Influence of mass repatriation factor of Armenians in the first half of the 20th Century on the formation of spatial and planning structure of Yerevan

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Abstract. The article deals with the management of the process of development of the planning and spatial structure of Yerevan, taking into account the factor of mass repatriation of Armenians 20-70th. The specificity of territorial and planning development of the city at different stages of rapid development is analyzed. Data on mass repatriation of Armenians and their resettlement are given. The compositional and planning principles and features of the formation and territorial organization of residential settlements and areas for returnees, which later became the most important planning parts of modern Yerevan, are considered.

The provisions and principles outlined in the report can be useful in the study of various aspects of the architectural and spatial development of Yerevan and can be used at all stages of design related to the prospect of further architectural and planning formation of urban systems of Yerevan.

Introduction
The capital functions of Yerevan and its location largely determined its rapid growth and advanced development in relation to other cities of the Republic. On the other hand, the uniqueness of the historical and cultural environment and the location of historical and architectural monuments, as well as the level of development of cultural and consumer services, the concentration of central functions, the geometric location of the center, the relief, the level of development of individual planning axes largely determined the specifics of the distribution of urban areas.

The mass repatriation of Armenians in the first half of the 20th century was also one of the important factors in the formation of the spatial planning structure of Yerevan. At all stages of development, for quite a long period of time, in the draft master plans of the city, the formation of planning units of the city was directly influenced by the constant influx of new flows of foreign immigrants, which caused the need for a compact organization of new residential structures and settlements of different types in the city system and the surrounding areas.

Yerevan is 2800 years old and its official dating is connected with the Foundation of the Erebuni fortress on mount Arinberd. However, the purposeful formation of the planning structure of the modern city of Yerevan began in the middle of the 19th century and continued from the beginning of the 20s.
At the heart of the modern planning of the core of the city are the city plans in 1837 and 1856, organized on the principle of regular planning using a rectangular grid of blocks. Here the city developed in the North-East direction from the ancient fortress and the administrative center of the medieval city, covering the main residential areas reaching the foothills of the surrounding hills, where the following main functional areas were distinguished:

- commercial zone, concentrated in the area of the Market Place and surrounding neighborhoods;
- administrative and public zones, which began from the front of the city Cathedral Square in the central part;
- residential areas, extending in a semicircle around the trade and administrative center;
- industrial areas, elongated in the western part of the city along the Hrazdan river;
- green areas, formed by public parks, in a green ring around the city belonging to the citizens of peripheral gardens [1].

In the early 20s, the structure of the city was formed on the basis of a rectangular grid of streets, in a system of closed quarters not exceeding 4-5 hectares in size. It was a typical provincial city, one-two-story appearance and the scale of which corresponded to the social and economic conditions of life in which there was pre-revolutionary Armenia.

Radial-ring planning structure, incorporated in the master plan of the city of Yerevan in 1924-1926 academician A.Tamanyan, has become a factor for a long time determined the further development of the structure of the city and the scale of its central core. At this stage, the city, where the planning principles of classicism and popular ideas of the city garden were largely used, was a complete picture, where all its elements were in structural unity. Compositional axes North-South (North Avenue) and North-West-South-East (Main Avenue) structurally united the most important nodes of the city and its central core - various centers differentiated by their functional purpose (administrative, cultural, student, etc.), a system of squares, boulevards, green areas. Bordered by a system of ring streets, well connected with the landscape features of the area, the city was a complete “self-sufficient” organism. Its scale has also changed. The city became 4-5 storey with large compositional acceptances, such as the government House on Lenin square, the Opera house, which still determine the architectural scale of the city, and accordingly its scale in connection with the change of its value and functions performed by it [1].

From 1921-1973 almost 200000 Armenians were repatriated to Soviet Armenia, most of whom settled directly in Yerevan. Historiography identifies three stages of mass repatriation:

- 1921-1938 - first repatriation (more than 60000 people)
- 1946-1948 - the second or Big repatriation (about 100000 people)
- 1962-1973-third repatriation (more than 26000 people) [2].

The immediate result of the mass repatriation that started in the 1920-ies and continued in the 1930-ies, was the planning and construction of such well-known settlements as the New Arabkir (1925), New Butania (1925), New Eudokia (1925), New Malatia (1927), New Sebastia (1928), New Kharbert (1929), Noubarashen (1930), New Tomarza (1931), Newr Kghi (1931), New Tigranakert (1934), New Cesarea (1934) and after the war New Zeytun, New Marash, New Cilicia, New Aresh and other settlements.

So there were all new settlements of immigrants, some of which were later included in the structure of Yerevan, leaving a certain influence on urban planning decisions and architecture of the city. Thus, already in the 50-60s Yerevan became a kind of model of historical Armenia. Later, some of these settlements were renamed for various reasons, but many of them still have their original names. Some settlements have become part of larger administrative areas or, conversely, have incorporated others.

Already in 1925 in the North of Yerevan was founded Nor (New) Arabkir, built and designed for immigrants settlement, the formation of which played a crucial role for the further construction of settlements, which received a wide scope in the future. The government entrusted the planning of the village to academician Al.Tamanian, the design of the master plan which harmoniously combines some of the principles of the ideal city and city garden, which is also laid down in the Master plan of
the city of Yerevan [3]. With further expansion of the village had the opportunity to develop due to the reserve land on the East side.

In 1937 a new scheme of the Master plan of Yerevan was developed in the Project Institute "Giprogor" under the leadership of Malozemtsev. According to this project, the area of Arabkir, the city of Yerevan, almost doubled, including about a fourth part of the built-up village. According to the new scheme, it was planned to conduct a rectangular network of streets, create green areas, but the idea of a city garden was largely distorted. Based on the above scheme in 1947 V.Grigoryan, N.Grigoryan and A.Zargaryan developed in the architectural studio of the Yerevan City Council the new Master plan of Arabkir district.

In 1927 the former residents of the city Malatia and its surrounding villages of historical Armenia, inspired by the already begun construction of settlements of immigrants in Soviet Armenia, decided to establish a new settlement on behalf of their city. The settlement had basically a rectangular network of streets stretching in the direction North-South and East-West.

In 1930 academician A.Tamanian designed the General layout of the new village of Noubarashen. In the Master plan of Noubarashen, as in the design of the village of New Arabkir, the author compared the principles of designing an ideal city and a city garden [4]. Plan of Nubarashen 1930 indicate the blocks with the following titles: New Tlkatin, New Hapusy, New Hajn, New Balu, New Chenqush, New Khoshmat, New Keorbe [5].

In 1932 the village of New Sebastia was included in Yerevan. Having expanded further, it included the settlements of New Tomarza founded by repatriates [7], New Kghi, New Cesarea [8], New Tigranakert which now became separate quarters or streets of the Yerevan district of New Sebastia.

The official ceremony of laying the Foundation of the New Tigranakert village took place in 1934. Preserved map - "the city of Yerevan and the surrounding villages", compiled by A. Igitkhanyan in 1935, where next to other settlements of immigrants is also a schematic plan of the New Tigranakert, according to which it has a regular grid of streets [9]. For the construction of the village of New Caesarea, a plot of land was allocated next to the New Tomarza, given that it was planned to build a large and exemplary village, where the New Tomarza will be one of its neighborhoods.

Thus, all new settlements of repatriates appeared, some of which were later included in the structure of Yerevan, leaving a certain trace in the architectural appearance and layout of the city. Thus, in the 50-60s, certain territories of Yerevan became a kind of miniature model of cities and settlements of historical Armenia [10]. Later, some of these settlements were renamed for various reasons, but many of them still have their original names. Some settlements have become part of larger administrative areas or, conversely, have incorporated others [11].

The rapid rise of cultural and socio-economic potential of the city led to its further growth and further processing of the master plan. In projects 1938-1939. (Leningrad Giprogor, R.Malozemtsev) and 1950-1951 (R.M.Zargaryan) the radial-ring structure of the city has become more developed.

It should be noted that the radial-ring structure was considered to be the most progressive at the time when the group system of interconnected settlements in Armenia was just being formed, was still in its infancy and economic and cultural ties were still quite weak, the city seemed to be complete, enclosed within certain boundaries corresponding to its internal needs. Large buildings were located in the city center for silhouette and planning accentuation.

New areas of the city, including the areas of repatriates, as a rule, were allocated for low-rise buildings. Great importance at that time was attached to the construction zoning of the territory, which was carried out on the principle of increasing the number of storeys to the city center. This led to an unjustified expansion of the city. Part of the city bordered by the ring streets, which in the first Master plan was actually the city itself, turned into its central core. Although the territory of the city has
grown significantly, the planning structure in these projects has not undergone any special changes. It developed according to the planning principles laid down in the project of 1924.

Meanwhile, the growth of the city, especially in the first post-war years, led to a significant increase in the length of communications. During this period, labor and cultural ties between the urban and surrounding population are becoming more active. The active formation of an interconnected group of settlements begins, that is, the centripetal trends of the surrounding population are increasing.

In the 60-70s, a new flow of repatriation began, this time due to internal migration from the republics of the Soviet Union. Insufficient saturation of service institutions in the peripheral parts of the city and the Republic has strengthened the centripetal trends of the urban population and pendulum migration in general. In the Northern and North-Eastern parts of the city outside the central ring are beginning to accommodate new large areas and institutions of citywide importance. With the development of central functions in new directions there is a spatial development of the structure of the city and its center [12]. Thus, although in the master plans of 1938-1951 the structure of the city and the center remained almost unchanged, but in fact it has undergone a significant transformation due to the influence of internal and external factors. In the process of development, the existing planning units no longer corresponded to the urban scale and functional requirements of the corresponding capital city with a population approaching one million. The city was undergoing an internal transformation. Once again there was a problem of changing its scale.

The fourth master plan of the city began to be developed in 1961 and was approved 1970 (arch. M.Mazmryan, E.Papyan, G.Murza, P.Chakhayan). Under this project, the city is developing in the Western, Eastern and Northern directions, maintaining its compact structure. In the planning of the city the principle of differentiation of the city structure on a multifunctional basis, the division of the city into zones (residential, industrial, public, recreational, etc.) was used. The structure of the city was divided into nine planning areas, which determines its polycentric nature. In order to unload the centre from excessive transit traffic, a direct link between the planning areas in the form of through-speed diameters running tangentially to the planning areas and forming a new ring around the citywide centre was envisaged. The city began construction of the subway, provided by the project.

Thus, the development of the planning structure of the city at all stages was of a successive nature. However, in the process of development planning construction all the time transformed due to the influence of external factors, imperfections of the city structure, its incommunicability. Based on the relative "self-sufficiency", concentration of such a large city structure is already in conflict with the dynamics of socio-economic and cultural processes, the mobility of urban and surrounding population, with the dynamics of the city. At this time, there is a tendency to divide the city into large parts with developed centers, which predetermines the transition to the polycentric structure of the center and high-speed links. High-speed communication, passing tangentially to the planning areas do not provide the proper degree of interaction of public centers with the transport structure of the city. The categorized system of construction of service does not give the proper level and quality of saturation of the centers of planning areas and does not provide a system of external interceptions of the gravitating population [13].

In the 2000s, the project of the new Master plan of Yerevan was developed and approved in 2005 (G.Mushegyan, P.Soghomonyan, A.Aloyan, E.Stepanov, etc.). Taking into account the current situation and priorities, the project was focused on the development of integrated measures for the development of architectural and spatial environment, modernization of all urban systems. The basic concept of management and development of the city was formed in accordance with the accepted international standards, taking into account the fact that Yerevan is a political, social, innovative center of international cooperation for Armenia and the whole of Armenians for the implementation of economic programs and the introduction of high technologies. Taking fully into account the requirements of the modern stage of development, the Master plan is considered as the main urban planning project document for the sustainable development of the capital of independent Armenia [14].
Summary
The mass repatriation of Armenians in the first half of the 20th century had a significant impact on the formation of the spatial planning structure of Yerevan. The construction zoning of the territory, which was carried out on the principle of increasing the number of storeys to the city center in the conditions of rapid growth, led to the unjustified expansion of the city. The placement of large planning nodes in the city structure, the reorientation of the most active intra-city movements to high-speed main directions, the development of high-speed rail transport, made local improvements in the city structure, at the same time stimulated movement. The expansion of territories and the increase in the number of traffic causes a deeper transformation of the planning structure, which is expressed in qualitative changes in its material and static basis. There is a complication of functions, change of their town-planning value and scale. In the new conditions, the tasks of complex balanced and uniform development of all planning parts of the city come to the fore, which implies:
- redistribution of city-wide functions throughout the city;
- organization of a single system of self-sufficient and uniform “urban zones” on the basis of the developing structural and planning framework;
- the formation of a single united network directed planning and spatial structure of a polycentric system.

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Acknowledgements
This work has been carried out in the frame of “Creating the ways for sustainable urban, architectural and construction complexes development in RA and elaboration of directions with use of permanent monitoring systems” programme, financed by Committee of Science of Republic of Armenia.