

ARCHITECTURE AS INSTITUTIONAL PRACTICE: DEVELOPMENT MODELS OF PRIMARY SCHOOL BUILDINGS IN NORTH MACEDONIA

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Abstract

This paper examines the institutional framework shaping the development of primary school architecture in North Macedonia throughout the twentieth and early twenty-first centuries. The research traces the evolution of educational systems across three key periods: pre-socialist conditions, socialist Yugoslavia, and post-independence transformation.

Based on historical analysis and statistical data, the study identifies three distinct models of school development. The first model, emerging after World War II, is characterized by mass construction and standardization aimed at eliminating illiteracy. The second model, following the reforms of the 1970s, reflects a shift toward self-management and greater architectural variation within standardized systems. The third model, in the post-1991 period, reveals a lack of coherence between educational reforms and architectural development.

The study suggests that school architecture should be understood as a product of institutional processes rather than purely design-driven decisions. In this context, school architecture can be understood as closely connected to institutional and educational structures.

Keywords: institutional framework, school architecture, primary education, North Macedonia, typology

Introduction

The development of primary school infrastructure represents a fundamental component of social and spatial organization, particularly in contexts marked by rapid political and institutional transformation. In North Macedonia, the evolution of school architecture cannot be understood independently from the broader educational system and its governing structures (Hörner, Döbert, Reuter, & von Kopp, 2015).

Following the Second World War, the establishment of a state-organized educational system initiated a large-scale process of school construction, directly linked to policies aimed at eliminating illiteracy (Ademi, 2017) and expanding access to education. These changes affected not only the educational system, but also the spatial organization and development of school buildings.

Despite the significance of this development, the relationship between educational policy and architectural production remains insufficiently explored. Existing studies tend to focus either on educational reforms or on individual architectural examples, without addressing their interdependence.

This paper aims to bridge this gap by examining school architecture as a product of institutional processes. By analyzing the evolution of the educational system and its materialization in built form, the research seeks to identify key development models that have shaped primary school buildings in North Macedonia.

Methodologically, the study combines historical analysis, institutional interpretation, and statistical data review to examine the relationship between educational policy and school architecture.

Institutional Framework of Education

1. Pre-socialist Conditions (1918–1941): During the period of the Kingdom of Serbs, Croats and Slovenes and later the Kingdom of Yugoslavia, the level of educational development remained significantly limited. As documented in historical records, a large portion of the population lacked access to even basic education, with illiteracy rates reaching over 40% in the early 20th century.

The insufficient number of schools, limited state investment, and widespread poverty resulted in low enrollment rates. Although legislative measures introduced compulsory education, their implementation remained inconsistent, particularly in rural areas. Consequently, the educational system during this period did not generate a coherent architectural framework, as school construction was sporadic and uncoordinated.

2. Socialist Transformation (1945–1963): A decisive shift occurred after the Second World War, when the newly established socialist state initiated a systematic reorganization of the educational system. Education was recognized as a key instrument for social transformation, leading to the implementation of policies aimed at universal literacy and compulsory schooling (Kamberski, 1994).

A five-year development plan introduced in 1947 defined clear objectives, including the elimination of illiteracy, expansion of school networks, and establishment of free education. Subsequent legislative reforms, particularly the introduction of compulsory seven- and later eight-year education, reinforced the institutional framework.

These changes had direct architectural implications. The rapid increase in the number of students necessitated the construction of a large number of school buildings within a relatively short period. As a result, standardized design approaches emerged as a practical solution, enabling efficient and economical construction.

3. Self-management (1963–1991): In the later phase of socialist Yugoslavia, particularly after the 1970s, the educational system underwent further transformation through the introduction of self-management principles. Schools were no longer centrally controlled entities but were governed by collective bodies composed of teachers, students, parents, and representatives of the local community.

This shift toward decentralization influenced both the organizational structure and the spatial configuration of school buildings. While standardization remained present, greater flexibility was introduced, allowing architectural solutions to respond to local conditions and specific community needs.

At the same time, the expansion of the educational network reached its peak, with a high percentage of school-age population being enrolled in primary education. This period represents a transition from purely functional standardization toward more differentiated architectural expressions within an institutional framework.

4. Post-1991 Transition: Following the independence of North Macedonia in 1991, the educational system entered a new phase characterized by legislative reforms and structural adjustments. The introduction of compulsory education laws and later the implementation of a nine-year educational system reflected efforts to align with broader European standards.

However, unlike the previous periods, this phase is marked by a weaker connection between institutional reforms and architectural production. While changes in educational structure were significant, they were not consistently accompanied by corresponding transformations in school design.

This resulted in a fragmented architectural landscape, where new interventions coexist with inherited building stock from earlier periods, often without a unified design approach or long-term spatial strategy.

Development of Educational Infrastructure

The development of educational infrastructure in North Macedonia reflects the broader institutional transformations of the educational system. The expansion of primary education, particularly after the Second World War, required a corresponding increase in the number of school facilities and their spatial capacity (Socijalistička Federativna Republika Jugoslavija, 1989).

Statistical data indicate a significant growth in both the number of schools and student enrollment during the socialist period (State Statistical Office of the Republic of North Macedonia, 1999–2021). The introduction of compulsory education led to the rapid construction of school buildings, especially in rural areas where access to education had previously been limited.

This expansion was not only quantitative but also organizational. Schools were planned as part of a wider network, responding to demographic distribution and settlement structure. The need to accommodate a growing number of students resulted in the development of buildings with varying capacities, ranging from small rural schools to larger urban institutions.

During the period of intensified construction, architectural solutions increasingly relied on standardized models. These models allowed for efficient implementation across different locations, ensuring consistency in spatial organization while reducing design and construction time. The repeated use of similar layouts and structural solutions suggests that school construction followed a coordinated planning logic.

In the later decades of the socialist period, the expansion of infrastructure reached a level of relative stability. The majority of the population had access to primary education, and the focus gradually shifted from rapid construction to the improvement and adaptation of existing facilities.

Following the transition after 1991, the development of educational infrastructure became less systematic. Although new schools were constructed and existing ones were renovated, these interventions were often fragmented and lacked a unified architectural or institutional strategy. As a result, the current condition of school infrastructure reflects a combination of different historical layers, each corresponding to specific institutional contexts.

Models of School Architecture

The analysis of the institutional development of education and the corresponding expansion of school infrastructure reveals the existence of three distinct models of primary school architecture in North Macedonia. These models are not defined primarily by stylistic characteristics, but by their relationship to institutional frameworks, educational policies, and construction strategies.

Model 1 – Post-war Standardization (1945-1963)

The first model emerged in the period following the Second World War, when the primary objective of the state was the rapid elimination of illiteracy and the establishment of a universal education system.

This period is characterized by:

- mass construction of school buildings

- strong centralization of planning and decision-making
- emphasis on efficiency and functionality

Architecturally, this resulted in the development of standardized school designs, where spatial organization was defined by basic functional requirements. Buildings were typically simple in form, with linear or corridor-based layouts that allowed for easy replication across different locations.

The primary concern was not architectural expression, but the ability to accommodate a large number of students within limited time and resources. As a result, school architecture in this phase can be understood as a direct materialization of institutional priorities.

Model 2 – Diversification within Standardization (1963-1991)

The second model corresponds to the period of institutional maturation and the introduction of self-management principles within socialist Yugoslavia.

While standardization remained an important tool, this phase introduced:

- greater flexibility in design
- adaptation to local conditions
- increased participation of local communities in decision-making

Architectural solutions became more varied, reflecting differences in site conditions, settlement structure, and specific programmatic needs. Despite these variations, school buildings continued to follow similar organizational principles.

In this sense, the second model represents a hybrid condition, where standardized systems coexist with localized adaptations. School buildings from this period often display more complex spatial organizations, including articulated volumes and differentiated functional zones.

Model 3 – Post-socialist Fragmentation (1991-present)

The third model emerges in the post-1991 period, following the transition to an independent state and the restructuring of institutional systems.

This phase is characterized by:

- discontinuity in planning strategies
- absence of a unified architectural framework
- reliance on ad hoc interventions and partial reconstructions

Although educational reforms continued, including the extension of compulsory education, these changes were not consistently translated into architectural development. As a result, school infrastructure evolved in a fragmented manner, combining inherited buildings with new additions that often lack coherence.

Architecturally, this model is defined less by clear typological patterns and more by variability and inconsistency. The absence of a strong institutional framework resulted in a shift away from systematic design toward individualized or situational solutions.

Comparative Overview

The three identified models illustrate a broader transformation in the relationship between architecture and institutional structures.

The first model demonstrates a direct and systematic relationship between institutional goals and architectural production.

The second model reflects a balance between standardization and adaptation.

The third model reveals a weakening of this relationship, resulting in fragmentation.

This progression highlights the extent to which architectural form is conditioned by institutional frameworks rather than purely design intentions. School buildings, therefore, can be understood as spatial expressions of specific historical and organizational contexts.

Discussion

The analysis of primary school architecture in North Macedonia demonstrates that built form cannot be interpreted independently from institutional frameworks. The three identified models reveal a direct correlation between educational policies, governance structures, and architectural production.

In the post-war period, architecture functioned as an operational tool within a centralized system, where standardization enabled rapid and large-scale implementation. School buildings were conceived as repeatable models, reflecting the urgency of social transformation and the expansion of education.

The subsequent phase introduced a more complex relationship between standardization and local adaptation. The decentralization of decision-making processes allowed for greater variation in architectural solutions, while still maintaining an underlying systemic logic. This period illustrates how institutional flexibility can generate spatial diversity without abandoning structural coherence.

In contrast, the post-socialist period is characterized by a weakening of the connection between institutional planning and architectural development. The absence of a consistent framework resulted in fragmented interventions, where school buildings are shaped by immediate needs rather than long-term strategies.

These findings support the argument that architecture should be understood as a form of institutional practice (Batakoja, 2021/2022). Rather than being driven primarily by formal or stylistic considerations, school buildings emerge as spatial responses to administrative systems, policy decisions, and socio-economic conditions.

Such an approach allows school architecture to be interpreted beyond individual buildings and stylistic analysis.

Conclusions

This paper has examined the development of primary school architecture in North Macedonia through the lens of institutional frameworks. By analyzing historical transformations in the educational system, the research identified three distinct models of architectural development: post-war standardization, diversification within standardization, and post-socialist fragmentation.

The study demonstrates that school architecture is not merely the result of design decisions, but a material expression of institutional structures and socio-political priorities. Each development phase produced different spatial and organizational approaches to school design. The study highlights the importance of examining school buildings through institutional and systemic relationships rather than solely through architectural form.

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