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ARCHITECTURAL TRANSFORMATIONS OF MULTIFAMILY HOUSING FROM 1960-1980 IN POLAND: PRESERVATION OF DETAIL AND THE IMPACT OF THERMAL MODERNIZATION

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Abstract

The article analyzes multifamily residential architecture from the period 1960–1980, which remains a dominant housing form in many Polish cities. The standardization of architectural solutions and the lack of individual features are now seen as reasons for the low visual appraisal of these buildings. Nevertheless, the uniqueness of some housing complexes was shaped by architectural detailing that introduced individuality into otherwise standardized structures. Due to thoughtful urban planning and proximity to green spaces, this type of development holds significant revitalization potential. Selected case studies illustrate changes in building forms and their surroundings after 1989, highlighting the impact of political and economic transformation. The analysis covered building scale, proportions in relation to the immediate context, facade design, construction solutions, and architectural details—including whether and how original detailing was preserved or transformed as a result of modernization processes. Special attention was given to thermal retrofitting, which significantly altered the visual character of many buildings.

Keywords: *Multifamily housing; Architectural detail; Facade aesthetics; Housing modernization; Post-war architecture*

Introduction

Multi-family block housing architecture of the 1960s and 1970s emerged as a result of the restructuring of urban environments in line with socialist planning ideals. Its defining features included simple forms and repetitive, function-oriented architectural details [1]. Typical design solutions allowed for a variety of balcony types, rhythmic loggias, and distinctive canopies over entrances. Although subordinated to practicality and material constraints, these elements also served an aesthetic role, giving an individual character to otherwise standardized buildings [2]. A characteristic feature of the architecture of the Eastern Bloc was the regular window arrangement and often a clearly articulated communication core with a stairwell [3].

In some cases, these buildings featured murals that, in addition to their aesthetic value, also served an informational function—displaying building numbers or advertising specific products. Some of them represented unique examples of graphic design from the second half of the 20th century [4]. It is worth noting that the first such realizations in Poland appeared as early

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as the 1950s. Today, many murals from that period have been obscured by thermal insulation because of modernization efforts.

The modernization of block housing began after the political transformation of 1989 and continues to this day [5]. It most commonly involves thermal retrofitting, window replacement, or changes in façade color schemes (Fig. 1). Additional elements such as balconies or elevators are introduced less frequently. The primary goal of thermal modernization is to improve the energy efficiency of buildings and bring them in line with current standards for heat retention [6]. Unfortunately, these interventions - often carried out without comprehensive design strategies or aesthetic oversight - frequently result in the complete erasure of original façade articulation and the loss of architectural detail. As a consequence, many residential complexes have lost their legible and coherent character, giving way to a visually fragmented and often arbitrary urban landscape [7].

Fig. 1. An example of departure from strict façade uniformity in multi-family residential architecture of the 1960s–1980s

The academic literature increasingly emphasizes the importance of preserving the heritage of post-war modernism and late functionalism [8]. There is also a growing call for the development of good practice guidelines for modernization - even in the case of buildings not formally protected as historic monuments [9].

The aim of this article is to analyze the scope and nature of façade transformations in multi-family block housing as a result of modernization, with particular emphasis on the preservation (or loss) of original architectural detail and façade appearance. The study focuses on the Krowodrza Górka estate in Kraków, a representative example of large-scale residential development from the 1970s. The article seeks to highlight both negative and positive examples of modernization and to draw conclusions regarding the potential for preserving the architectural identity of this type of housing.

Methods

The research methods adopted in this study are based on architectural analysis of selected buildings, as well as a review of the relevant literature and archival documentation. The research was conducted within the Krowodrza Górka housing estate in Kraków (Figs. 2 and 3).

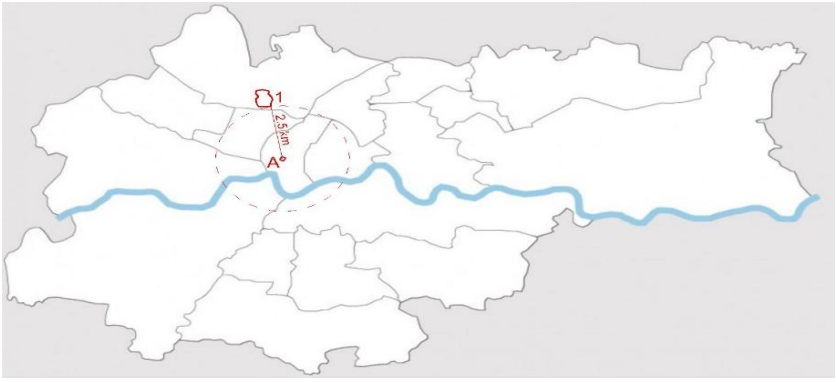

Fig. 2. Location of the Krowodrza Górka Estate in Kraków.
Legend: A – city center (Main Square); 1 – Krowodrza Górka housing estate

Fig. 3. Map of the estate with buildings included in the analysis marked in blue

The Krowodrza Górka housing estate in Kraków was developed in the 1970s as a large residential complex, covering an area of 42 hectares. It was built in the northern part of Kraków, approximately 2.5 km from the city center (Main Square). Today, the estate lies within the administrative boundaries of District IV – Prądnik Biały. The development consists primarily of buildings constructed using large-panel (prefabricated) technology, with varied heights and repetitive layouts typical of industrialized housing systems of that era.

The analysis focused on eight five-story residential buildings characterized by an almost identical architectural form. Their comparability in terms of size and façade articulation provided a basis for assessing the impact of modernization on the legibility of architectural detail and the formal coherence of the façades.

The primary research method was an architectural analysis of the eight selected buildings. It was carried out through on-site surveys aimed at documenting the current condition of the façades and identifying the scope and type of modernization interventions. This investigation was supplemented by an analysis of archival documentation and photographs—including technical drawings, floor plans, and elevations obtained from property managers' archives.

An important aspect of this particular building complex is its varied ownership structure—each building is managed not by a single housing cooperative but by different homeowner associations and property managers. This situation enables a comparison of different approaches to the modernization of nearly identical buildings, both in technical and aesthetic terms. Particular attention was given to the extent of interventions to the original façade layout, the presence or loss of architectural detail, and changes in color schemes. The collected data made it possible to classify the types of interventions and assess their impact on the legibility of the architectural form and the visual coherence of the housing estate.

Results and discussion

The conducted research enabled an assessment of the architectural qualities of block housing located within the Krowodrza Górka estate, both before and after modernization. All of the buildings underwent thermal retrofitting between 2000 and 2020, which involved insulating exterior walls and applying new façade layers. These interventions affected the legibility of the original façade articulation and the presence of architectural detail to varying degrees.

Based on the on-site survey conducted at the Krowodrza Górka estate, an assessment was made of the condition of original architectural details in the eight analyzed five-story buildings (Figs. 4 and 5). To systematize the results, a summary was prepared for each building, evaluating the degree of preservation of the following elements:

- façade articulation,
- entrance canopies (1),
- planters near entrances (2),
- masonry balustrades on loggias (3),
- planter holders on loggias' balustrades (4),
- planter holders on the northern façades (5),
- cornices on the southern façade (6)

Fig. 4. View of the northern façade – original condition

Fig. 5. View of the southern façade – original condition

The assessment was conducted using a three-point scale:
O - preserved in **original** form or accurately reconstructed (+1 point),
P – **partially** preserved or altered (+0.5 points),
N – **not** preserved (0 points).

The summary table of results (Table 1) is presented below.

Table 1. Preservation of original detail

Building n°	Façade articulation	Entrance canopy	Planters	Masonry balustades (loggias)	Planter holders (loggias)	Planter holders (north)	Cornice	**Score**
17	N	O	O	O	P	N	N	**3,5**/7
18	N	N	N	O	O	N	O	**3**/7
19	P	P	O	P	O	O	N	**4,5**/7
20	N	N	N	P	O	N	O	**2,5**/7
23	O	O	O	P	O	N	N	**4,5**/7
24	N	N	O	P	O	N	O	**3,5**/7
25	O	O	O	O	O	N	N	**5**/7
26	N	P	O	O	O	N	O	**4,5**/7
Score	**2,5**/8	**4**/8	**6**/8	**6**/8	**7,5**/8	**1**/8	**4**/8	

The presented summary captures the diversity of approaches to the modernization of buildings that are formally nearly identical. The analysis of individual architectural details revealed significant differences in how these elements were preserved or reconstructed, differences largely resulting from decisions made independently by various housing associations and property managers.

The most frequently preserved elements were the planter holders on the southern façades and the masonry balustrades in the loggias, which formed part of the overall balustrade composition. Their presence contributes to maintaining the original rhythm of the façade, even when other elements have been altered. Conversely, the most commonly removed features were the planter holders on the northern façades and the original façade articulation. The former, likely considered unnecessary and difficult to maintain, was eliminated in almost all cases. The original façade articulation, on the other hand, was largely obscured due to the application of thermal insulation and new plaster layers.

A tendency was observed to remove elements that current users may consider unnecessary (e.g., planter holders on the northern façade) or those that did not serve a directly practical function (e.g., cornice). As a result, during modernization, they were often deemed too problematic or costly to restore. However, the elimination of these details leads to a simplification of the façade composition and the loss of its original rhythm.

It should be emphasized that even in cases where attempts were made to recreate original façade articulation, this was done solely through different colors of plaster, without reconstructing the original material structure. Notably, the introduced color schemes differed significantly from the original ones - dominant shades of grey were replaced with pastel and often highly saturated tones, disrupting the original neutral character of the façades.

Among all the buildings analyzed, only building no. 25 can be considered relatively consistent with the original façade design. Most of the original details were preserved, and the façade articulation was reconstructed more meticulously than in the other cases. Nevertheless, even here, strong color accents were introduced - completely foreign to the original design aesthetic - which limits its value as a model of modernization.

To complement the analysis, current photographs of the façades were included for each building (Fig. 6), illustrating the effects of modernization and the present condition of architectural details. The photographic documentation allows for a direct comparison of the outcomes of different modernization strategies and serves as a visual representation of the trends outlined in the table of results.

Despite the common belief that block housing from the 1960s and 1970s lacks detail and individual solutions, the analysis revealed that the original form of these buildings included

simple yet consistently applied architectural details with a functional character [1], [10]. Although the design solutions were highly standardized, the buildings still exhibited individual features resulting from the use of subtle compositional, material, and functional elements (Fig. 7).

Fig. 6. Northern façades of the analyzed buildings (current condition)
Buildings shown in order: Krowoderskich Zuchów street: a - 17, b - 18, c - 19, d - 20, e - 23, f - 24, g - 25, h - 26

Fig. 7. View of the northern façade — original condition

The most important elements of the original architectural detail included:

- Horizontal façade articulation, achieved through the use of plaster in different colors and structures;
- Canopies over entrances;
- Planters at the entrances, forming part of the entrance zone composition;
- Loggias' balustrades, composed of masonry elements and steel railings;
- Planter holders (on loggias' balustrades and on the northern façade), originally covered with asbestos-cement panels (so-called eternit);
- An eternit cornice on the southern façade.

This set of elements formed a coherent, functional-aesthetic composition typical of residential architecture from the 1960s to the 1980s, in which detail was subordinated to function yet retained a certain visual expressiveness.

Conclusions

The research conducted showed that the modernization of post-war residential block housing - despite often being justified by aims to improve technical and aesthetic standards - has in many cases led to the loss of original architectural features. Thermal retrofitting, carried out without aesthetic guidelines and regard for the formal values of the original designs, resulted in the erasure of façade rhythm and the removal of original details.

Differences in approaches to modernization - resulting from the varied ownership structure (different housing associations and property managers) - demonstrated that a conscious decision to preserve or reconstruct architectural details is possible and can sometimes yield very positive outcomes, both in formal and functional terms. Examples of buildings where elements of the original composition were retained (e.g., building no. 25) highlight the potential of modernization carried out with respect for the values of the original architecture.

At the same time, it was observed that the lack of coordinated modernization efforts across the entire estate has led to significant aesthetic dissonance, particularly in terms of color. Mismatched color schemes negatively impact the visual coherence of the housing complex, which weakens its overall identity and architectural value.

Considering the above, the following recommendations were formulated:

- the need to develop local aesthetic guidelines for the modernization on individual estates,
- the promotion of good practices in preserving details and original façade articulation,
- the education of housing associations on the value of post-war modernist architecture,
- the provision of design and advisory support from municipal planning departments and conservation services - even in the case of buildings not formally protected as a part of architectural heritage.

Preserving the architectural identity of housing estates from the 1960s to 1980s does not have to be at odds with their technical modernization. On the contrary, it can form the foundation for revitalization efforts that respect the history and everyday aesthetics of residents' surroundings [11]. It is worth emphasizing that care for original formal solutions, detailing, and compositional rhythm should extend also to buildings outside the scope of official heritage protection. Their value lies not only in the uniqueness of form but also in their role in shaping coherent and legible urban structures [12].

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