Historical traditions of Moscow urban planning in the development of low-rise buildings

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Abstract. At present, it is necessary to preserve the scale of the existing urban environment, accounting for the accumulated urban planning experience and existing historical traditions. This will enable to find flexible urban planning solutions providing modern infrastructure for low-rise development in historically formed areas of the city and territories with special status. By the middle of the XIX century, Moscow residential development had represented two morphotypes: old low-rise sparse and low-rise perimeter, a consequence of the peculiarities of Muscovite life. The third morphotype, formed under the influence of the first two, was represented by individual architectural projects realized in the 1940s 1950s. Today, the concept of the private urban house with a homestead plot is still relevant. Townhouse is a form of urban dwelling with a small backyard. This form is a flexible entity combining the qualities of an urban house integrated into the urban system and a low-rise structure. Low-rise development retains an established historic scale whereas the historic fabric of the city remains unified and harmonious. Scale with historical architecture enables to integrate townhouses in the historically established areas of the city, without destroying formed city fabric. Townhouse fits into the natural landscape more harmoniously, continuing the tradition of the city and developing surrounded by gardens and parks.

Key words: manorial construction, townhouse, urban development, urban planning traditions.

1 Introduction

Nowadays, within the framework of solving urban planning problems satisfying the modern living standards, there is a need to preserve the scale of the existing urban environment, accounting for the accumulated urban planning experience and existing historical traditions.

The aim of this paper is to study the possibility of preserving urban planning traditions and unique socio-cultural climate of Moscow, which is the foundation of sustainable development of the city in social, cultural and architectural aspects. The preservation of Moscow's urban cultural heritage is currently dealt with by the specialized organizations such as the Department of Cultural Heritage of the City of Moscow, responsible for regulating urban planning and controlling cultural heritage, among other things. Within the framework of the study and preservation of urban planning traditions of Moscow, the author of the paper defended his dissertation research "Moscow town mansion (2nd half of the XVIII - 1st half of the XIXth centuries). Stages of development and historical and
cultural significance". Regularly held construction forums, such as "Russian House of the Future, a long-term strategy for mass housing construction in Russia", consider forms of housing designed with due account to the historical traditions of the region and accumulated urban planning experience, among other things. The Society for the Study of the Russian Town Mansion, "OIRU", which has been publishing the collection "The Russian Manor" since 1994, is dedicated to the study and preservation of the traditional town-forming form of Moscow: the Moscow town manor. It publishes materials highlighting the cultural significance of the Moscow urban town manor at different stages of the urban environment development.

2 Materials and Methods.

When considering the prospect of urban environment development, with due account to the preservation of basic socio-cultural and architectural traditions, it is necessary to consider the optimal social conditions, including socially significant infrastructure, scale, the presence of recreational areas, population density, which contributes to the formation of a favorable socio-cultural climate satisfying domestic psychological and importantly aesthetic needs.

While solving the problem of development of urban areas satisfying the modern demands of life and at the same time preserving the scale of the urban environment, it is necessary to take into account the accumulated urban planning experience, as well as historical traditions, enabling to promote the development of both historically established urban areas and areas where low-rise development is preferable [1].

3 Results

The development of the modern residential segment of urban development is multidirectional, associated with the solution of infrastructure problems, and mainly develops in the direction of construction of large-scale residential complexes or low-rise residential settlements. The development of each of these areas is linked to issues of property-related social character and the priorities for a particular form of housing. At the same time, the appeal to historical traditions based on the experience of urban planning principles of estate development enables to find flexible forms of solving urban planning problems, combining the possibilities of providing modern infrastructure for apartment complexes within the framework of low-rise development.

The urban environment, being a constantly evolving organism, is constantly adapting to new challenges in the socio-economic sphere. However, it is necessary to be mindful of its cultural and educational role. Being an object-spatial environment of an urban resident, it forms its social and psychological climate. [2,3] In many respects, the architectural and spatial environment is far from being only the result of architectural and construction activity. To a certain extent it affects the social and cultural climate of town citizens, which is facilitated not only by the psychologically more comfortable scale of the urban environment, but also by the system of architectural and spatial restrictions. Such constraints may have the character of traditional, historically formed architectural elements and techniques, being a reflection and development of traditional architecture. [4] At the same time, the endless modern monotonous new residential estates overwhelm people with their uniformity and scale compared to the comfortably perceived size and architectural diversity of the urban development of old Moscow. In fact, the planning of the development of the city outskirts should be formed with due account to those architectural and planning centers and accents that would allow the resident to fit in a psychologically humane organic environment. [5]
In Moscow, by the end of the 20th century, two main morphotypes had formed within the development of the mansion form. Old Moscow low-rise sparse, estate form can be attributed to the first morphotype. It consists of detached low-rise buildings designated for domestic and economic purposes, where the main house is located at some distance from the "red" line of the street, separated from the street by a front yard, in fact a green recreational area with a hedge along the street line. [6-9] Such a household is mostly symmetrical on the facade on the street side, and territorially has a clear division into front and household parts. The formation of this type of urban estate belongs to the middle of the XVIII - beginning of the XIX century and this type of estate made an invaluable contribution to the formation of the urban environment throughout the XIX century. [10] The second type of low-rise perimetral was formed in the second half of the XIX century and is a complex of low-rise buildings forming a common facade along the line of the street. Typically, within this morphotype, development of the whole estate occurred not only along the red line of the street but also along the boundaries of the plot. In some cases, the central part of the estate was also developed. This form of development was preconditioned by the economic benefit of maximizing development of the whole site.

The type of building 1940-ies 1950-ies, implemented by individual architectural projects with a pronounced regularity and symmetry in the planning solution, can be attributed to the third morphotype, formed under the impact of the first two. It accounts for the complex symmetrical nature of the architectural object, perceived from the street side, the presence of green recreational areas, well-designed internal infrastructure, in accordance with the nature of the complex.

By the middle of the XIX century, Moscow residential housing development had been represented by two first morphotypes old Moscow low-rise sparse and low-rise perimeter, both being a consequence of the peculiarities of Muscovite life, whether nobleman, merchant or tradesperson. It worth mentioning that public establishments, whether architectural governmental bodies, workhouses or educational institutions, also represented the same architectural type of manorial construction. Mainly due to their architectural and space-planning concepts, manorial estates successfully housed various public establishments after their sale. [11,12]

Also significant is the fact that former palatial manor-houses became available for letting by separate apartments after their simple revamping. This shows multipurposeness of this architectural form within the considered period of time. The examples of palatial manor-houses include the mansion of S.S. Apraksin on Znamenka street, the manor of the count M.N. Golitsyn on Kuznetskaya street and others. [13]

Afterwards, the possibility to let the house by discrete apartments was built in at the design stage. This resulted in huge popularity of manor-houses as multi-dwelling tenement buildings. Along with multi-dwelling and tenement buildings, manor-houses became a prevailing housing type in the private residential development of Moscow in the second half of the XIX century. [14] The tendency of the city authorities to acquire former mansions with the purpose of their reinvention for city needs and placement of public establishments is very indicative as it demonstrates the universal character of this architectural form suitable for various social needs. Currently, many cultural and educational institutions, as well as governmental authorities, are located in the preserved manor-houses.

In the second half of the XIX- the beginning of the XX century, a typical dwelling of Muscovites was represented by a private house or a rented tenement. Private dwelling looked like a private one-family residence with adjacent territory in front of the house. This territory could be of different size that depended on the host social status and the locations of a plot in town. [15] On the cusp of the XIX and XX centuries, town development resulted in the sharp increase in the number of available tenements. At the same time, the type of a private house with adjacent territory still represented a traditional Moscow
dwelling. Thus, by the beginning of the XX century, architectural and historical environment of Moscow had been formed. It shaped the historical appearance of old Moscow that should be accounted in the future development of historical city. However, overcrowding of historical urban development appeared as one of the particular features of development and renovation of central territories within the framework of well-established grid and historical scale of streets and lanes, often with no regard for architectural and planning structure of previous development formed by centuries. Construction works on such historical properties are usually implemented with violation of so-called red lines. [5]

Along with that, despite the high density of development in the central districts and active erection of apartments blocks on the town outskirts, the concept of private housing with an adjoining allotment in still relevant in a modern town. Currently, a townhouse is seen as one of such forms of urban housing with adjacent territory. [16]

Historically, townhouses appeared in England in the XIX century as family homes housing few generations of residents. This edifice dwelled upon an urban house, with various adjacent accommodations with separate entrances. Thus, construction costs were reduced by means of economy in developed space. Vertical arrangement of residential space was typical for these houses, with the purpose of economy in expensive developed land. Townhouse emerged as a compromised solution between urban dwelling and a country home that enabled to combine urban location of a house with coziness of an individual dwelling.

Along with that, as opposed to a country house, such a townhouse might be surrounded by a tiny house land plot or it might not possess any. However, the historical architectural tradition related to the development of low-rise housing for few families should be considered in the number of cases referred to the renovation of historical territories or development of new ones. In the first scenario, low-rise housing development retains historical scale where the city fabric remains unified and harmonious. This is particularly relevant in the vicinity of historical buildings and structures. In the second scenario, low-rise development forms a natural habitat and is incorporated in it, while well-proportioned scale should be retained.

At the stage of townhouse design, customer’s needs are taken into account, and a compromise solution is usually found. Such a solution enables to form a secluded space at the most, being one of the main attributes of traditional architecture of old Moscow.

Townhouse itself, as a type of dwelling, is a quite flexible formation, where the needs and desires of a future host are taken into account to the fullest degree, in particular, in terms of townhouse internal planning, similar to a country house. However, as opposed to a country house or cottage, a townhouse is integrated into the urban life-support system: water and central gas supply, etc. – the typical attributes of a townhouse. In some cases, townhouses can form settlements integrated into the urban infrastructure.

4 Discussion

Low-rise construction, represented by townhouses, being the fusion of existing experience and historically formed urban planning tradition, is an issue that requires in-depth study, as it entails a revision of the principles of urban development and the complexity of the development of the infrastructure system, including road, transport and social, all of which requires additional financial investment.

5 Conclusion

Of course, this form of urban housing entails certain difficulties, which are related to the expansion of urban areas, the prolongation of transport routes and the development of
social infrastructure. At the same time, the tendency to reinvent individual low-rise housing and the formation of a humane urban environment make it possible to scrutinize historical experience and apply it to the modern urban reality. This form may be close to the old Moscow urban low-rise sparse morphotype, but in its modernized version. The actualization of this form may result in the formation of a sectional low-rise house for 8-12 apartments, providing for a free layout of internal space and a small adjacent territory. Scale with the historical architecture will allow to integrate this form of house into the historically formed areas of the city, without destroying the established city fabric, as well as such a form, located in natural areas, will fit much more harmoniously into the natural landscape, continuing the tradition of the city surrounded by gardens and parks.

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