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Integrated Living Within the Forms of Architectural Housing Structures in the Period 1945–1970: The Case of Skopje

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Abstract

How does a city remember? A city remembers through its architecture. When thoughtfully guided by the sensitive application of appropriate architectural typologies, a city can cultivate a biographical identity. On the other hand, the loss of a city's architectural and historical heritage results in a profound loss of memory. The perception of architecture in the context of integrated living is deeply rooted in memory, drawing upon what has been previously constructed and experienced. The development of new architectural prototypes is inherently tied to a process of recollecting established typologies. The typology of structures for integrated living often embodies multilayered meanings, where one interpretation may be obscured by another, shaped by socio-cultural contexts and prevailing lifestyles. Typologies, however, are never exact replications of their originals; they are reinterpreted and analogous. The forms of integrated living encapsulate meanings reflect the cultural essence of dwelling, contributing to the evolution of transitional typologies.

Introduction

The identification and study of typologies represent one of the most effective approaches for tracing and understanding inherited architectural heritage. Through the act of naming—imbued with the capacity to symbolize and signify—it becomes possible to classify architectural structures systematically. This classification process determines groups of elements with shared attributes, thereby establishing specific typological relationships. The description of these shared characteristics may encompass factors such as function, spatial organization, a particular historical period, and more. Two primary methods of classification are particularly noteworthy: the first focuses on characteristics that facilitate the future repetition of analogous models, while the second emphasizes the ideal model, which encapsulates the essential attributes of all related structures. For Aldo Rossi, the concept of type or typology holds central significance as it provides a scientific foundation for architectural discipline. "Typology is presented as the study of types that cannot be reduced to urban elements, as the study of the city and architecture; no type is identified with a specific form, although all architectural forms can be reduced to certain types" (Rossi, 1996) [1].

In this way, typology becomes an analytical aspect of architecture at the level of urban entities. Aldo Rossi's core argument emphasizes that both the city and the individual are subjects of a unified set of events or experiences. These experiences imprint themselves on memory, collectively shaping an individual identity and awareness. Rossi interprets typology as a concept of self-recognition of architecture and the city, achieved through analogy and memory. By drawing comparisons to past experiences, we analyze similarities and differences, identifying the relationships among experiential dimensions, formal resemblances, and analogous content.

Architectural typologies of integrated living in the period 1945-1970: The case of Skopje

The post-World War II period witnessed significant demographic changes in the city of Skopje driven by the rapid expansion of industrial production. Rural-to-urban migration brought the housing problem

in cities to the forefront. The issue of mass housing, approached as a basic necessity or a "roof over one's head," became a central societal concern in the aftermath of the war. The transformations occurring within patriarchal families at the time, with a reduction in household size, influenced the concept of housing. Its restructured design reflected the altered needs arising from new lifestyles. Housing became a matter of social responsibility and care in the postwar socialist society.

Post-war residential construction in Skopje was characterized by the mass production of multi-family residential buildings, predominantly linear blocks with heights typically reaching G+4 stories. The concentration of mass housing during this period is evident in the residential neighborhoods of Prolet, Bunjakovec, and Mala Stanica, which were simultaneously developed across several locations in Skopje (Figure 1).

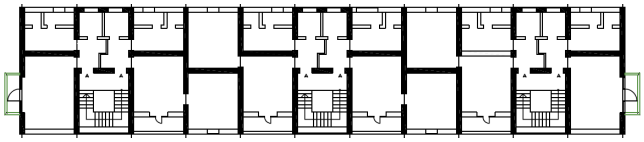

Figure 1: Residential blocks on the quay of the Vardar River, Skopje and the floor plan of a typical residential block G+4, architect M. Chakelja, 1950

The apartments were predominantly two-bedroom and three-bedroom units, featuring a layout with a walk-through living room and a kitchen. In three-generational households, the kitchen often served as a space for elderly family members, providing a warm and familial atmosphere. The low-rise design of the buildings, the relatively small number of apartments (two per floor per staircase core), the strong neighborly relations, and the direct connection of the apartments to the external environment through open spaces (terraces) and the green areas between buildings provided several advantages. These features facilitated a high-quality and integrated living experience for the residents.

To optimize the layouts of multi-family residential buildings, the construction of residential blocks with three apartments per staircase landing became a dominant design approach. This configuration remained widely adopted in the region until the 1970s.

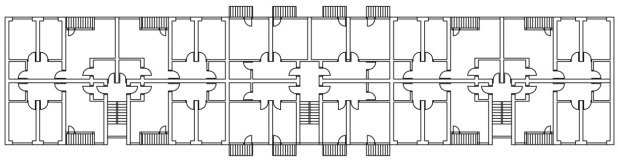

Figure 2: Floor plan of a characteristic floor in a typical residential block G+4, featuring four housing units per floor centered along a single staircase core, Karposh 1 neighborhood, 1958

Over time, the number of apartments per floor gradually increased, introducing buildings with four apartments per staircase landing, ranging from one-bedroom to three-bedroom units (Figure 2). A notable aspect of this evolution was the absence of a uniform scheme of functional organization of the apartments.

Towers, as an ideal of the European green city, have enriched the typology of our cities. During the 1960s, the tower emerged as a new type of multi-family housing in Skopje, typically G+9 floors in height (Figure 3). These buildings were defined by a strictly compact and predominantly rational floor plan, predisposed for symmetrically designed apartments with uniform layouts. A common configuration included four apartments per floor, with at least three featuring nearly identical designs. The further development of the three functional zones of the apartment can be observed in the three-bedroom units within three-winged towers. A key feature of this design is the placement of auxiliary spaces in a central zone, situated between the living area and the sleeping quarters. Notable qualities of this solution include a dedicated dining area and a circular transit flow within the apartment. While the residential construction of the 1950s was marked by a tendency to prioritize quantity over quality, the 1960s saw a shift toward higher standards. Although the two-bedroom apartment remained the most prevalent type in multi-family housing, regulations concerning apartment sizes and residential comfort introduced greater standards of quality and livability during this period.

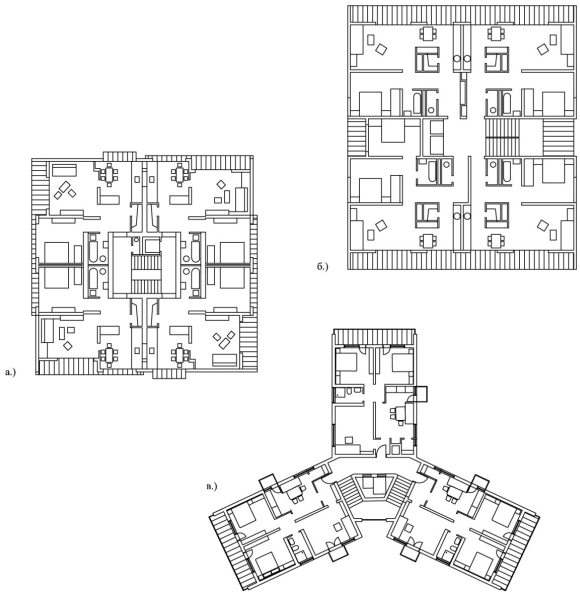

Figure 3: Residential towers in Skopje a) Ilindenska Street G+9, 1960. b) Residential towers G+9, quay of the Vardar River, architect A. Serafimovski, 1958. c) Three-winged tower G+9, Kocho Racin Street, architect A. Serafimovski, 1956

Apartments constructed up to the 1960s were often insufficient in size and functionality, even for nuclear families. The two-bedroom units of that period were almost invariably inhabited by three-generational households. Sleeping arrangements occupied every room: the bedroom was typically allocated to young parents, while children slept in the living room. The

living space served as a multifunctional area, accommodating both the individual and shared needs of family members. The kitchen was not only a space for cooking and dining but often doubled as a sleeping area for elderly parents (one or both). Under such overcrowded conditions, with a mix of overlapping life functions, the apartment was unable to address the diverse spatial needs of its occupants—be they individual or shared.

Prior to the 1963 earthquake, Skopje faced some of the poorest housing conditions within the former Socialist Federal Republic of Yugoslavia (SFRY). Despite 55% of the total housing stock (36,578 units) being constructed after 1946, only 24% of these units featured private kitchens and bathrooms. Approximately 35% had only a kitchen, while another 35% lacked any auxiliary spaces entirely. Most of the apartments consisted of only one or two rooms, resulting in severe overcrowding. The standard occupancy rate was 1.2 families per apartment, with an average of 2.5 persons per room and a mere 8.5 m² of usable living space per resident (Doxiadis, 1964) [2].

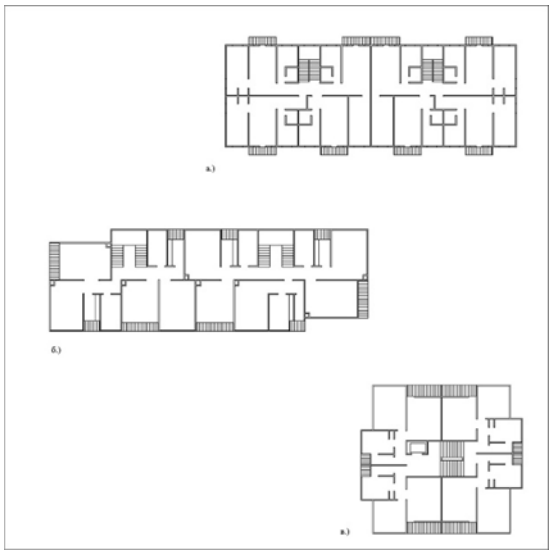

Figure 4: a) Residential block Karposh type G+3, Karposh 3 neighborhood, 1964. b) Residential block Jugomont type G+3, Zelezara neighborhood, 1964. c) Residential tower Jugomont type, Zelezara neighborhood, 1964

The catastrophic earthquake of July 26, 1963, further exacerbated Skopje's already critical housing conditions, bringing the unresolved housing crisis to the forefront. The destruction of homes amplified the fragmentation of living arrangements within multi-generational families, necessitating immediate solutions. This urgency was addressed through the rapid construction of prefabricated apartments in both family and multi-family buildings (Figure 4). The prefabricated multi-family buildings, such as the "Karposh" and "Jugomont" types, produced static apartments with rigid functional layouts, which failed to accommodate the evolving needs and dynamic structure of the family. The Karposh 3 neighborhood was fully constructed during this period with the well-known typology of prefabricated residential blocks and towers. The sectional typology of the residential blocks, standing five stories high (G+4), featured primarily two-bedroom units, followed by one-bedroom apartments, with three-bedroom units being the least common. The "Jugomont" residential buildings were produced in two forms: towers and blocks. The tower, essentially, represented a symmetrical solution with four two-bedroom apartments. The block design consisted of two sections, with two or three apartments per staircase core, resulting in a total of five apartments per floor—four two-bedroom units and one one-bedroom unit. In both the " Karposh " and "Jugomont" systems, the apartments were divided into static spatial units, and the rigid construction system did not allow for any variability in design solutions.

The intensified housing construction following the 1963 earthquake was primarily driven by an urgent need to prioritize quantity. While the construction of prefabricated residential buildings alleviated the dire housing conditions that had prevailed before the earthquake, Skopje continued to face a significant housing deficit, with around 20% of families lacking their own home. Since December 1963, 14,000 new prefabricated apartments had been built. The average size of the newly constructed apartments was 52.5 m², providing an average living space of 10.6 m² per resident. Recognizing the ongoing challenges, the Housing Policy and Program Study for 1964–1980, led by the Doxiadis Association, outlined ambitious goals as part of Skopje's urban redevelopment plan: Replacement of all substandard apartments by 1980; Maintenance of the existing standard (11.4 m² per resident) for apartments classified as good, and the construction of new apartments with improved standards to reach an average of 12.5 m² per resident for the entire population by 1980; The standard for new apartments was set to be 13.4 m² per resident, with 1.4 residents per room. (Doxiadis, 1964) [2]. According to this long-term program, the construction of 62,700 apartments was planned by 1980, with a particular emphasis on the construction of three-bedroom units. This study was conducted following a thorough analysis of factors such as family size, economic conditions of families, construction costs, and social aspects of living arrangements.

Conclusion

Through the analysis of the architectural typologies of the selected examples, we derive integrated housing from the local context of Skopje during the period 1945–1970, not in the form of taxonomy but as a complex correlation of diverse housing forms and modes of living, which together constitute the unique human experience of housing. In this sense, the distinctions between the presented housing models become blurred and dependent on the historical, cultural, and social context.

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