

Morphogenesis of elementary residential planning units

Kukina I.V., Fedchenko I.G
Siberian Federal University, Russian Federation, Krasnoyarsk, Svobodny 79
E-mail: ikukina@inbox.ru, ifedchenk@inbox.ru

Abstract: *The article reveals the results of the research of morphological development of the elementary residential planning units (micro district, neighborhood, community) based on changes of land use and plan analysis. Morphological processes of elementary residential planning units' transformation and creation of new morphotypes accompany the development of modern cities. The article presents the newest versions of the elementary residential planning units based on the symbiosis of their original concepts*

Key Words: *morphogenesis, residential planning units, market colonization, adaptive redevelopment*

Text (max 4000 words)

Introduction

Laws of the settlements historical development lead to reassessment of the content and change the morphological structure of the housing areas. The search for rational organization of cities in the early twentieth century led to the consolidation of the historic quarters and formation of theoretical concepts of residential urban planning units as the smallest indivisible structural elements of urban planning. Thus, by the 1970s the global experiment of planned functionalist urban development on the principles of elementary residential planning units gained momentum. These units gradually become: neighborhood - in the USA, micro district- in the USSR, and community - in Europe (Fig.1).

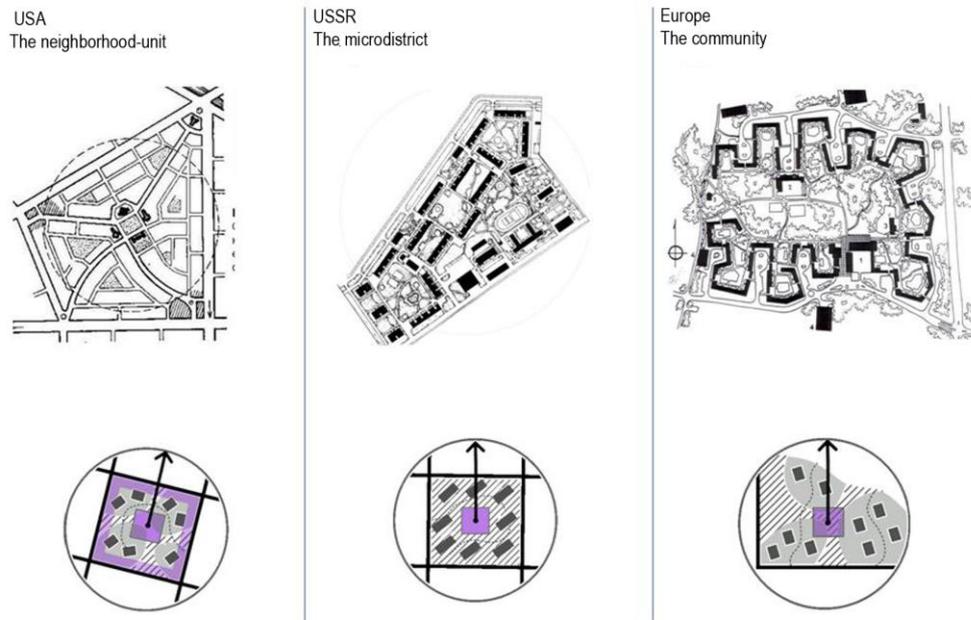


Figure 1. Image caption

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Methodology

This study is aimed at finding the general laws of morphological transformation of the structure of residential planning units’.

The study is based on the following methodology:

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Measurement and analysis

Consistent consideration of elementary residential planning units' concepts formation allows to identify common morphological features and objects of scientific criticism. To understand the morphological transformation of residential planning units emerged by the early 20th century, we should briefly overview the historical basis for each of the residential planning units' concepts.

Clarence Perry originally outlined the main provisions of the US Neighborhood in his work “The neighborhood unit” in 1929 and in the neighborhood project “Forest Hill Gardens” in New York in 1910. According to the ideas of Perry, neighborhood community centers include a primary education school and a church. Shopping outlets and public transport stops were situated on the borders of the planning unit (Lawhon, 2009).

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Conclusion

Thus, based on our analysis of the conceptual panning models evolution, as well as the analysis of the transformations of elementary residential planning units we can state the viability of their initial theories and assume the appearance of their newest forms in urban planning practice. Combination of the concepts of residential units planning has created the following

morphotypes: “microdistrict-quarter”, “microdistrict-neighborhood”, “microdistrict-community”; redistribution of the functions concentration from the periphery to the center led to the development of a centripetal type of residential planning unit – “transport-oriented”; development of applied aspects of the humanistic views led to "community of communities."
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