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N L Antonova, E V Grunt

Department of Applied Sociology, Ural Federal University named after the first President of Russia B.N. Eltsin, Mira 19, Yekaterinburg 620000, Russia

E-mail: helengrunt2002@yandex.ru

Abstract. The article considers citizens as a subject of forming the urban environment design. In the conditions of the city multi-functionality as a territorial entity, new requirements on the creation of urban spaces are imposed. The urban environment should meet the diversity of the population needs, while the city residents themselves become active participants in its planning and design. The primary data were collected using questionnaires and semi-structured interviews. 385 citizens of Yekaterinburg were questioned on the basis of quota sampling in order to the study citizens' opinions about the city of Yekaterinburg and to evaluate their role in the design of the urban environment. Semi-structured interviews (n=12) were organized for the citizens engaged in the city design on a regular basis. 94% of the respondents note the need to form a positive city image. 54% of the respondents believe that they are actors of urban planning. Yekaterinburg residents' express high willingness to participate in the city design (71%) and 78% of the respondents believe that they can influence on the making decisions by administrative structures. Our respondents consider the following basic mechanisms for implementing their own vision of urban space: discussion in social networks and participation in public hearings.

1. Introduction

Modern urbanization processes associated with the increasingly complex structure of society and globalization as a whole, actualize the attention of both scholars and practitioners to the formation of the city as a socio-territorial entity. The city is the most consistent and generally the most successful person's attempt to transform the world in which he \ she lives [1]. The city is a set of architectural and engineering infrastructure, originally invented, and then realized by a man [2].

The city can be considered as an arena of actions and interaction of social groups and communities and as an integrating element in the system of reproduction of social connections and relations. At the same time, the city is a socio-territorial entity with borders that allow us to fix the characteristics of people's lifestyle and the specifics of the functioning and development of its population. Despite the social heterogeneity of the population, the inhabitants of the city form a single territorial community, which in one way or another uses the space of the city to meet various needs and interests. The specificity of the citizens is not only that they are the main consumers of the territory, but also that they are subjects of its production, thereby forming the design of the urban environment and the image of the city as a whole.

It should be noted that throughout the history of urban forms of settlement, the main schemes of urban design were the result of cities economic growth. At the same time, today, in the era of globalization, the reverse procedure has taken place: urban design is consciously "used" as a mean of

cities economic development in a new competitive environment [3]. In this regard, the issue of the urban residents' role in the planning of the city and its design is updated.

2. Materials and methods

The concept of "urban design" [4] has been appeared in the 1950s and has been firmly established in the professional lexicon of architects, designers and city planners. This is due to a change in ideas about the surrounding space. The development of transport and infrastructure, new technologies and communications have become prerequisites for changing attitudes towards the urban environment and its structural elements. The modern development of ergonomics, a high level of mobility [5], multi-functionality and rationality of the modern world determine the industry for creating comfortable urban spaces (design spaces).

Modern society changes the concept of environmental comfort and living environment quality [6]. The urban environment should meet the diversity of the needs of the population and be functional, physically and psychologically comfortable. Hence, the changes in the object-spatial environment of the city towards its humanization are of great important.

Along with a high level of comfort and technical equipment, the urban space has an interactive character [7]. This can be defined as the ability of the urban environment to respond to the various groups' needs of citizens and to adapt to different situations. Accordingly, special attention should be paid to the demands of the population itself, i.e. citizens today are becoming active actors involved in the planning of urban space [8]. According to Brown and Wyckoff-Baird [9], as long as public goods are affected, public participation can clearly benefit the city policy. Bernzen and Johannessen [10] argue that citizens 'competence and experience can create better plans and services, and the democratic process usually helps create a sustainable environment.

City residents' value judge and representatives of various social groups and communities transmit ideas about all spheres of city activity as a territorial entity (economy, politics, culture, art, science, education, etc.). K. Lynch [11] writes about the importance of the value perception of the city image, believing that it is necessary to maintain the emotional state of the individual. The emergence and manifestation of a person's attachment to the city becomes the basis for the formation of the territorial identity of a city dweller [12]. This process occurs through the allocation of special symbolic places, endowed with certain meanings and forming the image of the city and its design [13]. These assessments, based on self-perception and personal experience, are formed in the process of interaction with both the subject environment and with various subjects included in the space of the city.

There are two main ways to form a city design: the path "from above" and the path "from below". In the first case, the conceptual foundation and basic directions for the implementation of basic ideas belong to the city administration, architects, city planners, and designers. This is, as a rule, a goal-oriented rational actions and interactions of the subjects, during which an "ideal" planning project is developed that meets modern requirements. In the second case, the townspeople become the subjects of the city design formation. Citizens as a social community critically interpret the proposed projects and can initiate their own innovations. During public discussions, in social networks, as well as through protest behavior, the urban community can express its own position and can affect management decisions regarding urban planning. At the same time, it is extremely important that public participation includes the appropriate interests range of different social groups [14].

At the same time, there are a number of drawbacks, among which the most significant are the following. Development of urban design with the participation of citizens requires a large investment of time and financial resources [15]. In addition, as a rule, citizens who are invited by the city administration, those who are easy to recruit, take part in the discussion [16]. Sanders notes another problem: when discussing design problems, the latent hidden implicit pain points of the city are not taken into account [17].

To solve these issues, for example, E- services can be used to hold public discussions in the Internet, where citizens can comment on city projects [18]. It is important to turn to the sensual perception of the proposed ideas and concepts of ordinary people in the city [19].

The main objectives of the study, conducted in 2017, were to analyze the citizens' opinions about the city of Yekaterinburg and to evaluate their role in the design of the urban environment. The authors have developed a questionnaire consisting of 20 questions. The quota sample consisted of 385 people living in the city for more than 5 years. Such characteristics as gender, age and place of residence are the base of the sample. 200 women and 185 men were surveyed. Over the ages, respondents were distributed as follows: 125 people under the age of 30 years, 135 people aged 30 to 50 years and 130 people aged 50 and older. The materials obtained were processed using the Vortex sociological and marketing information processing and analysis program.

In addition, 12 people were interviewed using the semi-formal interview method. The questionnaire consisted of 10 questions. We did transcripts of the interviews we received. The interview materials were summarized in accordance with the stated research objectives. We grouped into basic thematic fragments with the definition of a system of relations between the thematic blocks.

3. Results and discussions

Our survey has revealed that 89% of the respondents take a favorable view of the city. Citizens call Yekaterinburg as the third capital (54%) and as a developing city (47%). Only an insignificant part of the respondents considers the territory of their residence as a "gray" city (12%). 47% of the urban population identifies the Temple on the Blood as a basic visual characteristic of the urban environment.

As far as city design the respondents note that it is the city authorities "make" it (76%). The municipal administration is involved in the process of determining the image of the city and make a decision on its architectural and planning composition and infrastructure development. In other words, the most large-scale actions that directly or indirectly influence on the formation of the city image are in the competence of the authorities.

54% of the respondents believe that residents are also the subject of urban planning. The results of the interview have shown that citizens can influence the design decisions of city planners: "*I believe that by joint actions we - citizens - can influence on the design of the city. The authorities will come up with something to build or demolish, and I am sure we can influence on this decision*" (man, 35 years old). In this case, we can say that the participation of city residents as a social community in the formation of the urban environment design can be focused. It should be noted that in sociological science there is a tradition of defining a city through the existence of an urban community that was initiated by M. Weber [20]. The most important feature of the urban community is its conscious responsibility for the city, its prosperity and the right to participate in urban affairs, which leads to an activity in the process of forming the city design.

With such an approach, citizens should not be a fragmented inertial mass, but they should be a cohesive urban community that is focused on the improvement and prosperity of the territory. Such an idea seems somewhat utopian, since the situation in the large megalopolises is as follows: they represent a large number of communities that differ from each other in lifestyles, value orientations, social status and social activity, etc. At the same time, in the urban space, segregation of communities rather than integration into a single community of citizens takes place. Our research has revealed that 47% of the respondents believe that there is an active urban community in Yekaterinburg; meanwhile, only every fifth respondent identifies himself \ herself with it. Let us cite the opinion of the respondent which describes the current situation best of all: "I heard that there are some urban activists who are volunteers. But, I myself personally have never participated in such actions, although I don't mind ..." (woman, 29 years old).

Indeed, in Yekaterinburg, in recent years, the activity of public organizations and communities of urban activists has increased. They attempt to improve the space of the city in different ways. This process can be traced, for example, by the number of virtual communities in social networks that are

devoted to the city of Yekaterinburg. Thus, the analysis of groups / pages of the Russian-speaking social network "Vkontakte" allowed us to determine the most massive and representative groups of Yekaterinburg such as "Typical Yekaterinburg" (http://vk.com/te_ekb, 462112 subscribers), "Interesting Yekaterinburg" (http://vk.com/inburg, 236474 subscribers), "I Love Ekaterinburg" (http://vk.com/ekabyte66, 49959 participants), "It's my city. Ekaterinburg" (http://vk.com/itsmycityekb, 16135 subscribers). These and similar communities do not only highlight any urban events and incidents, but they also discuss the everyday problems of the citizens themselves: street cleaning, quality of road surface, work of municipal transport, etc. It should be noted that the pages devoted to the city are full of positive beautiful photos, i.e. citizens visualize urban space, thereby drawing attention to the design of the urban environment.

As for the communities in the social network, which include urban activists whose activities are aimed at promoting the territory and improving its characteristics, the number of participants, compared with the above groups, is not so great: "Inhabited City" (http://vk.com/archcity, 1554 subscribers), "Convenient city | Yekaterinburg" (http://vk.com/comfy_city, 5288 subscribers), "Yekaterinburg from the past" (http://vk.com/ekbizproshlogo, 1489 followers), etc. Along with this it is these kinds of citizens who are distinguished by the greatest activity and social responsibility for their territory. Thus, the members of the "Convenient City" group repeatedly wrote appeals to the city authorities, pointing to issues dealing with areas in the transport and pedestrian system of the city (pedestrian crossings, curbs, etc.).

The survey has fixed that 89% of the respondents consider the presence of parks, and green areas for walks and rest to be the most important criterion that makes the environment of the city comfortable. In addition to performing the ecological function, parks increase the artistic expressiveness of architectural ensembles and contribute to psycho-emotional unloading.

The survey results show that the largest proportion of respondents (89% of respondents) consider the presence of parks, green areas for walks and rest to be the most important criterion that makes the environment of the city comfortable. Performing an environmental function, parks also increase the artistic expressiveness of architectural ensembles, and contribute to psycho-emotional unloading. Respondents believe that parks and garden squares in the city perform the function of public places, in accordance with which they become, first of all, the space of communicative connections and interactions that stimulate the development of new social relations.

In general, it should be noted a number of important points concerning the formation and functioning of the community of citizens as an active subject of the formation of urban design. Firstly, city residents are interested in its development (78% of the respondents) and note the need to form an attractive image of Yekaterinburg (94% of the respondents). Secondly, citizens are aware of the possibility and importance of their participation in the life of the city. The majority of the respondents (79% of the respondents) believe that it is the residents of the city who can influence the positive changes in the city. Thirdly, the willingness of citizens to act in order to improve life in the city (71% of the respondents) is high. Fourthly, participants in groups / communities represented in social networks dedicated to the city should be recognized as a potential driving force in the process of planning and promoting the territory.

In this study, we have attempted to elucidate the role of citizens in city design, and their attitude towards this process. We believe that our findings are promising and should be validated using a larger sample.

Further investigation should be devoted to a comparative analysis of the teachers' and children's parents' attitude towards the barriers of inclusive education implementation in various Russians megalopolises.

4. Conclusions
Cities and features of its perception are always contextually determined, above all, by the circumstances of time and place, the social memory of citizens, the needs that are relevant to the community of local residents, the requirements that they place on urban space and their livelihoods,

and the course of municipal government and the city-forming by politics. The research has found that the perception of the city differs in different social groups of citizens. There is a lack of the city homogeneity.

We believe that the design of the city should be designed by administrative government in the process of interaction with the urban community and its activists. At the same time, it is important to convey the general vector of the strategy through the system of communication channels to each inhabitant in order to reduce the contradiction between the managers' image of the city being formed and its perception and assessment by the citizens. Feedback should blur round this and other contradictions.

References

[1]   Park R, Burgess E and McKenzie R 1967 *The City* (Chicago: The University of Chicago Press)
[2]   Antonova N, Grunt E and Merenkov A 2018 Large City Social and Spatial Segregation in Youth's Opinion *IOP Conf. Ser.: Mater. Sci. Eng.* **463** 032096 DOI: 10.1088/1757-899X/463/3/032096
[3]   Gospodini A 2002 European Cities in Competition and the New ' Uses ' of Urban Design *Journal of Urban Design* **7** 5973 DOI: 10.1080/135748002201292311
[4]   Lang J 2005 *Urban Design: A Typology of Procedures and Products* (Oxford: Architect. Press)
[5]   Urry J 2007 *Mobilities* (Cambridge: Polity Press)
[6]   Kwiatek-Sołtys A and Mainet H 2014 Quality of life and attractiveness of small towns: A comparison of France and Poland Quaestiones *Geographicae* **33** 103113. DOI: 10.2478/quageo-2014-0019
[7]   Moore K R and Elliott T J 2016 From participatory design to a listening infrastructure: A case of urban planning and participation *Journal of Business and Technical Communication* **30** 5984 DOI:10.1177/1050651915602294
[8]   Martinez M 2011 The citizen participation of urban movements in spatial planning: A comparison between Vigo and Porto *Int. J. of Urban and Regional Research* **35** 14771
[9]   Brown M and Wyckoff-Baird B 1992 *Designing integrated conservation and development projects* (Washington: Biodiversity Supp ort Program)
[10] Berntzen L and Johannessen M R 2016 *The role of citizen participation in municipal smart city projects: Lessons learned from Norway Smarter as the new urban agenda* eds Gil-Garcia, J Ramon, Pardo, A Theresa, Nam, Taewoo (Cham: Springer) pp 299–314
[11] Lynch K 1960 *The Image of the City* (Cambridge, MA, USA: MIT Press)
[12] Abramova S B, Antonova N L and Pimenova O I 2019 Attractiveness of a City as a Factor of Territorial Mobility in Student Estimates (on the Example of Ekaterinburg) *The Education and science journal* **21** 97123 DOI: 10.17853/1994-5639-2019-1-97-123
[13] Nora P 1984 *Les lieux de mémoire. La République, la Nation, les France* (Paris: Gallimard)
[14] Abers R 2000 *Inventing local democracy: Grassroots politics in Brazil* (Boulder: Lynne Rienner Publishers)
[15] Hughes J A, Randall D and Shapiro D 1992 From ethnographic record to system design *Computer Supported Cooperative Work* **1** 12341
[16] Bryson J M, Quick K S, Slotterback C S and Crosby B C 2013 Designing public participation processes *Public Administration Review* **73** 2334 DOI: 10.1111/j.1540-6210.2012.02678.x
[17] Sanders E B N 2002 From user-centered to participatory design approaches *Design and the social sciences: Making connections* ed J. Frascara (London: Taylor & Francis) pp 1–8
[18] Mueller J, Lu H, Chirkin A, Klein B and Schmitt G 2018 Citizen Design Science: A Strategy for Crowd-Creative Urban Design *Cities* **72** 1818 DOI: 10.1016/j.cities.2017.08.018
[19] Tunnard C and Pushkarev B 1963 *Man-Made America - Chaos or Control?* (New Haven: Yale University Press)
[20] Weber M 1986 *The City* (Chicago: Free Press)

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