

INFORMAL LOW-RISE HOUSING IN THE SUBURBAN CONTEXT AS A PATTERN FOR THE NEW NEIGHBOURHOODS: THE CASE OF CITY OF TETOVO, NORTH MACEDONIA

DOI: https://doi.org/10.18485/arh_pt.2024.8.ch33

_ Vlera Tachi

PhD student, Ss. Cyril and Methodius
University in Skopje - Faculty of Architecture,
North Macedonia, thaci.vlera@hotmail.com

ABSTRACT

The expansion of cities in North Macedonia is the broader framework in relation to which the research will be located. In this paper – the expansion of the outskirts and the low-rise housing will be specifically researched in the suburbs of Tetovo. The problem is in the overall buildings today in the suburbs because, on one hand, the residential informal buildings prevail, whereas, on the other hand, profiteering aspects dominate. It is supposed that the low-rise residential building recommended in the planning documents does not follow the real social needs.

The research paper refers to the development of suburbs in the city of Tetovo, where it will investigate how the outskirts of the same city have changed over the last decades and what is happening in them from a morphological and program aspect. The research aims to recognise growth patterns in the low-rise residential neighbourhoods in the suburbs, which will be examined on the methodological level through a chronological review of the archival documentation and observation of the actual situations of the same physical contexts.

The research asserts that the city's development only partially follows the planning documentation, i.e., a major part of the low-rise residential buildings is built in agricultural land and zones planned for retail and industry. The lack of a vision for low-rise housing in the suburbs and the absence of plans tailored accordingly to the social needs prevent low-rise housing from becoming an innovative tool for the city's growth. The building of low-rise housing in the suburbs should be based on the idea that low-rise housing is a specific option for growth resulting from careful consideration and evaluation of the spatial and social context. Therefore, the planning of low-rise housing in the suburbs should be understood as an open form of experimental architecture to improve their quality of life in them and help the city grow in a better and more controlled way.

KEYWORDS _ *suburbia, informal low-rise housing, growth pattern, neighbourhood, quality of life*

INTRODUCTION

The low-rise residential buildings in the suburbs of the cities in North Macedonia began to arise in the last decades. At a time when the city can no longer accommodate more inhabitants, its expansion begins. Such phenomenology becomes a problem in modern society when it increases to the extent that it leads to chaos and a significant reduction of the quality of life. The problem is in the overall buildings today in the suburbs of the cities in North Macedonia because, on the one hand, the residential informal buildings prevail. In contrast, on the other hand, profiteering and investment aspects dominate. The typology specifically recommended in urban plans becomes a problem because the profiteering urbanism prevails in which the low-rise housing is offered on a market basis from real estate agencies and not on the real basis of social needs.

This paper aims, on a documentary level, to investigate the chronology of the evolution of the phenomenon of low-rise housing in the suburbs of the city of Tetovo and, on methodological level, to find ways to read the specific growth patterns of low-rise residential buildings in suburban contexts and in that sense, it is based on archival documentation, planning and project documentation and the unpublished master thesis T(e)65 - Examining growth and synergy between the city, infrastructure and landscape (Nikoloski 2020) - which documents the growth patterns of the city of Tetovo. The research aims to obtain information about how the edges of the city of Tetovo have changed over the last decades, to document what happens in them from a programme point of view and to understand the patterns of conversion of agricultural land to urban land through the collection and chronological review of the archival documentation, planning and/or project documentation and through analysing and interpreting the data extracted from the above documentation.

The first part includes an overview of the historiography of the city's expansion from the second half of the 20th century, presented through the chronology of city growth patterns. (Nikoloski 2020) The second part of the paper will present a closer overview of the suburban context of the city in the last four decades, developing a graphical representation of the case study through photographs and graphic drawings, a base for developing a possible generic typology in low-rise residential housing.

LOW-RISE HOUSING IN SUBURBAN CONTEXT – THE CASE OF TETOVO

The research refers to the analysis and interpretation of the collected data from the planning documentation and the actual situation in the suburbs of Tetovo. The rationale of the study is shown with a series of graphical drawings, starting from the evolution of the spatial growth of the city of Tetovo and the definition of the suburban zone of the city to the emergence of the phenomenon of informal low-rise residential buildings illustrated through the neighbourhood "Van Vardarska".

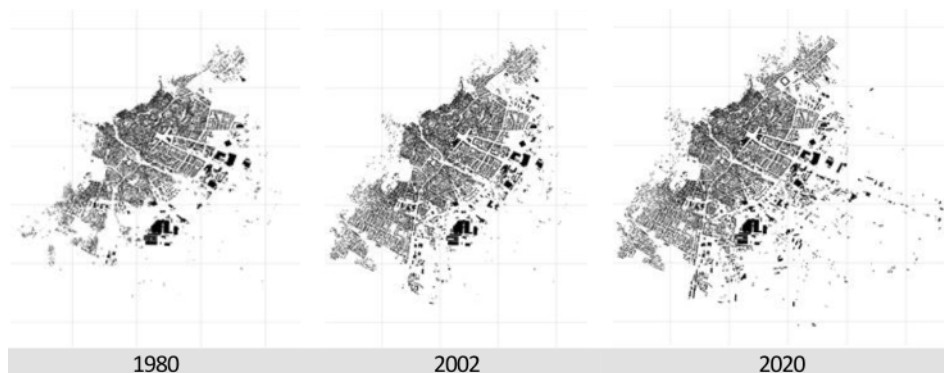


Figure 1: Chronology of growth patterns of the city of Tetovo in the last 4 decades

According to statistics, the built area of the city of Tetovo in 1980 was 116.34 ha, while the number of inhabitants was 46,523. In 2002, the built area was 131.32 ha, while the number of inhabitants was 52,915. And in 2021, the built area is 167.83 ha, while the number of inhabitants is 84,770. (State Statistical Office, Republic of North Macedonia) From the 19th to the 20th century, which can be seen as the first phase of development, when the settlement began to take on the form of a city, the city had no more than 5,000 - 6,000 inhabitants. Population growth, and thus the expansion of cities, is a global phenomenon, and from the statistics it can be concluded that the city of Tetovo is not an exception to this phenomenology. The ancient, medieval and other older settlements that existed on the site of Tetovo have almost no role in shaping the city's present appearance. (Municipality of Tetovo) Morphologically, the city of Tetovo in the 20th century did not differ much from the other cities of the Balkans at that time. Reading the old part of the city, one can see the irregular street network, narrow streets, densely packed buildings, bazaars with shops in a row and public spaces that appeared as voids and greenery in some places. The city developed spontaneously, without a specific development plan, except for the basic natural postulates for building, such as sun, air and view. The spontaneous development ended after the Second World War. This period represents the second phase of development when the city receives an urban plan and vision for development. In the last four decades, only a deterioration of urbanism and the development of the city can be observed, or a third stage of development when the city is again left to develop spontaneously, unsustainably, without a plan and vision for the future. (Nikoloski 2020)



Figure 2: Evolution of spatial growth and definition of the suburban zone

By superimposing the growth patterns of the city of Tetovo from the last four decades, the suburban zone of the city, which is still emerging, can be defined. Until 1980, the border of the city fabric was more precise, and the city's growth was more controlled, while since 2000, the borders appear diffuse and show an uncontrolled growth of the city. (fig. 2) Such a phenomenon can be observed, especially in the city's west-east extension zone. In this newly created belt, the newly built buildings have various functions, from industry, retail, public facilities, collective housing and individual housing. It is assumed that individual housing or the construction of low-rise residential buildings, both by individual land owners and investors in recent years, for profiteering reasons, has a more significant influence on the emergence of this phenomenon of suburbanization. Such buildings are often illegal, and the low price of land in such areas is a common reason for both groups, those who build individually for the

needs of their families and investors who, through “real estate” policy, occupy territories and build low-rise residential buildings, and then sell them at much higher prices. (Harris and Larkham 2016) Of course, the reasons for the occurrence of this phenomenon remain to be investigated through qualitative surveys. Still, for now, it can be concluded that the need for low-rise residential buildings in these areas is evident.



Figure 3: Low-rise residential buildings in the suburbs of the city of Tetovo

From a closer look at this suburban area, it can be concluded that the appearance of such unplanned, spontaneously formed neighbourhoods with low-rise residential buildings is repeated. The establishment of the larger neighbourhood started earlier, and that settlement already has its own identity, “Van Vardarska”. A minor settlement was born in the last 3-5 years, but although the number of low-rise residential buildings is small, the same pattern of growth can be recognized, that is, the multiplying of the figure of a house that is similar in shape and size. (fig. 3) Although such settlements arose spontaneously, from their built space it can be seen that they do not have the characteristics of the spontaneously formed settlements of the 20th century, with an irregular street network and densely packed buildings, but on the contrary they have characteristics of pre-planned neighbourhoods with an orthogonal street network, and an assumption is that the conversion of agricultural land into urban land led to this. The owners of the particular plots of agricultural land submit a request to the competent authorities for land conversion and re-parcelization of the same or mutually agree to leave an access street and divide the plot, which usually has an elongated rectangular shape, into plots of approximately the same width and depth suitable for building low-rise residential buildings. (fig. 4)



Figure 4: Reparcelization of agricultural land

To illustrate the emergence of low-rise residential buildings in the suburban context of Tetovo, the phenomenon is examined more closely in a section of the suburban fabric in the so-called “Van Vardarska” neighbourhood and its surroundings. After documenting the area’s current state in the suburban fabric, a comparison was made with the planned state of the same section in the general urban plan of Tetovo, which asserts the assumption that the planning documentation only partially follows the real social needs of the community. In the general urban plan, part of the zone where the low-rise residential buildings were informally built is planned as a retail zone. With the general plan, this suburban strip is mainly planned as an industrial zone, a retail zone and a public facilities zone. (fig. 5)



Figure 5: Excerpt from the last general urban plan of Tetovo (2002) and the actual current state

If a comparison is made of the same section with the surrounding environment in the morphological aspect, it is clear that this is a tendency of the overflow of the low-rise residential buildings into the empty territory, an overflow that is made possible by the two streets that connect the neighborhood with the urban fabric. (fig. 6)

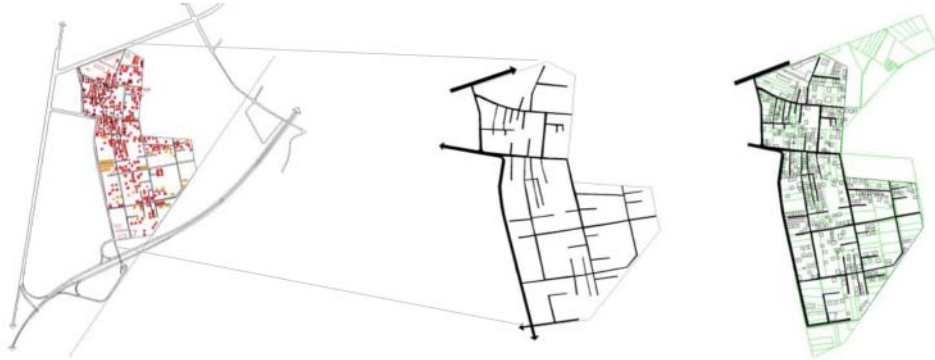


Figure 6: The connection of the neighbourhood with the city through the two streets in the north-west side

The chronology of the neighbourhood's evolution shows the settlement's spontaneous creation. In 1980, it was seen how the overflow of buildings between the two streets that connect the neighbourhood with the city in the north-western part began. In the last 20 years, the neighbourhood has been filled with low-rise residential buildings built by individual landowners, and in 2021, the construction of houses in a row was started by an investor. Although it is the only example of a low-rise residential building built by an investor in this neighbourhood, in the below graphic representation, it is seen that its figure dominates, indicating that such buildings built by investors for profit reasons

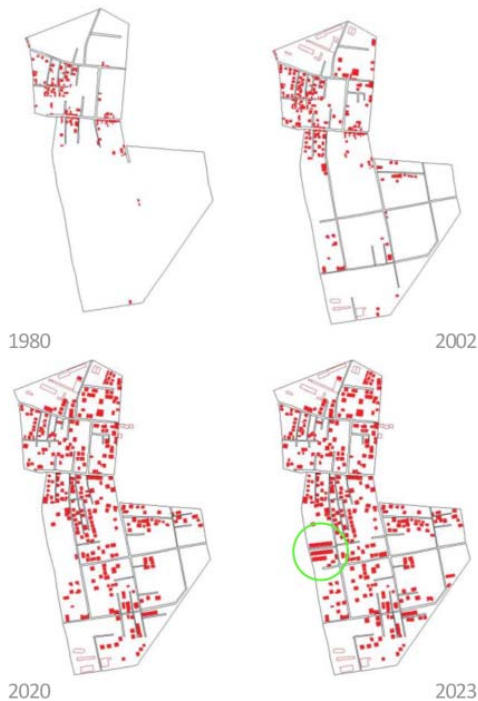


Figure 7: Chronology of the evolution of the "Van Vardarska" neighbourhood in the last 4 decades

occupy a large area and are an equally important factor in the emergence of the phenomenon of suburbanization. There are other examples of low-rise residential buildings built by investors in the suburban context of the city of Tetovo and it is supposed that in the following years such buildings will be a new trend in the process of suburbanization.



Figure 8: The emergence of the informal low-rise housing in the spatial fragment of "Van Vardarska" neighbourhood

The suburbs we know today won't be the suburbs of the future. As technology, urbanism, and ways of life evolve, so do our cities. Based on this and the idea that people should design their homes, streets and neighbourhoods (Alexander 1977), the further research aims to find out the interdependence of spatial configurations and social configurations in specific neighbourhoods and then to use the drawn findings to produce a generic typology, that it'll be able to adapt the needs of the inhabitants. It is known that an effective way of planning new neighbourhoods is the participation of the community, and nowadays, their involvement has become an easy task with the development of technology and the creation of interactive computer programs. In March 2000, KCAP and the University of Kaiserslautern started the project KaisersRot (KaiserslauternRotterdam). In 2001, the co-operation was merged with the Eidgenössische Technische Hochschule (ETH) in Zürich. In the project, new principles for generating urban plans have been developed in different steps. Based on these principles, new CAD software has been programmed. The software describes inter-dependencies between specific parameters.

The actual urban plan is not drawn anymore but generated according to specific requirements. In this way, structures are generated that could not be made with conventional design methods. In the traditional top-down process, the urban designer develops a public framework of streets and squares. Here, the innovative aspect is the degree to which an individual interpretation is possible. These areas are clearly characterized by a specific added value of the public space, which individual consumers cannot buy themselves. In the bottom-up process, which KaisersRot enables, the reverse takes place. Future inhabitants can now make their wishes clear on a wish list. Residents draw in this plot via an interactive computer program. The choices are combined in the computer program to form an overall image of the residential area. A certain percentage of the plot can be reserved for the municipality to install facilities: public green spaces, roads, visitors' parking, pipes and cables, etc. After the details have been filled in, an optimal access system is devised based on logistics. In this way, urbanism can be realized based wholly on demand. (Christiaanse et al. 72)

CONCLUSIONS

It's essential to define what the suburbs of Tetovo have long been associated with: urban sprawl, the reliance on automobiles, and the dominance of low-rise, low-density, single-use, private residential

buildings that characterise them. While the urban fabric's boundaries were precise for many years, that boundary has begun to blur, making the city outskirts feel similar to the city itself.

Low-rise housing in the suburbs from the last decades is an evident spatial-social phenomenon within cities in North Macedonia, illustrated in this paper through the case of Tetovo. They represent a new way of living between the city and the countryside, so low-rise housing in the suburbs promotes the new typology and suburban morphology as part of the city's development. The purpose of further research is to predict scenarios for housing in the suburbs, to produce a generic typology in low-rise housing, an open form of experimental architecture based on participatory strategies, to improve the quality of life in the suburbs and help the city grow in a better and more controlled way. However, seen in an integral chronological and spatial trace, we can plan the new neighbourhoods according to the growth pattern, repeated in the neighbourhoods mentioned above in the suburbs of Tetovo, mimicking the density, the shapes and the sizes. In the integral timeline followed by the research, the collected data from the planning documentation and the actual condition of the suburbs of the city of Tetovo are analysed and interpreted, illustrated through an example - the "Van Vardarska" neighbourhood and it is concluded that the planning documentation only partially follows the real social needs of the community. The specific social needs of the community in the suburban context remain to be investigated in further research through qualitative research surveys. Still, from the documented situation, it can be concluded that the need for low-rise residential buildings in these areas is evident. The further research aims to find out the interdependence of spatial configurations and social configurations in the specific neighbourhoods and, in addition, to draw knowledge about the cultural patterns in the typologies of the low-rise residential buildings that will be useful in the planning and building of low-rise housing in future suburbs.

REFERENCES

- Alexander, Christofer. 1977. *A Pattern language: Towns, Building, Construction*. Oxford University Press
- Harris, Richard and Larkham, Peter. 2016. *Changing Suburbs - Foundation, Form and Function*. Routledge
- Nikoloski, Uros. 2020. T(e)65 - Examining growth and synergy between the city, infrastructure and landscape. Skopje: Ss. Cyril and Methodius", Skopje, Faculty of Architecture, Skopje. Unpublished master thesis.
- Christiaan, Kees, et al. "KaisersRot: Software to generate urban plans." *Density*, vol. 19, Spring 2002, pp. 72-73
- Municipality of Tetovo. Historical overview of Tetovo. Accessed April 5, 2023. <https://tetova.gov.mk/>
- State Statistical Office of Republic of North Macedonia. Population statistics of Tetovo Municipality. Accessed February 23, 2023. <https://www.stat.gov.mk/>