Abstract—The article emphasizes the problems of social inequality, materialized in the objects of urban space. The design of mobility barriers for citizens with disabilities is considered in the new framework for comparing discourses of accessibility of the environment, universal design and an inclusive approach to environmental practices. Data from a sociological study of the urban citizenship of people with disabilities is presented, their right to their city has been considered in line with social knowledge and architectural practices. The article is based on classical sociological theories, data of independent examinations on the quality of urban space, and also on a review of specialized periodicals and reports prepared in the framework of urban forums. The results of the research emphasize the constructive start of inclusive design, its role in the reorganization of the urban order and in overcoming social discrimination and exclusion. The article is devoted to the sociological understanding of the relationship of architecture, social policy and disability issues.

Keywords—Urban citizenship, people with disabilities, the right to a city, accessibility, inclusive design

I. INTRODUCTION

New trends in the consideration of social problems of people with disabilities are more fully revealed in the field of sociology of the city and sociology of architecture, also in the logic of inclusive design as a movement for the quality of urban environment, embodying the declared rights of man and citizen. Dialogue and alliance of various disciplines and scientific schools can not only strengthen the understanding of the modern city model and the needs of its residents, but also develop platforms that can meet the needs of various citizens' strata by justifying a theoretical model of inclusion and specific tools for expanding disabled people’s right to the city. In 1978 V. Glazychev declared the importance of a sociological view of architecture and indicated that the sociology of architecture was primarily interested in all forms of dissatisfaction arising in the contact of people with architecture [Glazychev, 1978]. However, nowadays the dominant algorithms for constructing urban areas do not sufficiently take into account the interests of an individual with his or her features and individuality, and this problem is most acute in connection with disability and limited mobility of a person. Very diverse projects are presented in the domestic field of research of the city. In turn, social problems of disability have seriously been studied, but the studies of urban citizenship and the practices of social exclusion of people with disabilities in the context of urbanism are not yet well represented. The area of assessment of the urban citizenship of people with disabilities is experiencing a new round of interest in connection with the perceived state focus on creating an accessible environment today. At the same time, the logic of inclusive design should be distinguished from stereotypes of an accessible environment that have already been formed. The analysis of the concept of inclusive design, the principles of which are still poorly articulated in Russian scientific and socio-political discourse, can help explain the fundamental interrelationships of architecture, social policy and disability issues.

II. PURPOSE AND QUESTIONS OF RESEARCH

The central concepts of this article are the urban environment and disability. Within the framework of the designated topics the urban environment is of interest in terms of its quality and inclusive properties. The main criterion of the quality of urban environment is the attitude of citizens to their city and the urban citizenship of various groups of the population. D. Harvey was the first to speak about urban citizenship, meaning by this “the rights of immigrants, temporary residents and outsiders to participate in local politics, which now—more than ever before—depends on movement” [Harvey, 2008: 87]. The term “spatial justice” is used in the works of E. Soja, although the beginnings of the discourse of justice in urban space were laid by A. Lefevre [Lefevre, 2010] in the concept of the right to the city, as well as D. Harvey, who studied aspects of social justice in urbanism.

Although the definition of disability today seeks to model established in the UN Convention on the Rights of Persons with Disabilities, where the emphasis is put on the interaction...
of people with barriers of urban space, which limit both physical and social mobility of a person, still people with disabilities sometimes turn out to be “outsiders” in a sense their social world is largely driven by mobility opportunities. Transformations of the socio-political structure, new trends in the development strategies of Russian cities necessitate theoretical reflection and empirical research on the problems of disability in terms of spatial justice and the right to the city (the right to be active users of the benefits provided by a city). In the logic of spatial justice we take about the satisfaction of citizens with the work of various institutions, urban infrastructure facilities, public spaces, a range of leisure facilities and other opportunities to improve the quality of life, realized through urban infrastructure, also about the possibilities of certain citizens to be involved in urban communities and to realize themselves in employment and education systems.

The availability of urban resources and infrastructure not only determines the opportunities for social mobility of people with disabilities, but also helps reduce social distances and overcome discriminatory attitudes in society. Houses, squares, urban objects directly affect the thoughts and ideas of citizens about each other, they form or eliminate stereotypes. According to E. Soja [Soja, 2010: 280], the discourse of spatial justice includes the whole range of events taking place in the city, aimed at transforming the city and public order to achieve equal citizenship and a more just stratification order.

The analysis of quality of urban space substantially complements the semiotic interpretation of architecture, which makes it possible to recognize the latent social and cultural codes of society that produce certain types of social relations. The semiotic interpretation of architecture proposed by U. Eco allows to expand the horizons of perception of architectural structures as performing exclusively functional tasks and also to see the architecture in a cognitive and communicative perspective. The architecture constructs the behavior of a person, forms his or her ideas and affects the subjective well-being of the citizens. It can both consolidate the existing order, fixing the established forms of social stratification, and construct new codes of human behavior in the logic of social solidarity and inclusion. Upon closer inspection, the primary and secondary functions of urban architectonics (denotation and connotation) allow to capture the peculiarities of the processes of formation of social relations. For example, the primary function of city facilities, which take into account the peculiarities of a person, constructs a series of secondary ones, informing all citizens of the city about people with various disabilities, restrictions and health characteristics, thereby consolidating the culture of acceptance, anti-discrimination behavior and respect. According to P. Bourdieu, the social space “seeks to transform more or less strictly into the physical space through the removal or deportation of some people” [Bourdieu, 2007: 16]. The model of a disciplinary society gives the architecture a function of control and supervision. M. Foucault illustrates his idea in detail by considering the spatial organization of the prison, barracks, factories, schools. The city’s architecture is represented by the author as a tool for structured functional control, exercising power and controlling human behavior: “stones began to make people obedient and knowledgeable” [Foucault, 1999: 95]. In many ways, with the help of architecture, social inequality and disciplinary order are being sealed. In her works, T.M. Dridze noted that the city is created by the activities of people, their life orientations and daily needs, mentality, culture, biographies [Dridze, 1999]. Elements of the urban environment are humane if they provide a conducive environment for communication, and, vice versa, if citizens are distancing from each other, if people do not have the opportunity to be participants of urban processes because of the closeness and inaccessibility of the urban infrastructure and cannot use public spaces and infrastructure safely and comfortably, then this reveals certain problems of the urban environment and the fact that the city is not prosperous for the life of people.

The degree of attractiveness of the city is directly related to the factor of population mobility. Domestic experience in the formation of an accessible environment needs reflection on the achievements and distortions of the implemented plan. In this regard, the relevance of consideration of urban citizenship and mobility of people with disabilities is increasing; social effects of the implemented social policy of accessibility should be assessed, having studied the opinions and assessments of people with disabilities.

### III. Research Methods

Based on the results of our research, the authors will try to get a picture of the city in the context of the situation of people with disabilities. Is the city open for people with disabilities; to what extent are the interests of people with different physical characteristics taken into account in an urbanized area? The survey method conducted among the low-mobile groups of the population of three Russian cities (Nizhny Novgorod, Saratov, Kazan) obtained data on the degree of accessibility of urban infrastructure for people with disabilities and identified ideas about progressive or destructive changes. A total of 616 people were interviewed (approximately proportionally, that is, in each city there were 200 people interviewed), the major part of the data was collected in 2013-2016, in 2018 the final processing and comparison of data with the results of other domestic researchers was carried out. Respondents who took part in the survey have a disability, but are able to move independently, and among the main reasons that impede their mobility is a complex of diseases (25%), a violation of the musculoskeletal system (19.32%), age-related changes (19,16 %). Kazan and Saratov were selected for the study as cities that were among the first pilot regions to test the formation of an accessible environment at the level of constituent entities of the Russian Federation, Nizhny Novgorod is presented in a sample to compare the situation with accessibility between the participating cities and non-participants of the pilot project. At the same time, the choice of metropolises for the study was made on the basis of the classification of large urbanized zones and their administrative marking as: the capital; federal district centers; cities with a population of more than a million; major cities with a population of less than a million. Kazan in our sample is the capital of the Republic of Tatarstan (a city with a population of over a million), Nizhny Novgorod is the administrative center of the Volga Federal District (a population of over a million), Saratov is a large city with a...
population of slightly less than a million. A secondary, but important criterion for the selection of pilot regions was the experience of effective cooperation with a number of regional public organizations. To get a clear picture of the city in human dimension, it is important to identify the conditions and limitations that the city imposes on a person with limited mobility, which of his or her needs the city is able to satisfy, and which needs of these people are completely frustrated.

IV. RESEARCH RESULTS

Answers to a cluster of questions that figured out how much the interests of people with disabilities were taken into account in the city’s architecture showed that negative answers in Saratov were 6 times higher than positive ones, in Kazan - 1.5 times, in Nizhny Novgorod, the excess of negative answers over positive ones was insignificant. Respondents in all cities, regardless of the category and nature of disability, age and material status, rarely assessed the degree of city comfort for people with disabilities above three points; therefore, the accessibility situation did not significantly improve against the background of the state program “Accessible Environment”. Low grades on the city’s accessibility scale always correlated with statements about intolerance and exclusion in the field of social communications, which confirms the view that the city filled with architectural barriers is a factor of reproduction and deepening of social deprivation constituted within and with the help of metropolis space. A positive aspect of transformations in the field of urban citizenship of persons with disabilities is the fact itself of implementation of the federal target program “Accessible Environment”, where the logic can be traced conceptually that disability is the result of a destructive human interaction with the external environment due to its barriers. Although insignificantly, in our survey the proportion of respondents who believed that over the past 20 years cities had become more convenient for life prevailed, but the proportion of opinions that nothing has changed is still significant.

<table>
<thead>
<tr>
<th>HOW MUCH MORE FAVORABLE TO LIFE DID YOUR CITY BECOME IN THE LAST 20 YEARS?</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>It has become much better and more convenient</td>
<td>6,5</td>
</tr>
<tr>
<td>It has gotten a little better</td>
<td>37,3</td>
</tr>
<tr>
<td>Almost nothing has changed</td>
<td>27,3</td>
</tr>
<tr>
<td>It has become worse</td>
<td>11,2</td>
</tr>
<tr>
<td>It has become much worse than before</td>
<td>5</td>
</tr>
<tr>
<td>Difficult to answer</td>
<td>12,7</td>
</tr>
</tbody>
</table>

Among those who are inclined to positively assess the changes are mostly people from Nizhny Novgorod, as to those who chose the option of deterioration – citizens of Saratov. The diagram shows that the statements of citizens of Saratov stand out noticeably against the background of assessments of residents of two other cities. Residents of Saratov say that the road and transport infrastructure has deteriorated significantly, especially in recent years. More than half of Saratov people with disabilities (64.4%) consider the security situation in the city to be unsatisfactory. Thus, it is premature to conclude that the implementation of targeted measures to create accessibility has proven effective. Ramps and point accessibility appeared in the cities, but in general this did not affect the degree of comfort of the environment.

For a more detailed analysis, a segment of positive responses on the degree of accessibility of institutions was reviewed. The statement “absolutely accessible” was analyzed, where organizations of various profiles received different marks in the numbers presented in the diagram.

It turned out that the leading position was occupied by a noticeable margin with the shopping centers, the construction of which had developed on a large scale in Russian metropolises. Modern shopping centers, as a rule, are built with a wide range of accessibility initially provided for, including compliance with the international standards of universal design that are necessary and required by construction rules. Social services and religious institutions are relatively accessible; state, medical and educational institutions have become outsiders. Reflecting on the possibilities of their urban citizenship and greater independence in using the infrastructure of the city, most often respondents from three cities spoke of the need to acquire modern rehabilitation facilities (including personal transport), the importance of improving public transport and the need for a qualitative transformation of urban environment, streets and public spaces. Almost all respondents connect an improvement in their position and quality of life with the disappearance of urban infrastructure barriers that impede mobility: 45.2% of respondents answered that they would become more mobile and move around the city more often, 30% would find for themselves new areas of activity and feel greater autonomy. The data we obtained do not contradict the results of All-Russian studies, which were presented in the framework of the IV Moscow Urban Forum. The study “The Struggle for the Citizen: Human Potential and the Urban Environment”, performed by the Graduate School of Urbanism, contains an assessment of the human potential of Russian cities [The Struggle for the Citizen…, 2015].

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