Moscow Renovation

Analysis of the pilot sites of housing stock renovation

Back in 2017, the Committee for Architecture and Urban Planning of Moscow launched the competition for pilot sites of housing stock renovation. The central idea of the contest was to provide a brand new architectural and urban planning concept for each selected residential quarter ensuring the residents’ well-being and preserving the existing lifestyles.

Habidatum participated in three consortiums – with Zaha Hadid Architects, MLA+ and Meganom – in order to support architects’ ideas of area profiling, creating new centers in the peripheral neighborhoods, as well as perform local identity studies of the renovation areas. Our part was not only to analyze the status quo but also to predict which commercial functions and services would be demanded in the new construction through our unique methodology.

As all the sites are situated in different districts with complex characteristics, and architects’ have distinct philosophies – therefore the approaches and proposed concepts of redevelopment of each of the sites vary. Working on the project, we adjusted the data analysis part focusing on each area’s potential for growth and evolution.

The renovation districts were examined not only inside their boundaries but also considering the surroundings – the existing pedestrian connections, local businesses, activity hotspots and everyday practices of its residents. To understand the current situation and to suggest the best places for the functions and facilities in the new development, we looked at people’s mobility patterns, popular recreational areas (based on social media data and BigData VimpelCom), transport accessibility and commercial diversity within the interest zone (based on open geodata).

**Kuzminki site** – in cooperation with Zaha Hadid Architects, TPO Pride, ARTEZA, Transsolar, Tyrens, KPMG, KROST

Located by the highway, which is the only enhancing area’s connection with the city center, Kuzminki is a deeply peripheral residential neighborhood. The site is practically divided into 2 segments by the metro station where most of the activity is concentrated: top landmarks are the square of Glory with the fountain, the nearby restaurants, and the Moscow Provincial Theatre. While the public square has the utmost diversity of products and services, the geographical centers of the western and eastern zones abound with social objects but are absolutely lifeless in the commercial component. Likewise, what is lacking is any established image of the area – the places that residents could mentally connect themselves to.
According to the “Archaeology of the Periphery” research of 2013\(^1\), \(\frac{3}{4}\) of Muscovites do not travel to the city center during the day. Despite the fact that the study is practically 5-year old now, this pattern still exists – based on aggregated cell phone data analysis, 50+ % of the area residents work within 30 min pedestrian accessibility, 80% tend to spend evenings in the area and 70% prefer not to leave during the weekend. This “insularity”, along with a total lack of recreational facilities for residents creates the need for local centers that should eliminate functional imbalances, and consolidate the local community.

Therefore, the renovation project was a chance to create a brand new centrality on the periphery and to endow it with new meanings, new form, and functions. Building new centralities and functions in such a big district is valuable not only for locals but also for residents of the neighboring districts who experience the lack of infrastructure.

Priority zones for commercial infrastructure allocation

The creation of this kind of high-level centrality is an opportunity for Kuzminki to become an important part of Moscow agglomeration – a new center managing all the weakly structured eastern peripheral areas of the capital.

**Golovinsky site** – in cooperation with **Project Meganom**, Genplan Institute of Moscow, Dvorulitsa

Working with Golovinsky district, we centered around the basic concept that Moscow semi-peripheral micro-districts between the gentrified center and booming suburbs demanded the need for a new strategy for their development.
A yardstreet as a new form of an urban space

This territory has only 6% of roads, while there are a lot of green spaces, huge residential quarters but very few public functions and services. To unleash the area’s potential of open, transparent and accessible space the architects proposed a strategy of a Superpark, with the emergence of the new type of urban public space, a "Yardstreet". It is a pedestrian street that appears within the boundaries of the existing street lot lines. With its complex spatial organization and a variety of social functions, the yardstreet makes the scattered block more compact, uniting its disparate parts. The yardstreet is both transit and place; architecture and landscape; a yard and a street. Such planning transformation dramatically increases the connectivity and accessibility of urban spaces, unlocking opportunities for the development of a new urban economy.

To propose an appropriate blend of functions for each of the yardstreet blocks, we used data on the location and distribution of functions and services for the studied land plot. Based on the in-house built model, we defined local deficiencies, which resulted in the number of commercial functions required by each block – a map of the area’s perspective functional framework. The adjacency of the highly deficient block to the street with a high value of the connectivity index marks the most promising places for the consolidation of commercial functions within the renovation zone. These are the key functional units that form the structure of the territory.
Area’s perspective functional framework. The darker the color, the higher is deficit

The final set of functions is determined, however, not by local functions, but by the need to define the district’s profile and ensure it is adequate to both existing urban development projects and global trends that will determine the growth of the Moscow metropolitan area in the near future.

**Khoroshevo-Mnevniki site** – in cooperation with MLA+, Buromoscow, Tridika, Mobility in Chain, Felixx Landscape Architects & Planners

In Khoroshevo-Mnevniki, the consortium team aimed not to provide a project for a specific site but to demonstrate an approach, a vision for the development of the huge periphery of Russian cities into complex urban areas with an identity, clear structure of the private and public spaces, and with the potential of self-development.
The project's goal was to create a new sub-center in Moscow and to bind blocks of residential development split up by highways. It created conditions to form new local communities and balanced the distribution of various types of spaces. Data analysis focused on residents' mobility patterns (defined through cell phone data), level of neighborhood satisfaction (positive and negative connotations in social networks data), and accessibility and commercial diversity for overall area analysis.

Property management as an investment portfolio. A new ownership culture – residents are beneficiaries and understand the value of not only their properties but also the joint territory

However, one of the main principles and ambition of the analysis was to ensure the positive economic effects of the new construction, to develop a special land-survey scheme and a corresponding land management model based on risk distribution for property owners. The proposed planning solution aimed to create a new structured environment, adequate to the principles of market competition and allowing to preserve functional diversity by establishing spaces of various types, with the different functional profile. These profiles should depend on the position on important streets – commerce facing the busy street will be filled with cafes and groceries while social services
demanded mostly by locals are to be situated in the quiet yards, being not competitive or money generating.

The differentiation of spaces’ affordability based on distance and street transit levels

To conclude

Urban areas today are not monofunctional entities, but generators of economic and social activity that should be included in the complex everyday life of the city. The new morphology filled with new meanings proposed by the consortiums’ teams, created an opportunity to “launch” a fully-featured economic environment, a space to fulfill the opportunities and the needs of local communities. Let us see how the renovation projects will be implemented, hopefully with the best ideas ahead.