Details of Krakow’s Modernist townhouses

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Abstract. The aim of this paper is to present the key features of façade details typical for townhouses erected in Krakow in the period 1918-1939. It emphasizes the importance of the townhouse details for Krakow’s cultural heritage and the pressing need to document them. Since the funds of the Social Committee for the Renovation of Krakow’s Monuments are allocated in the first priority to overhauls of public utility buildings and registered monuments, the modernist buildings have little, if any, chances for renovation. Meanwhile, they continue to fall into disrepair, which makes the documentation efforts even more urgent. Only a few most precious buildings from the interwar period are listed in the register of monuments. The remaining ones are not awarded by appropriate legal protection. Based on the analysis of the influences of a variety of trends on the development of Krakow’s townhouse façades and their details in the period 1918-1939, three basic groups of façades were identified. The first one relied on the historic style, the second, and most numerous one, combined historic and functionalist forms, while the third one emerged under explicit influence of functionalism. Key elements of the historic stylistics include: symmetry and division of the façade into three parts (bossage on the wall base, vertically articulated main part, finial), strong emphasis on the entrance portal, conspicuous cornices and decorations. In townhouses combining historic and functional forms, the prevailing stylistic elements include simple poles, lesenes (often worked in the plaster texture), enhanced with decorations (coats of arms, friezes, etc.). The ornamental-stylistic current typical of the ‘Krakow school’ comes in several different iterations. Few townhouses were explicitly influenced by the European functionalism. Designers aimed at simplifying the detail forms and their geometrization, producing an effect that revealed more deeply the functional content of the mass. The functionalist current in Krakow differed artistically from the avant-garde European projects. Nonetheless, it shared similar rationalist objectives – usability, economy and simplicity. Façade details often served as a link between contemporaneity and previous periods; they took account of features typical of the Krakow’s historic architecture.

1. Introduction
Details shape the surface of forms and can be structural in nature. If well designed, they enhance the definition and clarity of the form, reinforce its expressiveness and emphasize those elements that are formally important – “Successful details are not ornamentation. They neither distract our attention nor entertain, but rather facilitate the comprehension of the whole, and are intrinsic to its essence” [1]. Such aspects gained particular prominence during Modernism. Details also play an important role where various materials are combined, underlining the borderline between the interior and the exterior. While previous attempts were made to camouflage such spots, Modernism, with all its formal honesty, revealed them openly. Modernism thus exposed the detail that replaced what historically was an ornament. In that period building corners, portals and windows, as well as window and door woodwork, bars and balustrades were designed with great care and attention. Projects were carried out
using a rich array of materials – noble stucco, entrance door glazing, ceramic tiles in the interiors, etc. Often modernist details followed the state-of-the-art technological developments. In that period, designers have relished in references to the urban context by incorporating similar rhymes and materials. The rhythmic quality of details endowed architecture with a visual logic. Texture, as an element of the artistic record of modernist buildings, manifested itself in a macroscale as a grid of poles, beams, pilasters, openings, repeatable shapes or masses (structural texture) and in a microscale by the roughness of plaster, the smoothness of stone, the porosity of brick.

What details contribute to architecture is diversity, which creates the variable perception of the forms. They guide the observer’s eye and mind towards formally important spots; they emphasize the finial, the entrance to the building or other focal points justified by the architectural form or urban context (corners, turrets). The contrast between spatial forms of details and smooth surfaces of walls makes them more visually intriguing. Their artistic value and emotional impact can facilitate the memorisation and identification of buildings [2].

Details also define the scale of architectural forms, emphasize the depth and spatiality of their façades – they “determine the building’s formal rhythm, the subtlety of its scale” [1]. They bring architecture to a more human scale, enhancing it with individual features. Their scale is adjusted to the human size, enabling us to capture the form’s fragments in a single glance. Small details can be also appreciated by touch. Though detail development may seem secondary, they make an important part of architectural forms and urban structure, influencing its quality.

2. Research objective, methodology and purpose of the study
The aim of this paper is to present key features of façade details typical of townhouses erected in Krakow in the period 1918-1939. It emphasizes the importance of townhouse details for Krakow’s cultural heritage and the pressing need to document them [3]. Since the funds of the Social Committee for the Renovation of Krakow’s Monuments are allocated in first priority to overhauls of public utility buildings and registered monuments, modernist buildings have little if any chances for renovation. Meanwhile, they continue to fall into disrepair, which makes the documentation efforts even more urgent. Only a few, most precious buildings from the interwar period are listed in the register of monuments. The remaining ones are not awarded appropriate legal protection.

The corpus examined in the study consists of 120 of Krakow’s townhouses erected in the period 1918-1939 with notable façade details (representative examples for individual qualities of designers, inspiration sources, details that stand out from the others, the selection of forms and materials applied). The study comprised archive research, photographic documentation of selected objects (ca. 1,200 photographs) and comparative studies. Research concerning the 120 objects at the 5th Branch of the State Archive in Krakow unearthed information and plans for as many as 116 of them (in the case of 6 buildings no documents have survived; however, the authors of all the selected townhouses have been identified). The studied area of the city, located between the first and the second ‘ring road’, is developed with as many as 246 townhouses from the inter-war period, accounting for 16.9% of all houses built across various periods [4].

3. Details of townhouses in the period 1918-1939
In the interwar period, townhouse details had simplified forms. One important element for the articulation of façades of Krakow’s townhouses were the fenestration rhythms, relying on windows connected by a joint sill, horizontal framing or, alternatively, vertical stripes with multi-coloured inter-window spaces. Windows – openings arranged in rows on building façades were transformed into elements dividing planes. The extensions of their contours were used to be developed into striped or checked façade patterns. Unlike in earlier historical periods, when the so-called ‘standing windows’ could be found, in functionalism rectangular, or ‘recumbent’ windows were common. Sometimes they
were additionally emphasized by an expressive cornice, flat framing or balconies. Additional characteristic features included typical vertical arrangement of windows lightening the staircase (so-called ‘thermometer’ windows), vertically combined corner windows, portholes (bull’s eyes) and flag masts. The rhythm of the window and lesene axis was often regular, reflecting the internal structure of the building. The woodwork in modernist townhouses, always meticulously designed, also deserves to be mentioned, as it did away with traditional proportions and divisions (‘lying’ rectangles with sharply underlined horizontal divisions). Windows and doors were often filled with polished glass [5]. Additionally, façade openings were enhanced with bars, balcony balustrades and metal handles. Woodwork from that period can be described as spacious, with fairly thick, explicit divisions of similar size forming interesting chiaroscuro effects. A few asymmetrical woodwork designs (with a small ventilation window), harmoniously blended with the façade, can be also found. The window and door framing also evolved – unlike in the past, when such elements were added onto the surface and protruded from the wall, now they gradually moved inside the structure (negative formation, subtracting from the form). Architects designed shallow loggias or partially glazed balconies, adding plasticity to the façade and emphasizing the residential form (by contrast, previous designs were more utilitarian in nature due to lower intensity of communication measures used). The period is also marked by the appearance of full balustrades forming a sculptural, fluid element of the façade. The forms of corners and bay windows were rounded. Corner forms catching the light sometimes gained cubing forms (“angular piercingness”). In the first issue of “Architektura i Budownictwo” authors claimed that contemporary architecture brought about associations with technology that aimed at propelling a mass into the movement. This was the reason for emphasizing linearity and downplaying ornamental tendencies [6]. One typical feature of Krakow’s architecture involved customised designs of entry portals (Figure 1, 2, 3, 4). It was less popular to design an entry receding into the wall, creating the impression of the external space penetrating inside the townhouse (so-called anti-portals). Portals were frequently linked to other compositional elements – the adjacent windows or vertical lines of loggias, or the ‘thermometer’ type staircase window.

Figure 1. Townhouse at 24, Tomasz St. in Krakow, 2009

Figure 2. Townhouse at 43, Slowacki Av. in Krakow, 2009
Artistically original and innovative solutions include:

- a new form of the attic – resulting from the façade structure and incorporated into it (townhouse at 20, Słowackiego Av.); the top floor underscored by an expressive cornice (townhouse at 7-8, Inwalidów Sq.), gradual bend (townhouse at 50, Słowackiego Av.), a frieze made of brick (townhouse at 6, Inwalidów Sq.) or emphasized with a colour (townhouse at 15a, Słowackiego Av.);
- re-scaled details and ornaments – adjusted to new, larger roads from which townhouse façades were observed at a distance (from a car) (townhouses at 15, Słowackiego Av. and 6, Inwalidów Sq.);
- reference to tradition, but following the spirit of the modern times- simplified triple-cased windows referring to the casing and proportion of windows at the Wawel castle;
- a Polish variant of art déco forming the very essence of the Krakow school (Figure 5, 6) – details of crystal-like, zig-zag forms (the herring-bone pattern, zig-zag ornament), which created the town’s unique character, served as the markers of place and time (new interpretations of the folk culture, painting), triangular finishing of the arcades, crystal-like forms (bay windows, frieze) resulting from the arrangement of materials (townhouse at 6, Inwalidów Sq.); ambition to simplify forms rendering them geometric and thus revealing even more the functional content of the mass as well as the natural texture of materials; search for a compromise between the form defined by the construction and the use of simplified details (subtle subordination to the convention in force in architecture at that time); inspiration with European Expressionism (1923-1935) – emphasis on vertical and horizontal directions strengthening the dynamics of forms;
- curtain wall and a new way of designing the ground floor – large glazed spaces as an innovative approach to the dialogue with historic architecture reflected in a portion of the façade;
- in certain designs – inverted proportions between the walls and windows privileging the latter; transparency, large-surface glazing enabled by the development of technology (townhouse at 13, Lenartowicza St.); ‘mechanical’ multiplication of a single element, e.g. a window, a bay, a sgraffito field or even an entire floor (ground floor included); no size-wise distinction regarding the height (windows and floors) across levels as a sign of modernity [7] merging the façade composition into a single whole and creating the unity of its expression;
- fragmentation of the outline of the form (townhouses at 13, Lenartowicza St. and 8, Kolberg St.), search for the contrast between closed and open (glazed) space across the façade: anti-portals and glazed loggias, cantilevers above entrances converting portal structures into
balconies (townhouse at 10, Pomorska St.); terraces in the form of a characteristic façade detail (townhouse at 13, Lenartowicza St.).

What becomes more frequent in the modernist approach is to design a townhouse from the inside, ensuring unity of the wall and façade structure. The fragmented system of faults and avant-corpses on the façades often corresponded to the layout of the walls inside, ensuring better lightening and proportions of the internal units. At that time, the designers strove to underscore the dynamics of forms, revealing the vertical or horizontal internal layout on the outside. A wall stopped being a simple background for a relief-sculpture; in many designs, the structural and ornamental elements merged. Interestingly (townhouses at 4a and 6a, Batorego St.); also the differences between the ‘front’ and the ‘back’ faded, not only in terms of approach to the façades, but also to the design of the plane as such (influenced by German solutions, architects designed rooms facing the yard) [8]. The functions and the design of both façades – facing the street and the back yard – details included, merged. This trend was further amplified by the fact that the back yards, previously strictly private, now often gained a public function.

A list of features typical of modernist townhouses erected in the period 1918-1939 and their details have been summarised below:

- composition and mass - a compositional link between the exterior and the interior of the buildings; frequent symmetry of the frontal façade, but layouts with asymmetrically designed entrance portal are also common; sometimes asymmetry in architectural elements division (asymmetry of the plane reflected in the façade); discipline in terms of details; dynamic sections of the surface (eaves, bay windows, etc.), cylindrical corners, oval balconies, ovoid entry sides; prevalent simple mass, sometimes fragmented;
• façade - usually smooth, often with textured ground floor; surface enhanced with horizontal or vertical articulation (cantilevers, bay windows, lesenes, receded balconies in niches and on building corners, sub-window cornices, friezes above the ground floor and on the tops of the buildings, door and window framing, buttressing); differences between front and back often dissolved (visible in the manner of plane design); combination of old and new measures of artistic expression on a façade;

• detail and decoration - window framing typically levelled to the façade (or flat framing spanning several windows); ornaments, if present at all, emphasize key elements of the façade – for instance the entry portal, cornices at the top and above the ground level; rectangular windows and doors (their longer side often placed horizontally); ‘band-like’ windows transecting corners; a staircase extra lit due to a vertical glazed opening (‘thermometer’); individually designed portals;

• material - noble plaster (bush-hammered, combed), frequent use of a variety of materials to finish entrance portals, ground floors (brick, clinker brick, stone wall panels) or coats of arms (natural or artificial stone); monochromatic combinations (bright pastel colours) prevailed; the use of reinforced concrete in the structure (ceilings, roofs, stairs).

4. Results
Based on the analysis of the influences of a variety of trends on the development of Krakow’s townhouse façades in the period 1918-1939, three basic groups of façades were identified. The first one relied on the historic style (Figure 7, 8), the second, and most numerous one, combined historic and functionalist forms, while the third one emerged under explicit influence of functionalism (Figure 9, 10). Key elements of historic stylistics include: symmetry and division of the façade into three parts (bossage on the wall base, vertically articulated main part, finial), strong emphasis on the entrance portal, conspicuous cornices and decorations. In townhouses combining historic and functional forms, the prevailing stylistic elements include simple poles, lesenes (often worked in the plaster texture), enhanced with decorations (coats of arms, friezes, etc.). The ornamental-stylistic current typical of the ‘Krakow school’ comes in several different iterations. Few townhouses were explicitly influenced by European functionalism.
Figure 7. Townhouse at 17, Lea St. in Krakow, 2009

Figure 8. Townhouse at 17, Lea St. in Krakow, 2009

Figure 9. Townhouse at 7-8, Inwalidów Sq. in Krakow, 2009

Figure 10. Townhouse at 15 Słowacki Av. in Krakow, 2009
To sum up, the following results have been drawn:

- Krakow’s townhouses in the period 1918-1939 differ artistically from the avant-garde European structures (even though certain affinity to western currents can be identified, the buildings conserve distinct, local values), but they pursue similar rational goals – usability, economy of use and simplicity, through the perfection of the already available traditional forms;

- the townhouses that stand out from the rest are the product of the search for the new ways of shaping the façade planes and façade details, as well as the gradual simplification of forms reflecting the functional arrangement of the interiors; what becomes transparent is the pursuit of coherence between the practical and aesthetic aspects of the buildings; the front façade did not have the curtain quality neither in technical nor in compositional terms;

- townhouses evolved without losing their structural and architectural essence and maintained certain typical traditional elements, including details; their harmonious merger with their urban context was facilitated by the prevailing conservative attitude of inhabitants who were reluctant to accept change; designers continue to follow patterns developed across Krakow’s long history, thus creating a relatively consistent complex of quality townhouses;

- top townhouses are characterised by a combination of the good old composition rules followed in the past and contemporary functionally designed interiors offering technical amenities [9]; their façade compositions and preservation of height often helped buildings seamlessly blend into the urban tissue; the internal affinity between the distinctly new townhouses and older forms was preserved thanks to the use of the details – rather than copying them, the designers tried to ensure equally high quality of the old and the new;

- The modernism of the 1920s and 1930s was perceived as a movement which distanced itself from Historicism, but without breaking up with the past; the past stopped being an unavoidable obligation, but became a creative opportunity, ready to be individually seized – “the old-times form is only a fertile land”;

- the necessity to construct cheap architecture propelled simplifications, but without detriment to quality, both from functional and aesthetic perspectives; the financial limitations served as a springboard for new, economic detail forms.

5. Conclusions

The detailed analysis of 120 townhouses in the period 1918-1939 and the vast literature on the subject made it possible to attain the intended objective of the study – the identification of the typical features of Krakow townhouse façade details. The townhouse forms became more streamlined, partially inspired by European solutions (with only rare cases of framing construction), but often out of the financial necessity. Designers aimed at simplifying the detail forms and their geometrization, producing an effect that revealed more deeply the functional content of the mass. The functionalist current in Krakow differed artistically from the avant-garde European projects. Nonetheless, it shared similar rationalist objectives – usability, economy and simplicity.

Just like modern buildings erected in Warsaw, with their typical grey brick and prismatic forms, the white townhouses with open ground floors (anti-portals) in Gdynia, or the Streamline style-inspired projects in Łódź, details in Krakow’s townhouses have their own, distinct, individual quality. They testify to a continuum of place and time in which they were created, with clear links between the architectural projects spanning different epochs. In Krakow, the passage from Function follows Form to Form follows Function in a manner of shaping details was affected by a certain conservatism, continuation of the local tradition and creative approach to the foreign models.

To sum up, the study, the following final conclusions can be drawn:
• the design of the façade and the selection of details were characterised by a turn towards syncretism that aimed at synthetizing formal measures inherited from the past; old materials were used and models were reworked and redefined anew rather than copied;

• the category of novelty played an important role in designing the townhouse façades and their details; it sought inspiration from the previously unknown sources, now available thanks to the liberal artistic doctrine, the creative orientation of architects, the exchange of thoughts and experiences, as well as new materials and techniques;

• in the case of townhouses that stand out from other buildings, the façade details often served as a link between contemporaneity and previous periods; they took account of features typical of Krakow's historic architecture (rhythms, lines, direction, saturation with detail, material, similarity of shapes, etc.), symbolically extending and sealing new quarters with the old town; they were instrumental in the building aesthetic unity between the contemporary and historic spatial structures; similar artistic features of the façade design and materials typical of the old architectural styles (stone, brick, wood), along with the construction technique, formed natural integrating features; the preservation of scale and character of the development additionally fostered architectural blending;

• in a number of cases, the inspiration by the tradition was highly creative and involved extensive processing, abstracting or simplification of the original form and was clearly grounded in thorough knowledge of the architectural past; the continuity of tradition often manifested itself in the reflection “of the spirit of the modern epoch in forms acquired from the past” [10].

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