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**PRE-PROJECT STUDIES IN THE REGENERATION
OF THE URBAN ENVIRONMENT OF MICRODISTRICTS
IN THE WESTERN PART OF ALMATY**

Abstract. *The experience of pre-project analysis for the regeneration of the architectural and planning environment of large-panel buildings in the western part of Almaty in order to elicit problems to identify the most effective methods of improving the quality of the residential environment is discussed in this article. The results of a sociological survey of the population are presented.*

Keywords: *pre-project analysis, large-panel construction, sociological research, regeneration of the residential environment.*

Materials and methods

The following methods were used in the study: full-scale examination, analysis of archival and project sources, sociological research (questionnaire survey of the population and personal conversations with certain categories and groups of the population), comparative analysis, graphoanalytic method.

Introduction

In each city, depending on the conditions existing in residential areas may prevail one or more tasks that determine the nature of regeneration [1]. Large-panel buildings of the 1960s make up a significant part of the housing stock in Almaty [2, 3, 4]. During the period of construction of the first residential buildings of mass series, the sociological needs of different strata of society were not taken into account due to its relative homogeneity. Everything was done according to a standardized pattern. The most important task of building a new housing stock was to satisfy the need for housing [5, 6, 7].

At present time, the once homogeneous composition of the city's population has undergone some changes associated with the stratification of society in the new economic conditions. Related to this are the needs of different segments of the popu-

lation, which must be satisfied in the process of regeneration of the urban environment. The results of the sociological survey presented in this article make it possible to identify the functional, aesthetic, environmental and other needs of residents living in the numbered (No. 1-12) microdistricts of Almaty.

The results of survey showed that 47 out of 100% of respondents are not satisfied with the current state of their houses (Fig. 1a). To a greater extent, the reasons for which the quality of housing is not satisfied are, in descending order of priority: small area of rooms (24.3%), outdated engineering utilities (22.1%), physical deterioration of the building due to accumulated underrepair (20%), inconvenient layout (15.6%), lack of elevators (13.6%), and others (lack of a balcony, no intercom, shared bathroom, etc. – 4.4%) (Fig. 1b).

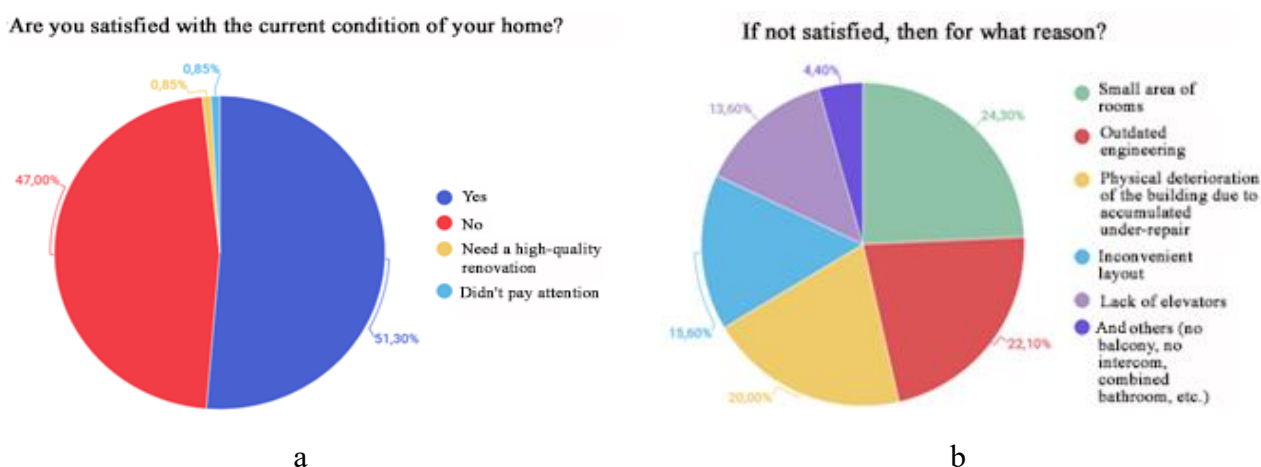
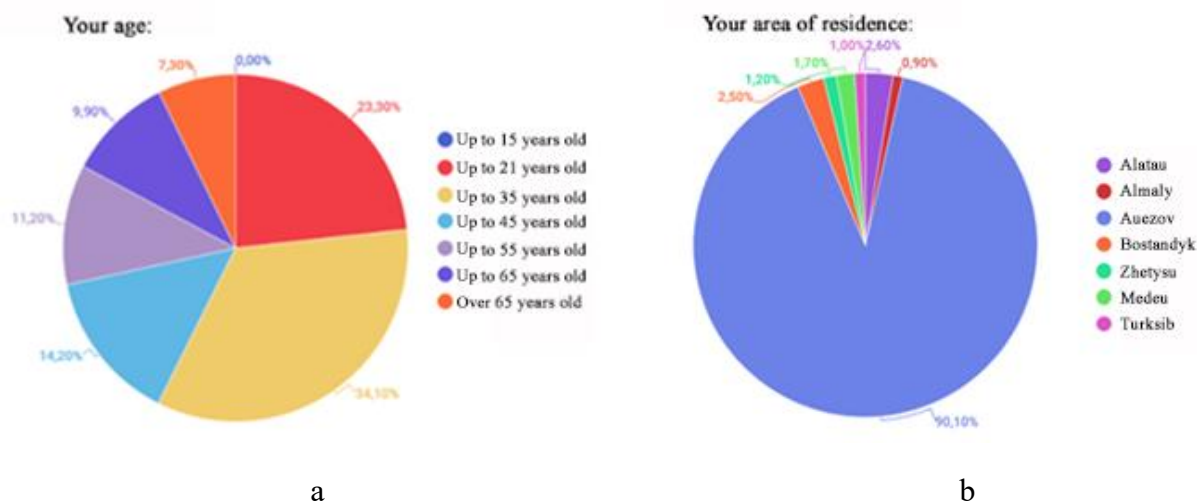
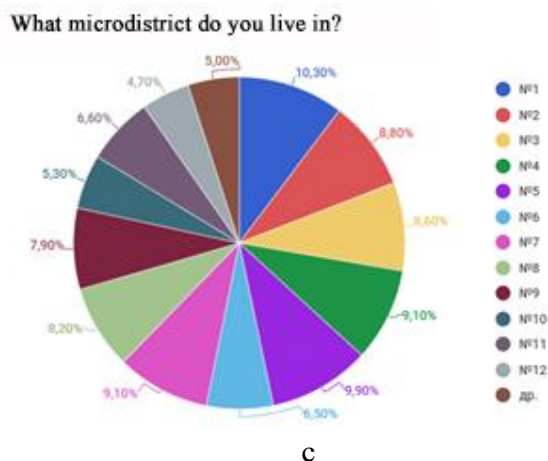


Figure 1 – The result of a sociological survey to identify shortcomings in housing [author's material].

The age composition of respondents is represented by the following categories: under 21 – 23.3%; up to 35 years – 34.1%; up to 45 years – 14.2%; up to 55 years – 11.2%; up to 65 years – 9.9%; older than 65 – 7.3% (Fig. 2 a). Most of the interviewed respondents live in this territory and are represented in percentage terms by relatively equal segments (Fig. 2c). The proportion of respondents living in other places is minimal (Fig. 2b).



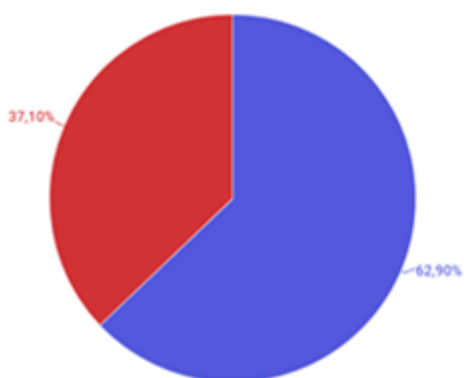


c

Figure 2 – Characteristics of the respondents by age and area of residence [author's material].

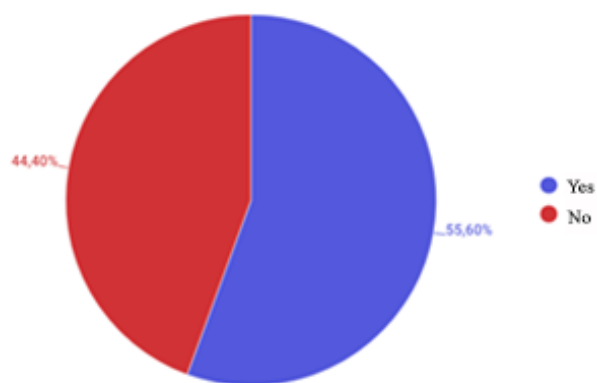
There is an acute shortage of parking spaces in the territory, which is confirmed by the answers of 55.6% of the respondents (Fig. 3 a, b). At least 54.7% of those surveyed need the number of parking spaces per family – 1 space; 11.2% of respondents – 2 places (Fig. 3c).

Is there an area for parking cars on the territory of your yard?



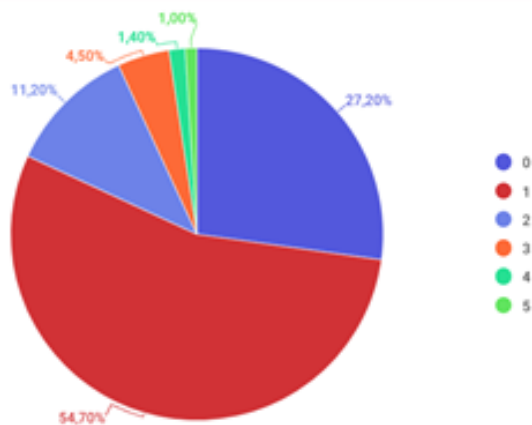
a

Do you need parking?



b

How many parking spaces does your family need?



c

Figure 3 – The need of the population for parking spaces [author's material].

It should be noted that a significant percentage of the territory of microdistricts is undeveloped and currently does not have a specific functional purpose, is inefficiently used [3, 4, 5]. 46.1% of residents are dissatisfied with the current state of the yard (Fig. 4 a, b).

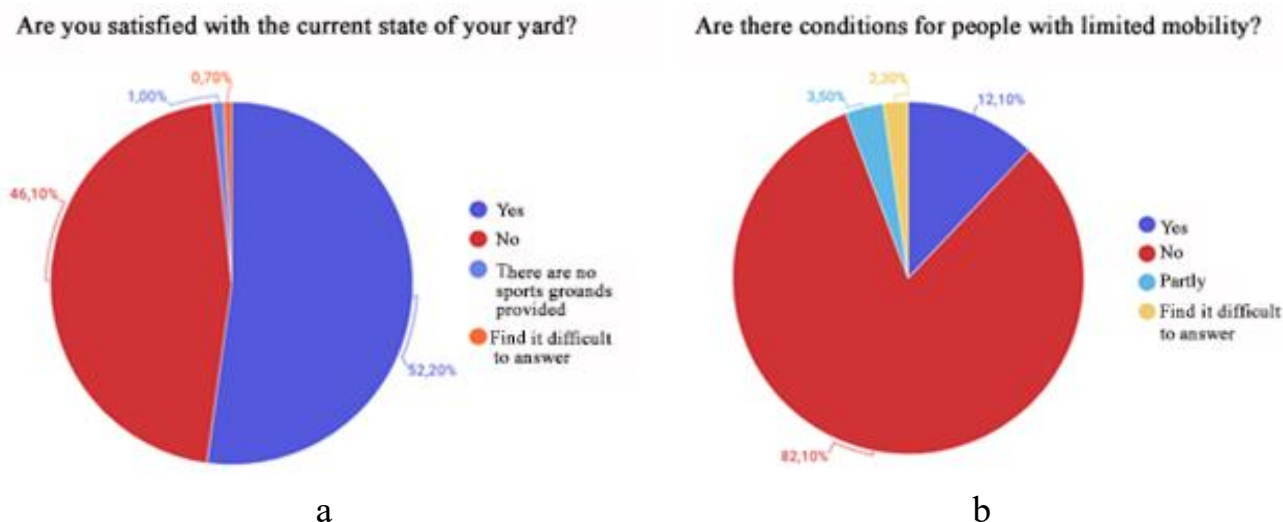


Figure 4 – The result of a sociological survey to identify the shortcomings of the yard space [author's material].

87.5% of respondents get to the bus stop in less than 15 minutes, 12.1% spend from 15 to 30 minutes to get to the bus stop. This determines the availability of urban transport infrastructure (Figure 5 a). Time spent to get to the place of work in descending order: 20.7% – from 45 to 60 minutes, 28.4% – from 30 to 45 minutes, 25% – from 15 to 30 minutes (Fig. 5 b).

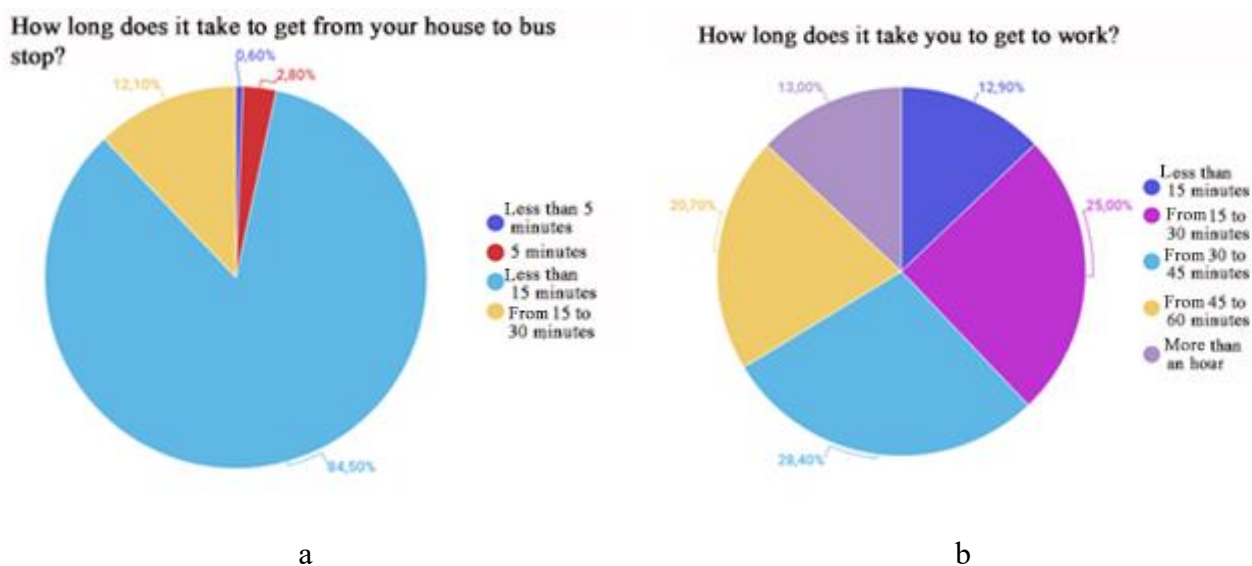


Figure 5 – Accessibility of the population to places of application of labor [author's material].

Conclusions

A sociological survey of the population made it possible to identify the following architectural and planning problems of the residential environment of microdistricts in the western part of Almaty.

1. Residential buildings are characterized by the main shortcomings, among which is the physical deterioration of residential buildings due to accumulated underrepair.
2. Increased obsolescence of residential buildings – small areas of living rooms (9-12 m²) and auxiliary premises (kitchen – 6 m², bathroom, entrance hall); inconvenient layout of apartments – walk-through rooms, limited functional areas, combination bathroom; lack of elevators, balconies (in some apartments), strollers, modern engineering equipment, etc.
3. The architectural and artistic image of residential buildings is monotonous and sameness; there is a lack of use of harmonious color solutions, the predominance of homogeneous and aggressive visual fields.
4. Lack of functional zones of yard spaces and their interconnections, monotonous elements of yard improvement.
5. Lack of compositional focuses in the architectural and spatial organization of neighborhoods, monotony of planning solutions.
6. Lack of parking spaces for personal vehicles, organization of spontaneous parking lots.
7. Uncomfortable living conditions on the 1st floor: lack of visual comfort and communication with the site to meet the needs of residents in its landscape organization.
8. Lack of work places, the bulk of people go to work outside the territory, spending from 45 to 60 minutes to get to working place.
9. The need for public functions.

The results of the above sociological survey of the population made it possible to identify the architectural and planning problems of residential development in microdistricts, which in the future will serve as the basis for the development of effective methods for regenerating the living environment of the territories under consideration.

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АЛМАТЫ ҚАЛАСЫНЫҢ БАТЫС БӨЛІГІНДЕГІ ШАҒЫН АУДАНДАРДЫҢ ҚАЛАЛЫҚ ОРТАСЫН РЕГЕНЕРАЦИЯ КЕЗІНДЕГІ ЖОБАЛАУ АЛДЫНДАҒЫ ЗЕРТТЕУЛЕР

Андатпа. Бұл мақалада тұрғын үй сапасын жақсартудың ең тиімді әдістерін белгілеу үшін проблемаларды анықтау мақсатында Алматы қаласының батыс бөлігіндегі ірі панельді құрылыстың сәулеттік-жоспарлау ортасын қалпына келтіру үшін жобалау алдындағы талдау тәжірибесі қарастырылады. Халыққа жүргізілген әлеуметтік сауалнаманың нәтижелері келтірілген.

Түйін сөздер: жоба алдындағы талдау, ірі панельді құрылыс, әлеуметтанулық зерттеулер, тұрғын үй ортасын қалпына келтіру.

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ПРЕДПРОЕКТНЫЕ ИССЛЕДОВАНИЯ ПРИ РЕГЕНЕРАЦИИ ГОРОДСКОЙ СРЕДЫ МИКРОРАЙОНОВ ЗАПАДНОЙ ЧАСТИ Г. АЛМАТЫ

Аннотация. В данной статье рассматривается опыт предпроектного анализа для регенерации архитектурно-планировочной среды крупнопанельной застройки западной части г. Алматы с целью выявить проблемы для того, чтобы обозначить наиболее эффективные методы улучшения качества жилой среды. Приведены результаты социологического опроса населения.

Ключевые слова: предпроектный анализ, крупнопанельная застройка, социологические исследования, регенерация жилой среды.