they are already seen as radicals – as described by Justin McGuirk (2014).

In described conditions, the technology provides a manifestation of power. Firstly, it speeds up the design process by allowing to produce development easier and faster. Note that here durability is less important than continuous growth. Secondly, it is showing yourself in the literal sense – it serves investments such as Masdar city or big projects by starchitects. The fact that they are the result of extracting resources from elsewhere escapes our attention – dimmed by the glimmering of novelty (Greenfield, A. 2013).

Under the assumptions of the New Urbanism and the idea of Sustainable Development, all groups of actors should work together in order to achieve high-quality urban space. However, it is difficult to engage local communities which have been long deprived of power and even the ability to express themselves. Therefore, an encouragement to engage the next generation is an opportunity for the future. The big question remains – will the generation Y and Z, immersed in entertainment, want to get involved?

Marginalized groups tools and new technologies – crowdsourced power

Attention to spatial needs increases when something is taken from us. The so-called NIMBY (Not In My Backyard) and various other urban movements, are more active centered around a common cause, based on the opposition. In fact, the moment of protest is very often the time when the investor receives information about local needs – often those which he was not able to predict in the design stage. We can, however, try to obtain certain data from the local community that will enable us to plan an investment that is going to bring benefits to everybody – by commissioning studies to experts: culture specialists, anthropologists, sociologists and psychologists. Thanks to field qualitative studies, we can measure generally everything: local needs – cultural heritage, collective memory, cycling and pedestrian routes, security, and real accessibility. However, there is a major issue here. In market reality nobody will invest time or money on this, because the goal is to make money and move over. This is why it is crucial to seek tools which will enable us to quickly and cheaply gather information on the needs and issues of local communities. The examples of using the Web by local communities in order to re-gain their „right to the city,“ prove that the Web can be an excellent tool for pre-project studies.

Local communities are increasingly involved in manifesting their needs and spatial

problems using the Web. They use not only petitions and other forms of protest, but also

increasingly manifestations of general needs, rather than specific interests. Different types of

groups such as YIMBY (Yes in My Backyard) or Pop-up City, create and share research material

on an unprecedented scale. Let us list here at least two examples: Park(ing) Day[2] – an annual

event when people all over the world transform metered parking spots in their cities into

temporary public spaces, and Guerilla Gardening[3] – grass root spontaneous city gardening. Even

photographic documentation of these actions published on blogs and social networking sites

gives the designer an "open-data" access to many clues typical for a specific location.

Such actions can evolve into urban planning tools as in the case of "sneckdown"[4], a Web-

based mapping of unused parts of the road by using snowfall patterns, interesting especially

when combined with the mapping system. Public Participation GIS (PPGIS) offers us a

completely new tool for obtaining information about places from their local residents – quickly

and, importantly, for free (Czepkiewicz, M. , Snapp, K., 2014). A key element of success in

raising the amount of data is accessibility – the ability to enter the map directly via a browser or

mobile device, without the need to install the program on your computer, and the ability to insert

different types of editable maps to your own website.

Immersion of places

The availability of solutions such Public Participation GIS, however, has its limitations.

Respondents whose voice we want to hear, rarely view their city from a fly-over perspective. The

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2   Park(ing) Day: parkingday.org [01.05.2015].
3   Guerilla Gardening: guerillagardening.org [01.05.2015].
4   http://www.streetfilms.org/street-lessons-from-a-blizzard/ [01.05.2015].

ability to read maps is not widespread, and therefore maps are increasingly looking to enhance

views with a street-view option. This is used by a portal for architects called Architizer, created

by Mark Kushner in 2009, through which users can explore the conceptual design visualizations

and comment on them. However, this solution serves the purpose of communication, not

participation in the design of locations. Project "Happy routes" to Yahoo Labs (led by Daniele

Quercia – Aiello L. M., Quercia D., Schifanella R., 2014) was an example of a study using GIS

for participation. It used photographs of the streets of London and Boston to map a distinctive

cycling routes based on subjective criteria, such as beauty. Respondents chose from two photos

the one that was closer to their criteria of beauty. Based on the results, a search application was

created that enabled its users to search for cycle routes in several variants - the shortest

(shortest), the most quiet (quiet), the most joyful (happy) and the most beautiful one (beauty).

Visualization and photography are not sufficiently realistic to convey the complete

experience of space. What is worse, in the hands of designers and investors, they are often

subject to manipulation. In order to verify that, it is enough to type in a search phrase:

"visualisations vs. reality". In whose hands lies the tools determines what good comes out of its

use. However, there are situations in which the interests of developers, investors and future users

converge, and this happens during market research. In many research centers, for several years

we have witnessed setting up laboratories for testing architecture which use immersive tools –

examples of which are VisLab (Technion in Haifa, Israel) and Immersive Visualization Lab

(University of Missouri, USA)[5]. Three-dimensional visualizations are used there for virtual

walks through the planned buildings. The results of their research in are not in any way aimed at

activation and participation, and yet their potential for such use is immense. With just such tools,

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5   Immersive Visualisation Lab: arch.missouri.edu/ilab/about.html [01.05.2015].

we are able engage in research a generation raised on video games in which walking (or driving as in Gran Turismo by Sony Entertainment) around a virtual city is quite natural and intuitive. Precisely because of this the market connected to visualizing is growing – from computer programs, 3D scanning and aerial photographs, to the VR goggles and tactile holograms. One example of the use of realistic, three-dimensional visualization for participatory action planning project is the Urban Explorer Table to Swedish Interactive (Norrkoping, Sweden), through which residents of the city can evaluate spatial changes occurring in the tissue of the city. Clearly, however, the slow pace of implementation of such solutions for pre-design studies and mapping of bottom-up city initiatives is caused by the implementation costs and the solutions' limited availability (tables or touchscreens available in just a few points in the city). Their use is not based on an open-data model, so with them the local community is not able to systematically conduct a research on its members' needs and problems.

StructView FRAME – interactive city model for web-based studies

FRAME (Field Research for Architecture and Urban Planning) project carried out by myself in the Pomeranian Science and Technology Park in Gdynia, in cooperation with StructView[6] start-up, is based on the assumption that immersive solutions for pre-project research and testing of architectural and urban transformation should be available in the web environment. This availability will permit to make the best use of local communities' involvement for research purposes.

The project was initiated in 2014 on the basis of an innovative technology created by StructView, which makes three-dimensional, interactive visualizations available directly in your

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6   StructView: structview.com.

web browser. This technology was addressed to developers who would use it in their marketing

campaigns. In 2014, the demo version was produced and presented at the Laboratory of Social

Innovation at PSTP Gdynia. Residents of the city could take a virtual walk around a fictional

investment located in their neighborhood, share their opinion on it in a virtual poll and indicate

their needs related to some of its functions. At present, a prototype solution called StructView

FRAME for City is being shaped, which will include the new Śródmieście area of Gdynia, which

is still in the design phase. With the use of a virtual model, the city residents will be able to

signal their expectations and concerns. Then, based on this data, young designers will present to

the city council proposals of urban transformation developed throughout the workshops. The

event is held under the auspices of the city of Gdynia and the Society of Polish Town Planners.

Method

StructView FRAME is based on collecting data from the questionnaires filled in by users.

Users map their needs and issues directly on a virtual model in two ways. They either drag and

pin the labels in a specific location, or mark particular areas in the form of a drawing (for

touchscreens – with finger). The model produces results that can be used as guidelines by spatial

designers at any stage of the investment – the programming phase, concept development and

project implementation. Spatial issues and needs of the inhabitants are divided into categories

(for example: communication, accessibility, safety, aesthetics, ecology, public space, functions),

represented by simple icons. Respondents could also add their own markings. During the survey,

the available labels are limited to ten, but it is not necessary to use all of them. Survey also

contains a simple impressum which allows to classify data according to gender, age, district of

residence and specific attributes. All data generated from quantitative research can become a

stimulus for qualitative research focused on a specific problem. As a result, a model can be

supplemented with additional features that allow to obtain more detailed information. This model

can also be used as a support for Charrette workshop.

StructView FRAME model of Gdynia City Centre, Poland (2015)

Profits

Web-based visualization of the city fabric as a research tool brings benefits to each group

of the actors. The architect/designer gains multiple insights deriving from the social context

which he himself would not able to test. He is also able to test his concept in the process of its

formation. The developer can analyze his investment in the realistic context of the city, identify

the challenges that it poses and communicate with various interest groups through a well-

structured platform. However, it is the local community that gains the most, as it receives the

right to express themselves and to shape their own reality. It gains a communication tool, gaining

a sense of belonging – which is crucial in shaping friendly places in cities that are ever growing

at a breakneck speed. Profit, which is to be demonstrated through StructView FRAME project, is

based not only on generating soft factors supporting comfort of living. Developers, through the

virtual model where they can place their property, are gaining a great marketing tool thanks to

which their client is able to make a quicker purchase decision. Furthermore, this purchase will be

more conscious, which directly translates into promoting good practices.

StructView FRAME at Gdynia InfoBox, Poland, photo by Agata Bonisławska (2015)

Synthesis and Conclusion

Products that directly affect human life (drugs, cars and even toys), before being released onto the market, are firstly a result of the analysis of the needs of customers in a particular area. Secondly, they are tested by research teams on groups of future users. In designing an urban space this requirement does not exist, and pre-project examination is limited to market research. The products, which are in fact places to live, are released from the vacuum of renders and only then are actually confronted with the real spatial context and the man. It is clear that more and more populated cities may not serve as a ground for so ethically questionable experiments. It is extremely important to use this chance – in the form of new technology - to create engaging communication platforms between actors involved in the process of designing places, and to promote participation in the planning – as the new placemaking tool.

A profound qualitative and quantitative research in the social, local context allows to discover the full potential of places regarding to the specific location. It offers many long-term benefits for the city on many levels. First of all, it shapes friendly places in the intensively developing and growing urban space, which translates into quality of life in the city. Moreover, it represents the local communities through voluntary public consultation, educates and builds a spatial identity of the urban population. It also supports grassroots democracy, and the process of building civil society. And - what is very difficult and important in neoliberal conditions - promotes good practice and positive attitudes among professional groups of designers and developers. It is important that the tools to conduct those studies are engaging and also widely available. Today, many bottom-up city initiatives with a big potential for benefit (for everyone)

do not receive enough support from space creators. They are a part of horizontal participation but with the use of new technologies those initiatives can emerge with the power of crowdsourcing.

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