

The significance of early stages in participatory design for social sustainability

Ł. Rosiak

*Faculty of Civil and Environmental Engineering, and Architecture,
University of Technology and Life Sciences in Bydgoszcz, Poland*

Abstract

The source literature devoted to participatory design concentrates very often on studying preferences in feeling architecture, as the culmination and a really key case is the post-occupancy evaluation (POE). The participation of respondents, users in managing the architectural environment is established especially in the field of these elements, where creation takes place with the use of an easy means of communication – a drawing, graphics and also those, which are oriented towards picking out the subjective component of assessment, for which the objectification process is not so important. Such study recognizes individual preferences and it enables one to draw conclusions, relatively non-distant from social expectations, using statistics rules. In such constructed action, the effectiveness of participation is strongly conditioned on the range of ability to involve a big group of potential recipients of architectural design.

In investigations carried out for over 50 years of functioning of the social participation as the system of supporting the effectiveness of architectural design, oriented towards supporting local communities, the other proposals also appear, widening the range of possible participation. However, most of these actions take place far away outside the borders of Poland and therefore the mechanisms used in them are difficult to inculcate in the local area.

In the paper the significance of early stages of the Method Architektura dla Lokalnej Społeczności (AdLS) – Architecture for the Local Society is presented, which makes an attempt at improving social participation through constructing mechanisms of objectifying opinions of architecture recipients, involving them in constructing the language of dialogue, the system of multi-criteria assessment, selection of criteria and more conscious working within the confines of designing as well as building long-term social relations with simultaneously retaining rules

of adequate spatial environment management. The above-mentioned factors are directly connected with the rules of balanced development.

The author used the process of active communication, where numerous symptoms were found in the early stages of programming that is in a multi-media presentation, poll or participatory meeting. It seems that these small steps might be replies to responsive needs of local communities. In the present stage they can improve the process of socially accepted construction of elements, determining directions of design searching with retaining the rules of balanced social development.

Keywords: participatory design, architectural design process, design methods.

1 Introduction

The pressure on the realization of rules of balanced social development in Poland has increased significantly in the last decade. The contribution to this fact was the accession of Poland to the European Union in 2004.

A number of integration criteria, treaties and resolutions, which had to be adopted and became the ultimatum of admitting our country to join the ranks of the EU, are binding until the present day.

One of the criteria was the broader participation of society in taking decisions, directly concerning themselves with retaining the rules of balanced development, that is adopting the rules of social and civil participation.

Taking into account the structure of complexity and difficulty of the creation that is the Community of the Union, currently consisting of 28 membership countries, where the number of citizens exceeds 500 million, and where there are binding not only language, but also cultural and ethnic diversities, one can talk about the real challenge if we start analysing the issue of social participation on the level of the European Union, where traditional methods of management have to encounter difficulties.

However, spreading the general framework and guidelines of managing this creation to the local area might turn out to be easy and the functioning in less complicated conditions has the chance to bring better effects.

The issue of social participation might be a complicated point to inculcate in the local area, as in our country there is lack of tradition of social participation in the conscious civic attitude.

The other aspect is also the fact that the source literature devoted to participatory design concentrates very often on studying preferences in feeling architecture, as the culmination and a really key case is the post-occupancy evaluation (POE). Post-occupancy evaluation is the method of participatory design, treating the user of the building in an objective way, because it takes no notice of his actual needs, but only concentrates on studying preferences in feeling architecture. It deals with analysing the basic feelings, which the user experiences while staying in a building. This is, among other things, the research, i.e., feeling a temperature, air humidity or the other factors, which of course influence the feeling of the place or they statistically enable conclusions to be drawn, relatively non-distant from social expectations, but they are not the methodology leading to

the participation in deciding about the quality of architecture, already before its arising. And especially, as they do not meet the criteria of balanced development.

For over 50 years of the functioning of social participation in the world, the methods, which were managed to be worked out, would be able to inculcate, in propagating this issue within the territory of Poland. However, most of these actions take place far away outside the borders of Poland and therefore the mechanisms used in them are difficult to be inculcated in the local area. In order to improve the functioning of the issue of social participation, the design team AF4LAB [1] of the Department of Architecture of the Faculty of Civil and Environmental Engineering and Architecture from the University of Science and Technology in Bydgoszcz worked out the method *Architektura dla Lokalnej Społeczności* (AdLS) – Architecture for the Local Society.

2 Social participation and balanced development

The concept of social participation can be described as the participation of citizens in managing matters of the community, whose members they are [2]. The citizens, getting the possibility in taking decisions on spatial development, are more likely to be involved in actions for the benefit of their nearest environment [3]. With simultaneous building of integration and long-term social relations.

The broadly defined issue of realization of balanced development rules is an obligation resulting from the main legislation, on the basis of which the Polish state functions – the Constitution of the Republic of Poland [4]. There results from the Constitution, among other things, the fact that proper relations in local communities require the activity of inhabitants in solving any problems of their environment.

Social participation supports the balanced development through:

- building spatial awareness,
- valorization of space and its reflection in the social consciousness,
- describing features of introduced architecture, which would express a message and at the same time the social identity,
- programming participation of the community in creating architecture.

3 Local area: AdLS method

The lack of tradition of the social participation in the conscious civic attitude and difficulties, which are involved in breaking down this barrier, gave the basis to the research on working out the method *Architektura dla Lokalnej Społeczności* (AdLS) – Architecture for the Local Society. This method searches for mutual relations in solving problems, extending understanding of the significance of spatial environment and first of all it makes an attempt to improve social participation through constructing mechanisms of objectifying opinions of architecture recipients, involving them in constructing the language of dialogue, the system of multi-criteria assessment, selection of criteria and more conscious working within the confines of design.



The method *Architektura dla Lokalnej Społeczności (AdLS)* – Architecture for the Local Society, is the result of critical analysis of design process, recognizing the structure of the decision-making process, having the influence on creating architectural solutions (taking into account binding decisions, taken by entities working outside the design team) as well as from the selective necessity, comparative analysis of available models of social participation and their effectiveness in building the dialogue between authors of the project and partners of designers – architecture recipients [5]. It assumes that its fundamental role is giving a character to architecture through getting the key information from the people emotionally connected with the place included in design operations [6].

The basic aims of the method are:

- forming the effective communication path, which might turn out to be helpful while taking decisions,
- recognizing and full-scale reflection of the needs of potential users,
- introducing the possibly high level of control of selection processes,
- enabling people not professionally connected with the profession of architect, but emotionally connected with the place to be included in design operations, to give a character to architecture.

The method *Architektura dla Lokalnej Społeczności (AdLS)* – Architecture for the Local Society uses in practice among other things factors of information transmission from lower levels of the participatory ladder, i.e. a multi-media presentation, meetings, a consultation, a poll as the way to get information. Yet, its aim is not to omit or exclude the highest degree, which co-deciding is.

However, through the used methods, helpful in getting information, it permits better reaching the respondents and describing more complete image of their expectations. And, what is more important, the adequate forming of the spatial environment, fulfilling their needs, that is meeting requirements of balanced development rules. The hybridity of the whole structure consists of suspecting relations in issues potentially not associated with an encyclopaedic explanation of issues of local social participation. However, the combination of these non-matching elements of the game makes up the coherent whole, thanks to which one may communicate with each other through a simple effect and may work out the way of compromising urban and architectural solutions in spite of differences inside the community.

The team has carried out research in three centres within Poland so far:

- Bydgoszcz os. Wzgórze Wolności – Centrum Lokalnej Społeczności (CLS) – Local Community Centre,
- Oborniki near Poznań – Obornicki Ośrodek Kultury – Culture Centre in Oborniki,
- Pniewy near Poznań – programming of the land use at Dworcowa Street. The present condition of this land use introduces disarray in the urban fabric of the place.

For the first time, the practical use of the method took place in 2014 in the participatory meeting organized by the inhabitants of Wzgórze Wolności district in Bydgoszcz.



4 Multi-media presentation

The multi-media presentation as an interpretation of architectural knowledge in the form of architectural proposals and realizations is the crucial element of participatory meetings regarding the visual factor, which, in this special case, manifests itself most effectively. The presentation is the form of interactive expression, thanks to which a recipient combines a non-verbal message with a verbal one as completely as it is possible and it is helpful for him/her in understanding and acquainting him/herself with elementary components of a professional addressee's language. The visual communication is also directly connected with visual codes. Codes in architecture occur both in the area of idea reception and in use. Umberto Eco claims that "The whole genius of an architect and pattern designer is not enough to make a new form functional (and to form a new function), if it is not based on codification processes" [7]. Problems resulting from the communication process are connected with contaminating recipients with permanently saved visual codes, which have been functioning in their minds for years and no factor has appeared to break them. Affordances, which we deal with, are strong determinants of behaviour [8]. That is why it is so important to use an appropriate language of communication, the code system, which will be possible to be absorbed and the message read by a recipient [9].

In spite of all difficulties, which appear in the programme of participation, among other things, the lack of communication and the lack of initiating relations based on partnership among participants of the whole process, the visual communication eliminates in this stage fears and difficulties, regarding the statements of participants. It permits forming the common language of information exchange and emerging adequate solutions in the compromise inside the community, in spite of differences in views. Through a picture, drawing the relations become legible and they enable the parties to better understand each other. On the basis of examples, participants are able to express what their expectations are. Connected in this way, associations eliminate unnecessary wasting of natural resources, because the local people absolutely understand the significance of spatial environment and its shaping with respect to their needs. In simple terms, what they like and what an architect should avoid, as it does not meet their expectations. The above statement can be referred to the words of Carlos Ruiz Zafón "One of childhood's traps consists of the fact that it is not necessary to understand if you want to feel" [10]. This case is similar to the quoted statement. In order to include actively non-professionals in the design process, it is necessary to overcome a number of difficulties that arise in the stage of including. Then, the best way is to refer to simple procedures and activate mature people with the thought process of a child, who sees the world with senses, through eyesight, touch, taste and it reacts adequately to stimulants and enhancers, encountered in its way.



5 Participatory meeting

The other tool, but similar in meaning, is a meeting. It is a form of using the space in order to communicate. Proxemics, thanks to which participants get to know and acquire confidence with each other [11]. In a sense, they are becoming close to



Figure 1: Participatory meeting combined with a multi-media presentation to a group of representatives of the local community of one of the districts in Bydgoszcz City.

each other, eliminating the distance. They react not only to presented architectural proposals, but they are also influenced by the reception of the other, his non-verbal reactions, i.e. voice, facial expression and attitude.



Figure 2: Open attitude of the moderator combined with a smile on his face, initiating understanding or at least an attempt of establishing a closer relationship.


The participatory meeting is the reinforcement of quite an intensified contact with users, which is provided by the methodological process AdLS. In this case, a lot of things depend on operations and skills of the research team and, in particular, on the positive attitude, efficiency and fitness of the speaker, which is the level of his stimulation. It has a close relation with aiming the human body at keeping the optimum of stimulation. Because of the fact that the environment might disrupt it significantly, that is why reactions of “avoiding – bringing closer” type are the expressions of aiming of the human body at keeping the optimum state of stimulation [12].

Emotional reactions of stimulation, which have a direct connection with the reception of the moderator (facilitator), influence reactions of people from these surroundings and they are stimulated or not to further operations. From the psychological point of view, the attitude, which is presented by the research team, emanates on the reactions to subjects. It might lead to the elimination of internal conflicts in the area included in the research or just the opposite, the conflict might be escalated.


The participation of local communities is the process of planning on a large scale of environment, determining directions of proceedings for small groups and organizations. Changes as well as conflicts occurring in this type of participation require activation of more complicated processes than those which take place in participation of small groups as well as in the organizational participation [13].

6 Opinion poll

The democratic attempt of combining the process of architecture programming with the process of criteria selection of social expression is an opinion poll. The questionnaire of the poll is a research tool, which helps in getting from respondents the replies, which the researcher cares about. The questionnaire should be constructed in such a way that it would encourage a respondent to give a reply



KATEDRA
ARCHITEKTURY



A4F LAB
Laboratorium Katedry Architektury

Wydział Budownictwa, Architektury i Inżynierii Środowiska
 Uniwersytet Technologiczno-Przyrodniczy im. Jana i Jędrzeja Śniadeckich w Bydgoszczy
 Ul. Prof. S. Kaliskiego 7, 85-796 Bydgoszcz

Procedura badawcza:	AdLS 02	Nr 02	Data: 07.2014	Etap: Programowanie
------------------------	------------	----------	------------------	------------------------

Ankieta nr 01 pokazała, iż najsilniejszym motywatorem stworzenia Centrum Lokalnej Społeczności jest integracja społeczna mieszkańców osiedla. W związku z tym pytania drugiej ankiety zostały opracowane tak aby pomóc nam lepiej zrozumieć co rozumieją Państwo pod tym pojęciem i tym samym stworzyć odpowiednio dopasowany program funkcjonalny budynku.

Ankieta 02 – Powiązanie idei z programem:

Zapoznaj się najpierw z treścią całej ankiety, zanim zaczniesz ją wypełniać. Po namyśle wybierz dowolną kolejność wypełniania odpowiedzi

Pytania o związek idei z programem obiektu

Lp.	Pytanie	Odpowiedź
1.	Czy Państwa zdaniem ideę integracji społecznej wyrażać będzie:	A) Wspólne pomieszczenie na parterze budynku umożliwiające korzystanie z przylegającego ogrodu, ulicy? B) Wspólne pomieszczenie na piętrze budynku, odizolowane od przestrzeni ulicy i ogrodu?
2.	Czy Państwa zadaniem rozwojowi zainteresowań i edukacji sprzyjać będzie:	A) Wspólne pomieszczenie z wydzielonymi pomieszczeniami dodatkowymi? B) Wspólne pomieszczenie umożliwiające

Figure 3: Fragment of the anonymous poll, worked out for the benefit of social research.

simultaneously providing simple expressions, which will clarify the appropriate reception of the poll.

Through the agency of local offices, schools or other local institutions, the signal is transferred to a possibly wide audience, and co-decision makers. In a similar course of action, there are also questionnaires gained from respondents. It does not matter whether surveying takes place with a traditional method or using modern ways, in the age of digitisation and the Internet; the effect is the initial recognition of social preferences.

This form is anonymous – it does not require your own personal identification. The identification takes place only on the basis of the sex, the age range of respondents taking part in the research as well as a generally defined place of residence. The form of reply that is generated does not leave a psychological mark, which respondents might be afraid of, regarding public expression of your own opinion. It enables the community, within the confines of the analysed issue, to give free and true replies. Questions are of different character. From multiple choices, including indications concerning possible ways of changing the programming of used public space, to open-ended questions, in which respondents have the possibility of individual reply.

7 Results of analyses: efficiency of early participatory stages

The author wants to present through this short paper the significance of the early stages of implementing the AdLS method in participatory design for the benefit of socially balanced development. Methods, which were chosen for the presentation of this issue, are fragments of the research that the design team of the laboratory AF4LAB carries out among the local communities located within the territory of Poland. The author of the publication is an active member, included in this design team. He realizes actively the tasks of gaining poll questionnaires from subjects, enters records in the electronic database, takes part in participatory meetings, and carries out the analysis of collected material along with carrying out statistical statements of analysed materials in the form of graphs and diagrams. He prepares a short description for each question, summarizing the result, and works out the final conclusions. Thanks to his position in the team, he has the right to inspect the collected data up-to-date, which make up the reliable information in the present paper.

In the stage of current research, which the team is, it can be specified that the crucial point is, the lack of tradition of the community's participation in a consciously deciding about the shape of their nearest environment, described at the beginning of the work, and in consequence, about barriers connected with that. Among other things, difficulties in expressing views, an enormous problem connected with gaining crucial information or difficulties with verbalising your needs to a programmer. This is a strong psychological block, resulting from the lack of courage to present them in public [14]. Or a public imprint, which they might be afraid of, expressing their own free opinion, they require a special closer look at developing and improving the process of communication, which will help an architect to shape appropriately the spatial environment without omitting the



rules of balanced development along with simultaneously meeting expectations of local communities.

Crucial, in fulfilling this demand, the early stages of the participatory AdLS method seem to be helpful.

The multi-media presentation, the participatory meeting and the opinion poll are exemplary cases, determining the right perceiving of the needs of building participatory processes in Poland on the basis of abilities to develop compromises and urban and architectural solutions in spite of differences that may occur in the views of communities.

It seems that these small steps might be the replies to the responsive needs of local communities. In the current stage, they can improve the process of socially accepted constructing of elements, determining directions of design searching with retaining the rules of balanced social development.

References

- [1] Design team created from scientists of the West Pomeranian University of Technology in (Team manager: R. Barełkowski) and the University of Technology and Life Sciences in Bydgoszcz – L. Chlasta, Ł. Rosiak, P. Brzeziński, cooperation M. Jarząbkiewicz, A. Tuszyński.
- [2] Hausner J., *Komunikacja i partycypacja społeczna. Poradnik*, MSAP AE Cracow, Cracow 1999.
- [3] Pawlewicz K., Pawlewicz A., *Rola partycypacji społecznej i rzecz zrównoważonego rozwoju obszarów wiejskich*, <http://www.uwm.edu.pl/kaies/images/pawlewicz/2010/2010.pawlewicz.partycypacja.pdf>, retr. 2016 -03-05, 71–80, 2010.
- [4] Constitution of the Republic of Poland from April 2, 1997 r., *Journal of Laws* from 1997, No. 78, item 483 as amended.
- [5] Barełkowski, R., *Problemy implementacji projektowania partycypacyjnego w Polsce*, *Przestrzeń i Forma*, 22, vol. 3, Polska Akademia Nauk Department in Gdańsk, ISSN: 1895-3247, Szczecin, 25–46, 2014.
- [6] Rosiak Ł., *Partycypacyjna metoda projektowania architektonicznego. Kazus wstępnej fazy implementacji metody AdLS*, w: Barełkowski R., *Przestrzeń jako laboratorium. Perspektywy. Studia. Interwencje*, Wydawnictwo Exemplum, Poznań, pp. 38–45, 2014.
- [7] Eco U., *Nieobecna struktura*, Wydawnictwo KR, Warsaw, 2003.
- [8] Bell P.A., Green T.C., Fisher J.D., Baum A., *Psychologia środowiskowa*, Gdańskie Wydawnictwo Psychologiczne, Gdańsk, p. 18, 2004.
- [9] Kaus M., *Kody wizualne i uwarunkowania społeczne w nauczaniu projektowania architektury mieszkalnej*, in: Idem R., *Nauczanie w sztukach projektowych*, Koszalin University of Technology, 2016.
- [10] Zafón C.R., *Cień wiatru*, Wydawnictwo MUZA S.A., 2001.
- [11] Hall E. T., 2005, *Ukryty wymiar*, Warszawskie Wydawnictwo Literackie MUZA S.A., Warsaw.

- [12] Bańka A., Architektura psychologicznej przestrzeni życia. Behawioralne podstawy projektowania, Poznań, 1997.
- [13] Sanoff H., Integrowanie programowania ewaluacji i partycypacji w projektowaniu architektonicznym. Podstawy teorii Z, Poznań, p. 71, 1999.
- [14] Luck, R., Dialogue in Participatory Design, *Design Studies*, Vol. 24, pp. 523–535, 2003.

