PARTICIPATORY METHODS IN URBAN DESIGN

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Abstract: The article aims at exploring the methodological framework of participatory approach and its significance to urban design. It starts with a brief overview of traditional design methods and its limitations in designing for a large number of unknown users, as well as implications of participation in general and a recognized need for change of the approach and its democratization. This particular need has originated from the risk assessment of the traditional methodology and the unrealistic expectations of taking into account a limitless number of urban environment variables imposed on architectural designers. The article then shifts its focus to methods that involve many stakeholders in a complex endeavor of designing urban spaces. In cases of applying participatory methods in the research phase and design of public spaces, it is possible to actively engage representatives of various interest groups and lower the risk of making decisions leading to underused spaces. It is further outlined that this process gathers mainly non-designers: current and potential users of space, institutions, investors, as well as project team members from non-designer disciplines: marketing, engineering, sales etc. Benefits of the methodology are not only perceivable in the resource management field, but in a more righteous dispersion of responsibility and incorporating knowledge and experience of the community into the design process. Lowering the risk of delivering not-satisfactory urban spaces with the subjectively driven author approach is based on two premises: a) that users are entitled to be engaged in what directly concerns them and b) that taking the input from current users into account makes successful outcomes more feasible.

Participatory methods are then analyzed from both the perspective of theory and practice – giving the realistic experiences, restrictions and difficulties in their implementation, through several projects and more or less successful designs generated through participation of various actors. One of them – recon-

struction of the “Mihajlo Petrović Alas” primary schoolyard – is given as the case study of method knowledge application in contemporary Serbian context.
Experiences are then employed in acquiring further understanding of the organizational and procedural possibilities of the application of this demanding, complex and diverse process conditioned by the concrete spatial requirements. The necessity of coherent implementation of the defined principles, adapting the process to the needs of the social and urban environment and applying appropriate customized tools is recognized as the very basis of the method. While theoretical keystones are mainly static, the tools, tasks and practical steps are dynamic and in constant change and adaptation to spatial and programmatic frame. Consequently, we learn about the benefits and possible misleading throughout the process and raise questions for further analysis.
Keywords: participatory design, urban design, design methodology, case study

INTRODUCTION

Urban space, broadly defined as public space of the cities, accessible to and shared by all citizens, represents a spatial arena of often contradictory influences and power relations. Expectations and interests are multiple, and architects, planners and designers are left with their own consciousness and professional ethic to deal with multilayered environment.

We aim at responding adequately to ever-evolving urban conditions. We try to collect all the relevant information, identify needs and understand how and why people use spaces, recognize problems, raise questions and offer answers through design. Real life evaluation comes at the very end of the long process – when all the research and design is done and money invested. Bearing in mind the broad spectrum and long-term influence of urban design projects, this approach has proved to be risky.

In most countries, though, public participation is required by planning legislation and there is a step of pre-building public evaluation of the urban space projects. This phase allows public insight into the drawings and images of the projected space, and is most often done as a formal step at the final stages of decision making – in the best case – as a debate about projects prepared by professionals that results with no change of the design. The main reason for this lies in the remoteness of the process from the citizens and future users of the space – the call for public insight is usually announced in the media not used by broad public, the project is on display in the planning institution, not at the place of interest, and finally, the available means of influencing the plan by the public are few and most often discouragingly difficult to process.

THE NEED FOR A CHANGE OF METHOD

The above mentioned – traditional approach to the urban design and planning – brought about many successful projects, places that became part of city identity and were accepted by the community. But, there are also many examples of wasted resources – space, time and money – in the projects that result in empty, unused spaces that prove unsustainable in time. Our collective journey to find a way to live harmoniously with each other and within our social, economic, and ecological environments is a quest for sustainability[1]. The success of this quest is always measured by the way it affects citizens, who have the final say. The negative judgment is often passively expressed by not using the space. This brings us to a conclusion that, not surprisingly, urban design is in the first place about people – in the broadest sense of the word – how they feel, move, interact, orientate, where they meet and spend time.

No matter how responsible, thorough and informed designers are, can we really expect them to grasp all the variables of the urban environment, all aspirations of different interest groups and stakeholders? The answer is simple – we cannot, and should not, because there is a way to lower the risks built in the traditional methodology – by introducing community participation into the process of research and design. The community is a powerful agent, and urban space demands a democratic approach[2]. The indeterminacy of urban spaces, the complexity of the human environment and the powerful notion of the public necessitate engagement in community-based urban design projects[3]. This approach promotes involvement of all stakeholders in the design process – from direct users to decision makers and investors – aiming at recognizing and communicating their needs and bringing about sustainable decisions. This approach is called *participatory design*.

DEMOCRATIC WAY OF DESIGN AND ITS BASIC PRINCIPLES

The Participatory Design approach emerged in the 80s in Scandinavia during the labor unions' pursue of democratic control in their work environment[4]. It is a design process that engages different non-designers: existing and potential users, various stakeholders and design team members who come from disciplines such as marketing, engineering, sales, etc. It is practiced through a variety of collaborative activities throughout the entire design process[5]. Carroll and Rosson[6] state that: "Participatory design integrates two radical propositions about design. The moral proposition is that users have a right to be directly included in the process of design. The pragmatic proposition is that directly including the users' input will increase the chances of a successful design outcome".

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1 H. Sanoff, *Community Participation Methods in Design and Planning*. New York, 2000.

2 R. Sennett, *The Fall of Public Man*. New York, 1977

3 R. Kallus, *Citizenship in action: participatory urban visualization in contested urban space*, Haifa, Israel, 2016

4 M. Stangel and A. Szóstek, *Empowering citizens through participatory design: A case study of Mstów*, Gliwice, Poland, 2015.

5 E. Sanders, E. Brandt and T. Binder, "A framework for organizing the tools and techniques of participatory design". *Proceedings of the 11th biennial participatory design conference*, Sydney, Australia, 2010

6 Carroll, J.M. and Rosson M.B. P*articipatory design in community informatics*. Pennsylvania, USA, 2007

Participatory design process is based on the core idea of democracy: that we should ask those directly affected by design for their opinion.

> "Participatory design strength lies in being a movement that cuts across traditional professional boundaries and cultures. Its roots lie in the ideals of a participatory democracy where collective decision-making is highly decentralized throughout all sectors of society, so that all individuals learn participatory skills and can effectively participate in various ways in the making of all decisions that affect them"[7].

Participation, as the collaborative decision making process, treats community as a powerful actor, promises urban space a democratic approach and, according to Sanoff[8], is led by the following principles:

- Parts of the community directly affected by the design have a right to be involved and participate as extensively as they wish
- Participants should have an opportunity to build up a capacity to contribute
- They should be provided with relevant information, so as to take part in a meaningful way
- Their contribution should be taken into account and affect decisions
- Needs and interests of all the participants should be recognized and clearly communicated
- Participation should include various activities in which stakeholders are involved in different degrees, and not limited to voting
- Respectively to the decision making process, the responsibility is also to be widely spread

These principles can be combined into the following definition, which emphasizes the importance of building participatory capacities on the local level, for enabling full functioning of wider democracy:

> "In a participatory democracy, collective decision making is highly decentralized throughout all sectors of society, so that all individuals learn participatory skills and can effectively participate in various ways in the making of all decisions that affect them. Particularly crucial in this conception of participatory democracy is the insistence that full democratization of decision-making within all local and private organizations is a necessary prerequisite for political democracy at the national level"[9].

BENEFITS OF PARTICIPATORY APPROACH

What does this collaborative methodology bring us compared to the traditional approach?

Both theorists and practitioners[10] underline the issues of risk, responsibility, self-reliance and strengthening of the community:

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7 H. Sanoff, *Democratic or Participatory Design*. North Carolina, USA, 2004

8 *Ibid.*

9 *Ibid.*

10 R. Kallus, *Citizenship in action: participatory urban visualization in contested urban space*, Haifa, Israel, 2016; H. Sanoff, *Democratic or Participatory Design*. North Carolina, USA, 2004; M. Stangel and A. Szóstek, *Empowering citizens through participatory design: A case study of Mstów*, Gliwice, Poland, 2015.

- Smaller risk of failure – we have a higher chance of achieving a successful design outcome if our design brief is based on real findings about people's needs and problems
- Responsibility for possible outcomes of the participatory design process is widespread amongst all stakeholders who contributed with a critical or creative input, as well as architects, designers and investors who translated the input data into action
- Participatory design method is based on community's resources – people's, companies' and organizations' skills, knowledge and experience.

The method's starting point and basic assumption is that the process has a long-term positive impact on the community's self-reliance, bonds strength and internal involvement. By working together on a shared vision, different stakeholders have more chances of understanding competing positions over an issue, and forming realistic expectations towards their own interests. Involvement also lowers resistance to change among certain interest groups, which is a common feature of urban planning and design practice.

HOW DOES IT WORK?

The research showed that the most valuable resources of the participatory design practice come from the NGO sector. While theory of participation and collaboration in design is widely available, the urban design focused case studies are significantly fewer. As we can already presume from the previously elaborated facts about the method in question and bearing in mind the complexity of the urban environment – it is a rather demanding, possibly slow and complicated as well as a very diverse process.

Inevitably, we face the question of organization and control over the process. This is the point where experienced organizations, such as Singapore based *Participate in Design*, provide valuable feedback from participatory design practice – they, themselves, mostly act as **facilitators** – a team that holds the strings of the process and makes it comprehensible, applicable and productive. It is the role of facilitator(s) to design the participation process, get in touch with all the relevant sides and stakeholders, select the tools, organize events, realize the activities, gather feedback and evaluation data, provide channels of communication etc. (Figure 1)

Their "11 principles of designing with people" are useful for understanding the application of the methodology in practice (a sum-up):

- Get to know the people – involve in the community, seek influential actors and go where people already are, instead of expecting them to come to your organized event or workshop
- Communicate simply (preferably visually and tangibly) about complex subjects – allow people to understand and be neutral
- Try to test and prototype, involve people in a hands-on manner
- Trust people in that they know what they want and why and make sure you provide training to develop people's skills and knowledge on issues around them, and create opportunities for them to step up

Participatory design process appears to be a fluid concept – each spatial situation and problem in particular demands a project-specific design of the participatory process, preceding the action. As illustrated in the diagram (Figure 1) – good participatory design depends on three key areas – adhering to previously listed core principles, designing a suitable process and applying the right tools and methods.

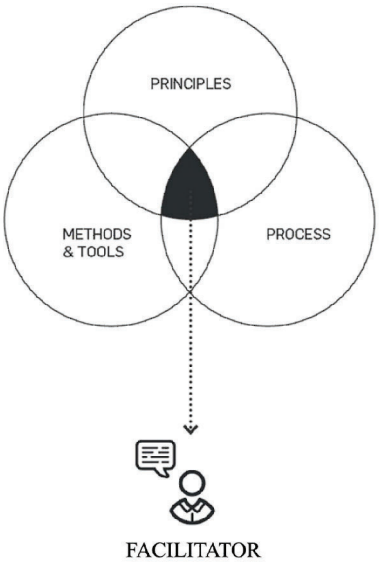

Fig. 1

While principles are more or less of a static category, process, tools and methods appear to be dynamic and in constant change and adaptation depending on the actual spatial and programmatic framework.

Tools and methods should be decided and selected upon a specific project, from a number of possible choices: street poll, community living room, design workshop, design clinic, open office, mapping workshop, party, walking conversation, ideas market, interactive exhibition, crowdsourcing, scenario game, role play, DIY toolkit, 1:1 prototype.

According to Sanders *et al.*[11], the most popular techniques include scenario techniques stemming from theatre, design games used as a platform for the design dialogue and prototyping that supports participants in a joint creation of concepts and mockups.

CASE STUDIES

Examples of projects that included different models of participation are structured dually, according to the role and the phase of community engagement. We will learn both about:

1. projects that based their design process on participatory methods and
2. initiatives that were born and grew up from citizen engagement

The first pair of case studies includes projects of public spaces, different in scale and functions, which engage various methods of including community into the design process:

a. Fruit and Energy Farms, the Thunmanskolan's schoolyard in Knivsta (Sweden)
b. Public space reconceptualization, Mstow, Poland

The second group of examples gives us insight into currently operating, ongoing projects that grew out of citizen initiatives, spontaneous or organized. These three enterprises also vary in size, scale and ambition, but all started as a bottom-up and

11 E. Sanders, E. Brandt and T. Binder, "A framework for organizing the tools and techniques of participatory design". *Proceedings of the 11th biennial participatory design conference*, Sydney, Australia, 2010

Fig. 2

non-profit self-organized groups. Participation is their spark, and is more or less integral to their development:

a. Park(ing) Day
b. Be a building hero
c. High line, New York

1a. Fruit and Energy Farms, the Thunmanskolan's schoolyard in Knivsta (Sweden)

This schoolyard project aims at displaying the process of harvesting electrical energy from the renewable sources – sun and the wind – in 1:1 scale. The authors – Ana Džokić, Marc Neelen and Marjetica Potrč, in collaboration with Ingalill Nahringbauer – say they wanted to underline the new energy paradigms of the 21st century – a new balance between the urban and the rural and to the self-empowerment and self-sufficiency of communities. They installed solar panels and a wind turbine and integrated them into the complex structure of the yard.

The project is relevant for this article on several levels: it enhances local values by embodying public space and community spirit into the schoolyard; its concept and design contribute to the municipality with a bold statement about caring for energy resources and bringing nature to the city; and finally, it was the school staff and pupils that defined the design brief and evaluated the final project through participation in the process. (Figure 2)

The authors' team applied basic participation tools such as interviews, role-play and workshops. Through the first round of interviews with the members of the broader community, they came to a revelation, which was what they call "an eye-opener" for the design – that unlike the communities they come from, people from Knivsta municipality saw the schoolyard as a public place that can occasionally be used as their meeting point. The programmatic concept was a result of working with children, citizens and school staff on developing the design brief – the authors organized a workshop before the design process began and prior to having a "chance of forming any presumptions about the design", as they say. "Looking back at this workshop we feel that the exchange of experiences and motivation with the stu-

dents has influenced the project more than we expected at that moment". They say the workshop propounded a question: "What kind of school could Thunmanskolan in Knivsta be — beyond being a high school?" The workshop discussions and propositions mainly dealt with the issues of publicity and sustainability.

Hence, making the schoolyard public in terms of its function and accessibility became a starting point for the design and its key feature. By introducing the subject of harvesting solar and wind power energy, this space claimed its public character in more than one way – it became a contributor to the wellbeing of the community.

Another curious aspect of participation was demonstrated with this project – the students were granted an important role in the decision making process – "the final design proposal was reviewed by a 'jury' of students who, in fact, had the last word. The students, who remain without voice in many design commissions, were in the foreground here. It made us even more determined to create an environment that would suit them — and thereby probably be more of a challenge to the school and community instead".

1b. Case study of Mstów, Poland

Mstów is a village in Southern Poland, Region of Silesia, recognized by the experts of the "Design in the Field" program of the Regional Government as a platform for forming a local development strategy through participatory approach to design. Mstów has been transiting from agriculture to the touristic and residential village in recent years, with authorities realizing several investments in public space. These investments varied from success with a recreation area project to a disaster of a market place square reconstruction, and the local government decided to apply for the "Design in the Field" project hoping for better understanding of the local needs, defining relevant goals and suggestions regarding sustainable village development.

As the authors and facilitators of the design process, Michał Stangel and Agnieszka Szóstek[12] put it:

> "This case study presents an approach, which aimed at redefining key spaces in a rural area in Southern Poland through participatory design techniques involving local citizens. The project addressed aspects such as: participatory urban design, User-Centered Design and interdisciplinary cooperation between design and architecture students".

They proposed a "Research through design methodology"[13] – a version of the participatory approach where research does not precede the design, but becomes its integral part. The model proposed by Frayling, the authors say, is

> "a means to formulate and test the solutions to stimulate the local community of Mstów. In such a process, a designer starts with exploring complex issues in a realistic context and reflects them back on the prototype, which is then exposed to the users. Observations of how the prototype was experienced guide an iterative design process."

12 M. Stangel and A. Szóstek, *Empowering citizens through participatory design: A case study of Mstów*, Gliwice, Poland, 2015.

13 C. Frayling, *Research in Art and Design*. London, UK, 1993

It underlines the role of a prototype as an instrument of building design knowledge where the prototype serves as a means to define, develop and evaluate that knowledge[14].

Within a chosen methodology, authors designed a process to serve this particular purpose and selected the following techniques, as stated in their case study: observations, interviews and questionnaires, vision development through creative sessions, iterative design process, and concept evaluation.

The design team was assembled as a versatile and interdisciplinary group, composed of facilitators, two design experts – User Experience designer and an architect, representatives of local authorities as providers of the knowledge of the region, and students of design and architecture.

The first phase of the process was about learning the specificities of the village and getting to know it better through site visits, observations, meetings and interviews with citizens and local stakeholders. After carrying out 30 interviews with residents of various age and occupations, students were able to identify the major problems and opportunities of the village, as seen by its citizens: potential of a well-developed tourist area, lack of a bridge on the river which separates two sides of the village, lack of sufficient roads and paths, lack of tourist information and appropriate marks leading to the leisure area, lack of attractions in the market square, small accommodation base, devastation of the old barns. And so the talks became a foundation of the subsequent stages of design.

The second step was defining the needs of the local community through a workshop using an affinity diagraming technique, resulting with a detailed list of issues to be dealt with. We could sum them all up with the authors' conclusion that "the citizens wanted to live in a place which they could be proud of and where they could find jobs for themselves and their families". The Facilitators grouped these issues into three major aspects of Mstów public space and village offer to be creatively developed: a tourist route around all local attractions, a redesign of a market square and the local cultural center and eco hotels built using the remains of the ancient barns.

The specific value of this approach, similarly to the previous case study, lies in the fact that the process did not only serve to define **how** to design certain urban spaces, but primarily to understand and decide **what** to build.

All three selected aspects of the village development were approached to as separate design briefs by independent teams. Consequently, we learn from the case study that

> "the proposed projects formed a coherent vision rooted in the needs and expectations of residents. The concepts showed a range of possible ways to uncover and develop local potential and opportunities in order to form a new quality of unique places for residents and tourists."

The three teams worked following the defined process including evaluation, prototyping, getting feedback and refining design solutions.

All concepts were visualized and displayed on the Market square as an open air exhibition, grouped in long and short term investment categories, as well as low and high budget ones. The exhibition included discussion between citizens, designers and authorities. The idea evaluation by the locals led to a selection of three concepts

14 D. Keyson and A. M. Bruns, "Empirical research through design". *Proceedings of the 3rd IASDR Conference on Design Research*, Delft, The Netherlands, 2009

Fig. 3

for further development, all requiring long term investment. "The citizens argued that, although they might need to wait longer to see the results of these projects, they consider them as more sustainable to the entire community comparing to quick and cheap fixes", Stangel and Szóstek[15] explain. (Figure 3)

The study showed that participatory methods provide us with a new way of building sustainable and responsible strategies for urban environments, with a high level of activation of the local community.

2a. Parking day

PARK(ing) Day, as explained by its founders, "is an annual open-source global event where citizens, artists and activists collaborate to temporarily transform metered parking spaces into PARK(ing) spaces: temporary public places. Since 2005, PARK(ing) Day has evolved into a global movement, with organizations and individuals (operating independently but following an established set of guidelines) creating new forms of temporary public space in urban contexts around the world."

A call for participation on the Park(ing) Day website[16] underlines the off-institutional character of the event, "challenging existing notions of public urban space and empowering people to help redefine space to suit specific community needs," as they say. Years of practicing this one-day event around the world enabled network founders of creating a starter toolkit – an open source manual that helps newly joined groups to organize the event in an effective way, learning from previous experiences.

Started as a basic "tree-bench-sod" park typology first modeled by San Francisco based art and design studio *Rebar*, the interventions have gone far beyond it in recent years, as explained by the founders of the event – "participants have built free health clinics, planted temporary urban farms, produced ecology demonstrations, held political seminars, built art installations, opened free bike repair shops and even held a wedding ceremony. All this in the context of the most modest urban territory – the metered parking space."

This evolution testifies the true power of the platform – it re-values metered parking space, draws attention to issues that are important to the local public and "in-

15 M. Stangel and A. Szóstek, *Empowering citizens through participatory design: A case study of Mstów*, Gliwice, Poland, 2015.

16 Parking Day, http://parkingday.org

Fig. 4

spires and stregthens citizens to participate in the civic processes that permanently alter the urban landscape."

This expanding global event is significant for the subject of this article in terms of promoting individual engagement in the city, on a small scale, not necessarily with big urban issues, but by initiating a happening that makes one's city more pleasant and fun to live in.

2b. Be a building hero

This is a Philadelphia-based organization whose mission is introducing the participatory design model as a way to "engage people of all ages in the design of their cities and help lay the foundation of an incomparable future for community-generated civic innovation," as stated in their Mission[17]. What makes it relevant as a case study for this article is the fact that empowerment of the community is their core value and basic purpose. Their declared ambition is to motivate community-design leaders, practicing participation on a „"small scale, needs-driven, action-oriented and collaborative basis." The organization is nonprofit, and provides free training in design, various DIY fabrications, collaboration, leadership and entrepreneurship. They work as facilitators on specific projects, with individuals and groups already involved in some kind of participatory design project, as well as those who want to gain valuable design and leadership skills for transforming their community and engaging in addressing specific problems in future. (Figure 4)

Acting as a platform for education and skills development for youth and adults from diverse social and economic backgrounds, this initiative promotes participation as a powerful tool and inspires the partakers to become the next generation of civic change agents.

2c. High Line, New York

After two previous small scale – big impact projects, we come to a curious case of High Line reconstruction project in New York. It is interesting to finalize the series

17 The Building Hero Project, http://www.tinywpa.org/buildinghero/

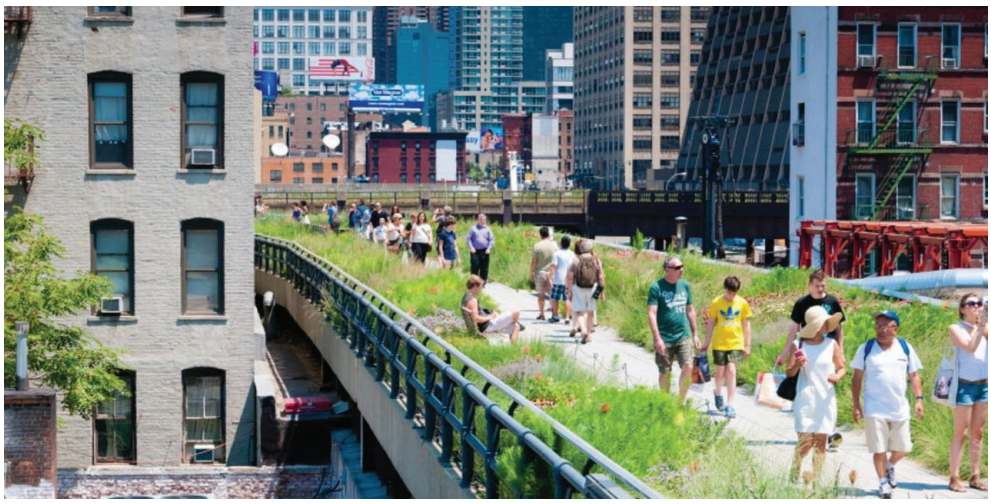

Fig. 5

of examples with this one, since it sheds a new light on the subject and introduces some dilemmas.

High Line is a 2.3 km long elevated linear park, formed on a segment of a derelict West side railroad line, spanning above parts of Manhattan, Meatpacking district and Chelsea.

The revitalization of a rail bed covered in weeds was initiated by a group of neighborhood activists gathered around *Friends of the High Line* organization, founded by local residents Robert Hammond and Joshua David. The *Friends* formed a project proposal on how to preserve and transform the viaduct into a public open space. Their major argument in the process of lobbying in the City Hall was economic – they estimated that this park in the sky would increase local real estate values and thus boost the city's tax revenues. They also argued that a novel park would become a tourist attraction with an estimation of 400,000 visitors per year. The project was recognized by the civic administration and was put into realization after providing financing from a public-private funding alliance. Less than a decade after its initiation, the rehabilitated space proves *Friends* have underestimated on both counts of the arguments the project was pursued upon: tax revenues are four times than the volume of the investment, additional non-predicted economic activity was started off and the number of tourists reached a million in the first year and 5 million in 2014, five years after the ribbon cutting.

Apart from the initial revitalization proposal, participation was not applied as the design method in the development phase. Designed by Diller Scofidio + Renfro architects, the High Line is often referred to as a masterpiece of urban design, civic jewel, and visionary project, triumph of neighborhood organizing – all based on the huge economic success and stirring up the further development. (Figure 5)

But, there is the other side of the story and it is happening to cities worldwide – **gentrification**. This is now a common but still controversial urban phenomenon – a dramatic change of the urban environment caused by a process of renovation and revitalization of the rundown neighborhoods. Gentrification brings new users of public space and real estate while sweeping out the old ones with new development prices. There are many discussions going on whether it should be regarded as a negative aspect of the city development, but since this is not the subject of the article, we will focus on the case of the High Line and try to give observations on the project consequences in the eyes of the former locals.

We could even call this case of gentrification a hyper one, since it happened in only a couple of years after the park was inaugurated. Additionally, the change was a drastic one – from the meatpacking plants to the corporate district, mainly as the result of visitor numbers and popularity of the place with tourists. "By the time the High Line's second phase opened in 2011, the small businesses in its shadow were dropping like flies, making room for massive, high-rise development exclusively for the global super-rich," say the authors of the Metro's article "High Line's popularity comes with side effects for small businesses."[18].

But this opposes the basic logic – should not the increased numbers in visitors boost local economy? Maybe, if they actually visited the surroundings of this major attraction. But, as one of the iconic neighborhood restaurant's owner says in the same article – tourists **don't come down**. "They get off their big tour bus down at Gansevoort, walk to the end, and then the bus picks them up again. Most of them never get off the High Line."

Could this be avoided? Would the application of participatory tools prevent the heavy consequences to the neighborhood?

As architects say in the interview for Dezeen magazine[19] – there was not much to design. The railway was already self-seeded, so they tried to renew the ruin while not ruining its character. Apart from the cultivated greenery, all that was added to the High Line park was wooden walkways, raised seating areas and viewing points. Therefore, we could agree that there was no substantial need for involving citizens, since there were no critical issues to be solved or discussed. And, truthfully speaking, there are no actual objections to design.

When asked about the negative gentrifying force of the park, Diller said that they were "unsettled" about the potential for "monoculturalism", but added that change was inevitable in New York: "In order to have done [the project] at all it had to be spoken about as a way for this part of the city to develop because otherwise there would have been no money put into it by the city," said Diller.

So we have a paradox – the fact that it is a thoughtfully designed park in the sky, makes High Line highly magnetic, but also highly alienated from its environment – it became a self-contained entity that put a dark shadow on the neighborhood that strongly fought for it.

"When we opened, we realized the local community wasn't coming to the park, and the three main reasons were: they felt it wasn't built for them, they didn't see people like them there, and they didn't like the programming," said Hammond, one of the founders, for New York Times.[20]

The case of this project brings us to a question: could this initiative be considered a success, regardless of its economic triumph, bearing in mind that the neighborhood changed both its physical and demographic structure? Is this the price of the inevitable development and could it have been foreseen through the participation of citizens?

One more curious fact is that the park is run by the *Friends of the High Line*, which we could take for a considerable achievement and the proof that there were no

18 High Line's popularity comes with side effects for small businesses, https://www.metro.us/jeremiah-moss/high-line-s-popularity-comes-with-side-effects-for-small-businesses/tmWnjf---f5s7xJZOAWe3s

19 Diller Scofidio + Renfro interview, https://www.dezeen.com/2014/11/03/elizabeth-diller-ricardo-scofidio-interview-high-line-new-york/

20 *In the shadows of the High Line*, http://www.nytimes.com/2012/08/22/opinion/in-the-shadows-of-the-high-line.html

presumptions on the outcomes of the project, but that this is one of a kind example of a participatory effort that has outgrown its roots, "a victim of its own success", as Hammond said for Co.Design. In fact, Hammond and David set up a platform called *High Line Network* in order to help other projects avoid the gentrification and inequality that occurred in High Line surrounding and create all-inclusive public environment.

IMPLEMENTING PARTICIPATORY METHODS IN SERBIAN PRACTICE[21]

After the international case studies section we will present the participatory design experience carried out in Serbia, through the process of reconstruction of a Belgrade primary schoolyard.

The school in question – "Mihajlo Petrović Alas" is located in the city center of Belgrade. Besides being almost 90% covered in concrete, without trees or greenery, it has never been renovated since the school was built in 1959. Hence, there are now many spots in the schoolyard that can jeopardize children's health and safety. Some of these problems are: the old and damaged concrete surfaces with exposed steel bars, a very low fence that can very easily be stepped over even by very young children, lack of gates that can be closed and locked.

After having pointed out these problems, and after several unsuccessful attempts to persuade the authorities to remediate and reconstruct the schoolyard, parents, among whom is the author of this paper, decided to take action on their own and organize themselves in order to solve this problem. A team was formed on a voluntary basis, consisting of parents who were willing to contribute in different ways: with various skills, knowledge and competencies, links and connections in relevant institutions, devotion of time, financially etc.

Since we, as parents, initiated the reconstruction ourselves and were the ones that were supposed to carry it out from start to end, we saw a great opportunity and freedom to do it, hence, in a way that enables all the users' voices to be heard – by applying the participatory approach.

Since there are not many cases of participatory design in Serbia, we had to make our own first baby steps in the whole process and learn along the way. We had to investigate and broaden our own knowledge of the methodology and the process of participatory and cooperative design in the specific environment of a local elementary school with limited financial resources.

Participants and time dynamics of the Project

Participants in this Project were: parents of schoolchildren, school children, school staff, the local community and neighborhood of the school, urban design students from the Faculty of Applied Arts, local authorities – policy and decision makers.

The project started at the beginning of the year 2017, and had the following phases: 1) data gathering; 2) data analysis and defining the priorities; 3) defining the architectural design assignment (architectural brief) based on the outcomes/priorities of the data analysis; 4) designing possible architectural solutions; 5) defining the final architectural design; 6) building

21 Part of the paper co-authored by the author of this paper: V. Večanski and B. Branković. *Designing with the Participation of the Community – an On-Going Project of Redesigning a School Yard in Serbia*. Helsinki, Finland, 2018

Fig. 6

Data gathering

In order to gather the data necessary for the beginning of the restoration project we wanted to investigate what were the real needs and problems of all groups of users: mainly school children, school staff and parents of schoolchildren, but also the local community and neighborhood of the school. We organized and conducted parent talks, interviews and talks with school staff, discussions with neighbors, as well as workshops with schoolchildren. These workshops were designed by a team of art and architectural educators (among the parents) and were led by school teachers and urban design students as mentors. The workshops were designed to encourage and help children express their own visions about the present, and ideas for the future of the schoolyard, both through drawing and building 3D models. Also, as a contribution to the practical workshops, the children filled out a questionnaire pointing out the problems and the needs that they saw in relation to the schoolyard. (Figure 6–9)

Images 6–9 represent some of the schoolchildren's ideas for improving the schoolyard. Children drew their ideas on a plan of the court (images 5, 6), and on black and white photos of different spots of the schoolyard (images 7–9). Images 10 and 11 represent some of the children's ideas for the schoolyard developed through 3D modeling. (Figure 10–14)

Fig. 8–9

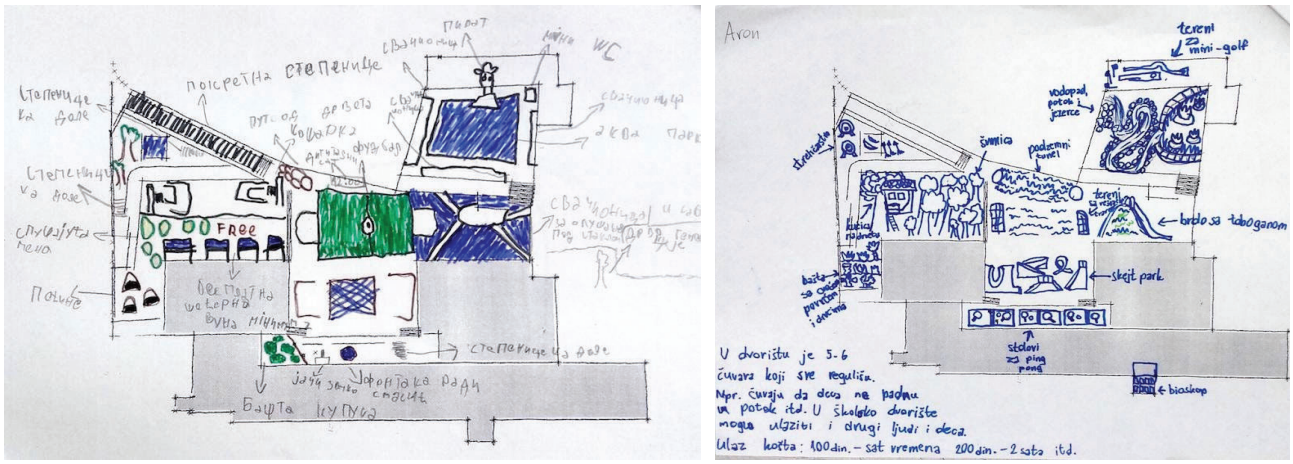

Fig. 10–12

Data analysis – defining the priorities

All the data gathered was then analyzed both statistically and through qualitative content analysis and the conclusions pointed to three major priorities:

1. Safety and hygiene: fence and gates, remediation of concrete surfaces. The schoolyard has two diagonally positioned gates that trace a shortcut through the urban block, so the yard became a fast route that brings many unwanted visitors and passersby. Among them, there are also many dog owners that use the schoolyard for walking their pets, often leaving mess behind. Old concrete sport stands are run down, with steel bars exposed, and in need of reconstruction.
2. Improvement: new materials, sitting areas, educational content, outdoor classroom, greenery and sensory garden. Research conclusions indicate the lack of ambient quality of the space, as well as the opportunities for leisure, rest

Fig. 13–14

and touch with nature. Hence, one of the priorities is enriching the palette of materials and introducing wood, horizontal, vertical and educational greenery, and new polymer surfacing for the sport courts. As far as the functions are concerned, apart from the sport activities that dominate the space, there is a strong inclination towards new content such as an outdoor classroom, sensory garden and rest areas.

3. Mobilizing and strengthening of the local community and giving the children an example of good practice – by engaging all of the relevant parties and groups of users on a common cause.

The final step of this phase was to weigh the priorities defined through data analysis with respect to the available conditions: legal, urban, heritage, spatial, organizational and financial. The outcomes were then applied by the design/organizational team of parents and urban design students from the Faculty of Applied Arts as a starting point for developing the architectural design assignment of the schoolyard.

The architectural design assignment

All of the conclusions from the previous phases were translated into the technical language of architectural design assignment defining the necessary elements and requirements of the future design.

a. Safety
b. Multifunctional space adequate for handling various scenarios of use and different age groups simultaneously (sports fields, outdoor classroom, leisure and rest…)
c. Visual noninvasive design concerning the neighborhood – closeness of a museum (protected heritage building)
d. Space that encourages physical activity and movement
e. New rest and leisure zones
f. New greenery

Possible solutions and design options

a. Safety

The old fence is not an actual barrier – it can easily be stepped over from both inside and outside of the yard. Architectural design assignment defines the need for increasing the height of the fence as well as locking of the two gates, so the yard would not serve as a shortcut any more. (Figure 15–16)

Fig. 15–16

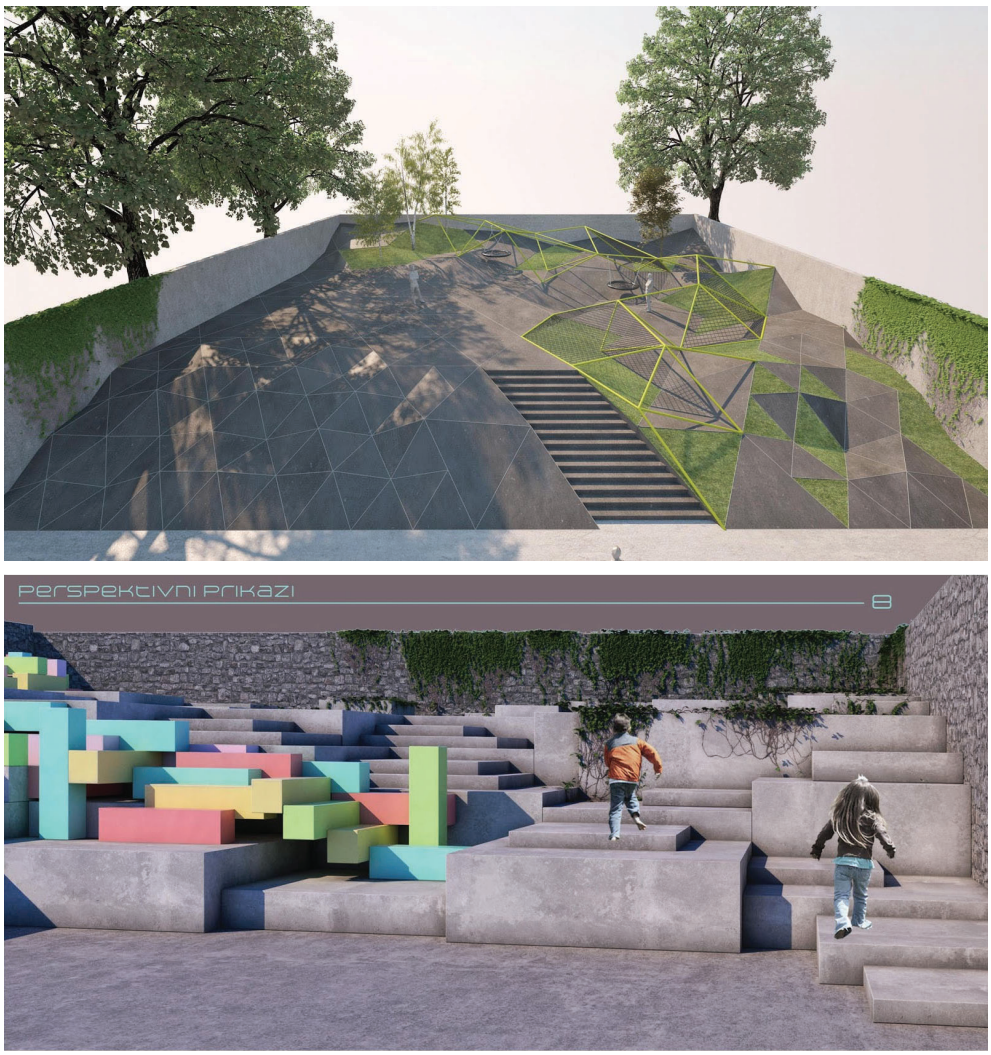

Fig. 17–18

b. Multifunctional space

The space needs to offer more opportunities for diverse activities and treat children of all ages equally. Younger children should have a secluded zone for playing and enhancing physical activity, while older ones play sports, walk or sit in small or big groups and all of them together should enjoy the ambience of the yard more than it is the case now. (Figure 17–18)

c. Visually noninvasive design concerning the closeness of the museum (protected heritage building)

Closeness of the protected heritage building and the regulations this situation imposes, implied the use of visually noninvasive architectural language, cautious of not interfering with or jeopardizing the old structure in any way. It was also important not to disturb its visual perception. (Figure 19–20)

d. Encouraging physical activity

Since teachers particularly accented the need of enhancing physical activity of the youngest pupils, who do not use the big sport fields yet, a separate zone was devoted to creating a polygon-like playground for various activities, paying attention to the needs and wishes of the children, as well as the possibilities the space offers. (Figure 21–24)

Fig. 19–20

e. New rest and leisure zones and new greenery

Currently, nature is almost completely absent from the schoolyard, and as the priorities implied – special attention was devoted to finding all the possible ways of applying different types of greenery – horizontal, vertical – with new trees, as well as green walls. Complementary to natural elements, zones for rest were designed to enable leisure and enjoyment. (Figure 25–28)

The final architectural design

The final architectural design implies "packing" these different solutions into one architectural design. The participatory approach directed the whole design process towards collaboration of many parties, so the final architectural design is processed in phases equivalent to the spatial zones of the schoolyard and engages a team of urban design students with a professor as a mentor, and an organizational team of parents and school staff coordinating the whole process.

After acquiring the final architectural design, several further steps are to be taken.

Fig. 21–24

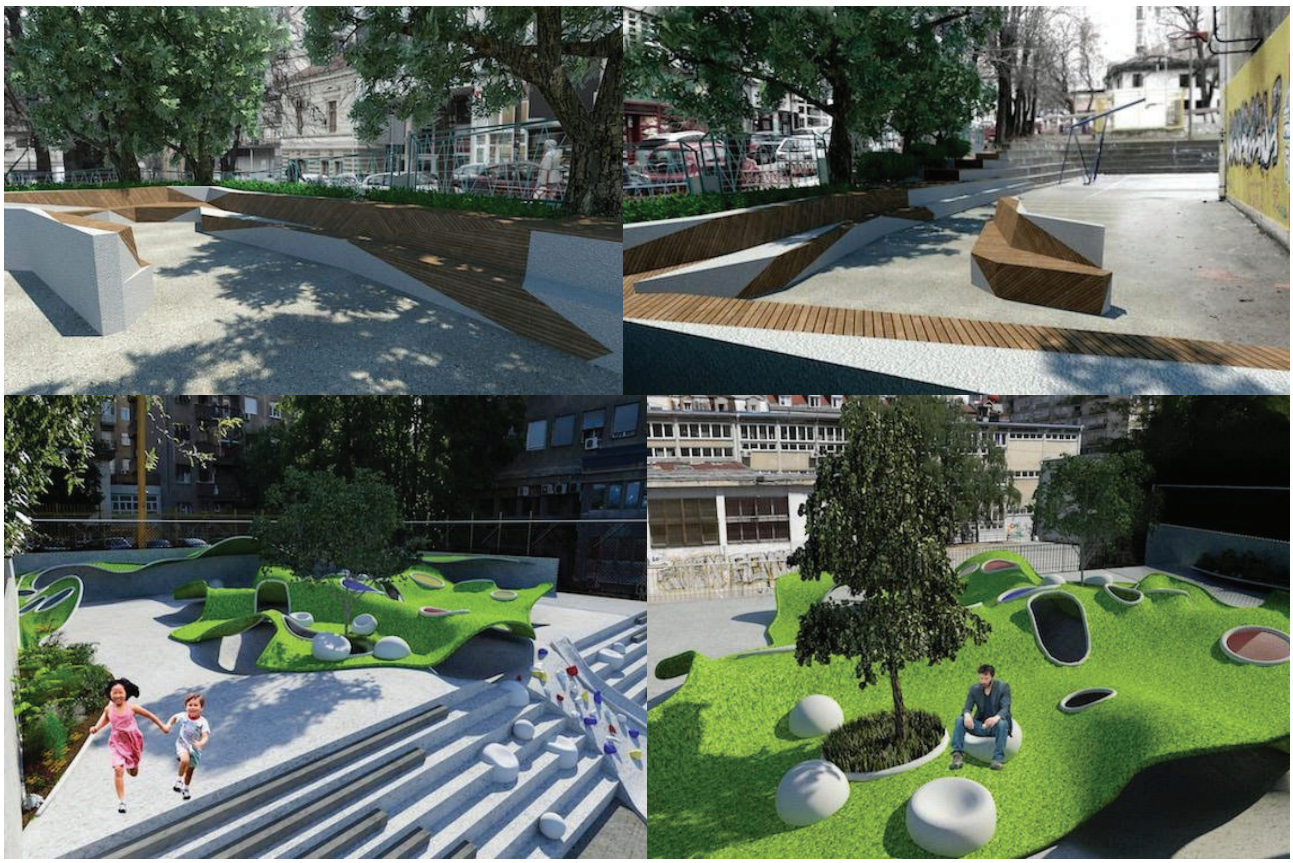

Fig. 25–28

Fig. 29

Further steps

- acquiring comprehensive documentation and applying for the building permission
- fundraising from both small and corporate contributors (organizing a donor exhibition in the school; applying for financing from various government sponsored plans, providing help from companies, parents' network – services, materials etc.)
- building in phases

Time flexibility and ability to conduct the reconstruction in several stages are one of the most important requirements from the school management, since it enables them to raise funds step by step and realize parts of the project separately. So far, phase 1 including the new fence has been carried out, and the rest of the yard is to be undertaken as phase by phase building. (Figure 29)

CONCLUSION

Building in a multilayered urban environment is a complex undertaking, pervaded with responsibilities and outcomes that transcend the competences of a single designer' or designers' team. Our aspiration for democratic and sustainable solutions for our social and urban life issues brings us to a pragmatic yet just approach of including public in the decision making process. Participation of those directly affected by or interested in the design outcomes ensures both the risk and responsibility dispersion and enables empowerment of the community for future effective civic engagement. Tools and methods of this fluid and ever evolving process are constantly developing, adaptive to the specific programmatic and spatial framework.

Implementing this bottom-up experimental approach in Serbia, by engaging the community, school staff, children, parents and design students on a single project appeared to be complex and slow in realization, as expected. It has proven the importance of participation and collaboration – bringing us knowledge and experience none of the parties would have acquired working separately. It is encouraging that the project has proven successful in fund raising and communicated the message of the undertaking. And finally, now that it has been brought to reality, we will learn how well it will perform in practice.

ILLUSTRATIONS

1: Components of a good participatory design process, source: Participate in Design, http://participateindesign.org, accessed 20th December 2017.
Компоненте доброг процеса партиципативног дизајна. Извор: Participate in Design, http://participateindesign.org.
2: Fruit and Energy Farms, the Thunmanskolan's schoolyard in Knivsta (Sweden). Source: Stealth Unlimited, http://stealth.ultd.net/?p=1503, accessed 18th December 2017.
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3: Open air exhibition of design proposals in Mstow. Source: Stangel M. and Szóstek A. (2015)
Изложба предлога дизајна на отвореном у Мстову. Извор: Stangel M. and Szóstek A. (2015)
4: Skills development. Source: The Building Hero Project, http://www.tinywpa.org/buildinghero/, accessed 20th December 2017.
Развој вештина. Извор: he Building Hero Project, http://www.tinywpa.org/buildinghero/.
5: High Line. Source: www.amny.com
Слика 5: Висока линија. Извор: www.amny.com
6 and 7: Practical workshops with schoolchildren led by urban design students as mentors, source: author's project archive
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16: Fence. Possible solution, preliminary architectural design, source: author's project archive
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19: Museum (in the background). Actual state, source: author's project archive
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25 and 26: Solutions for rest and leisure zones. Preliminary architectural design, source: author's project archive
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27 and 28: Solutions for rest and leisure zones and new greenery. Preliminary architectural design, source: author's project archive
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Биљана В. БРАНКОВИЋ

ПАРТИЦИПАТИВНИ МЕТОДИ У УРБАНОМ ДИЗАЈНУ

Резиме: Циљ рада је приказ теоријског оквира партиципативног метода у планирању и пројектовању у области урбаног дизајна – почевши од традиционалних метода и њихових ограничења до савремених начина укључивања различитих актера и интересних група у процес доношења одлука приликом пројектовања јавних простора. Колико год архитекти и дизајнери били информисани, темељни и одговорни, можемо ли заиста очекивати да обухвате све промењиве у урбаном окружењу и својим дизајном помире интересе најразличитијих група и актера? Одговор је једноставан – не можемо, и не би ни требало, јер постоји начин да се ризици које носи традиционална методологија урбаног дизајна смање – увођењем учешћа заједнице у процес истраживања и пројектовања. Како је препознато од стране теоретичара урбаног дизајна – заједница је снажан актер, а градски простор захтева демократичан приступ. Овај приступ подстиче укључивање свих чинилаца и актера – од директних корисника до доносилаца одлука и инвеститора – тежећи препознавању и сучељавању њихових потреба и предлагању одрживих решења. Овај приступ називамо партиципативним дизајном.

И теоретичари и они који спроводе овај приступ у пракси, подвлаче питања ризика, одговорности, самоодрживости и оснаживања заједнице, као кључна:

- Смањује се ризик – и повећавају шансе за постизање успешног дизајнерског исхода, уколико је наш пројектни задатак заснован на сазнањима о стварним проблемима и потребама људи.
- Одговорност за све могуће исходе партиципативног дизајн процеса се, осим на архитекте, дизајнере и инвеститоре, распоређује на све актере који доприносе процесу на било који начин.
- Партиципативни дизајн метод се заснива на ресурсима заједнице – људима, фирмама и организацијама и њиховим вештинама, знању и искуству.

Полазна тачка и основна претпоставка метода јесте да овај процес има дугорочно добар утицај на самопоуздање, снагу, интерне везе и ангажованост заједнице. Радећи на заједничкој визији, различити актери имају више шанси да разумеју супротстављене интересе и да формирају реалистична очекивања у односу на сопствене. Укљученост такође умањује отпор према другим интересним групама, што је врло честа појава у пракси урбаног планирања и дизајна.

Кроз анализу студија случаја, партиципативни дизајн се приказује као флуидни концепт – сваки просторни контекст и проблем захтева посебно пројекту прилагођен дизајн самог партиципативног процеса, који претходи акцији.

Док су принципи и теоријске поставке донекле статична категорија, испоставља се да се процеси, алати и методи испостављају као динамични и у константној промени и прилагођавању конкретном просторно-програмском оквиру, и требало би их одабрати међу многобројним опцијама: уличне анкете, комшијска дневна соба, дизајн радионица, дизајн клиника, отворена канцеларија, радионица мапирања, журка, разговори кроз шетње, тржница идеја, интерактивне изложбе, игра сценарија, игра улога, уради сам приручник, прототипирање.

Према Сандерсу и коауторима (2010), најкоришћеније технике укључују игру сценарија пореклом из позоришта, дизајн игре као платформе за дијалог и прототипирање које подстиче учеснике на ко-креацију концепата и прототипа.

Потом се фокус рада помера ка причи о реконструкцији дворишта основне школе “Михајло Петровић Алас” кроз приказ покушаја примене партиципативних метода у урбаном дизајну, у српском контексту.

Кључне речи: партиципативни дизајн, урбани дизајн, методологија дизајна, студија случаја