

ARCHITECTURAL STYLES OF THE HISTORICAL TENEMENTS IN BUDAPEST. BLUEPRINT OF AN ANALYSIS

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Abstract: *The historical tenement building activity in the Hungarian capital reached its peak around the turn of the 19th and 20th centuries, when, in a relatively short period, thousands of houses were built to meet tenant needs. These buildings, adorned with characteristic ornaments, are all unique; yet, they form a cityscape that is exceptional in size and has changed minimally in the past hundred and fifty years.*

The present study is part of a large-scale analysis aiming to define an architectural typology of the stock to support easier identification and understanding of their multi-faceted values, and to serve as a benchmark for future rehabilitation programs.

In this paper, a style terminology of the buildings is specified based on results from previous literature and extensive field studies surveys.

Keywords: *historicism, tenement, Budapest, typology, turn-of-the-century*

1. INTRODUCTION

Today's Budapest is best known for its outstanding artistic and engineering constructions, as well as its public and religious buildings; however, its dominant cityscape is undeniably defined by its historical residential stock.

The development of Pest-Buda (merged in 1873) during the 19th century is inseparable from the relatively continuous and rapid population growth, coupled with a constant shortage of housing. These factors acted as catalysts for mass historical tenement construction and also initiated the establishment of workers' colonies and the prefabricated housing estates that spread in the second half of the 20th century.

Throughout the 19th century, an increasing number of workers migrated from the countryside to the cities: those arriving here could not construct their own homes; therefore, wealthy investors offered rental housing to them. The spread of these tenements accelerated in the latter half of the century, with the peak of construction activity occurring between 1880 and 1910. The vast stock containing thousands of buildings that emerged during this period formed the characteristic image of Pest (the east side of the river Danube), which was just

evolving into a contemporary city metropolis. The building stock formed represents an architectural and historical value as an imprint of a prosperous period of Hungarian history.

Although all the buildings are unique from several points of view, there are certain common features: their geometry is shaped by the current building regulations in force, optimized between the largest possible rentable area required by the investor and the limitations of the plot.

The most common type is as follows: resulting from the closed-row system of the urban fabric, a four-winged building with an enclosed courtyard is built, where one wing faces the street, three wings are built around a courtyard, and they are connected to their neighbors by firewalls. It is unique to the Pest tenements to have a horizontal and vertical hierarchy of socio-economic status among residents, which is mirrored in the layout. The ground floor facing the street is primarily used for commercial or catering activities. Above this, the first floor is usually the ‘piano nobile,’ the main story, containing the largest flats. The upper levels and the courtyard wings contain smaller dwellings, usually without in-built bathrooms or toilets. The main entrance on the façade leads to the main staircase and the courtyard; apart from this, only a ‘servant staircase’ is built even in the larger houses. The courtyard flats open from the hanging corridors that circle the courtyard façades.

Although this is the most common form of the historical tenements, several other solutions were realized during their 150-year era.



Figure 1 Left: Streetscape of a tenement district in Pest

Since their heyday, the tenements have survived several changes of political systems, ideologies, war and reconstruction. Due to their durable structures and flexible spaces, they can accommodate diverse functions, which is continuously proved by numerous examples in the inner districts of Pest.

The perception of these houses was mixed even in their peak era. The contradiction between the ornate façade, the large, elegant apartments of the street front and the cramped units in the courtyard, were the subject of professional and social public discourse.

Consequently, after their peak period until World War II, they became buildings symbolizing the rule of the wealthy class over the vulnerable mass of tenants, tolerated at best.

Fortunately, their planned complete demolition did not come to pass, but the reconstruction methods after World War II sacrificed much architectural value worthy of preservation on the altar of necessity – and politics. At that time, it was common practice to destroy ornamentation, but the division of flats and co-rental system of multi-room apartments did not help the reputation of the tenements. Even the once flourishing term „Eclecticism” has become pejorative.

The lack of renovation and maintenance during the 20th century resulted in most of the stock declining into poor condition. Around the turn of the millennium, focusing on the cityscape and touristic advantages, the state of the inner districts of the capital, and through them the situation of apartment buildings, came to the fore.

The increasingly inevitable challenges of mass rehabilitation require professionally developed answers that can guide the preservation of architectural character and values.

2. METHODOLOGY AND SOURCES

Several high-quality books and studies have been published about tenement houses from some point of view, which we use as sources in the research, but as per our previous investigations, we concluded that no typological survey based on a complex field study was prepared about the tenement house stock in Pest.

Among the used literature sources, Zsuzsa Körner's gap-filling work should be highlighted, focusing on builders and investors, including apartment building types [1]; Anna Perczel's book on the values of the Jewish Quarter of Pest [2], Éva Lampel and Miklós Lampel's book on the rehabilitation of the past decades [3].

Several works of writing approach the tenement houses through an architect's personality, such as the excellent volume on the architecture of Miklós Ybl [4].

Another niche is Attila Déry's book series on Budapest architectural topography, which contains a large amount of archival data and other systematic information on the tenement housing stock [5, 6, 7, 8].

The study edited by Tamás Perényi and Zsófia Dankó, in cooperation with Budapest Technical University and expert authors, on the renewal and energy development of the historical urban fabric also summarizes the main characteristics of apartment buildings, and the focus is on the possible methods and financing possibilities of renovations [9].

The following works used for stylistic terminology according to the order of Figure 2 (their title has been translated to English here, however their original language is Hungarian, their Hungarian title is listed in the references):

László Gerő's *The architecture of Pest-Buda at the time of unification* [10] (the book not focused on architectural history, but on Budapest city, with numerous references to tenements); Ádám Pattantyús-Ábrahám: *Building rehabilitation* [11] (this volume is not fundamentally on architectural history either, but it deals specifically with structural aspects of tenement houses, thus included in the list); Jenő Rados: *Hungarian History of Architecture* [12]; Pál Ritoók: *Hungarian History of Architecture 5. Classicism, historicism* [13]; József Sisa: *Hungarian art in the 19th century. Architecture and Crafts* [14]; József Sisa, Dora Wieberson: *History of Hungary Architecture* [15]; Miklós Kalmár: *History of Architecture 7.*

[16]. Here, three types of periodization of European styles are introduced, the perception of the beginning, middle and end of the 20th century, thus showing an interesting perspective.

It is not mentioned in the table, but important sources for the Modern tenements are: András Ferkai's *The architecture of Pest between the two world wars* [17]; Nóra Pamer's *Hungarian architecture between the two world wars* [18]. In these volumes, the authors deal with the naming of stylistic currents, but do not assign specific years to periods.

According to the 1967/1 issue of the *Art History Bulletin*, professional researchers were also interested in the question of terminology, Zádor's keynote proposal [19] received numerous comments on the periodization of the 19th and 20th centuries with a new approach.

In this paper, we present our architectural and typological results using the above sources as foundation, but fine-tuned and optimized for the Pest tenements, based on data obtained through the mass survey and analysis of the tenement house stock.

The subject of tenements is extremely wide-ranging, even with the following necessary limitations:

In the book, we focus on apartment buildings built in dense urban tissue, in a closed-row system. Freestanding tenement villas and city palaces are not included, although these alone deserve a separate study, as do rural examples.

Surveys and case studies providing the basis of the research in Pest, with special emphasis on VI-VII-VIII. districts were made between 2015 and 2023, but examples from other areas can also be found in the volume.

The period under review has also been narrowed. The beginning is 1800, as the appearance of this type of tenements can be dated around the 1810s. With the rise of Socialist Realism followed by prefabrication, housing construction after World War II takes a completely different direction, and the construction of the historical tenements as type practically stops.

It has to be mentioned that the idea of tenements was not conceived in Budapest; it has a long line of architectural forerunners and also represented in the larger settlements of the Austro-Hungarian Monarchy (Vienna, Graz, Prague, Brno, Lviv, Timisoara and so on...). Our research however is specialized for the Pest tenements.

The research and presentation of the results are carried out from an architectural point of view, which naturally touches on art history, urban planning and other related professional topics, but we do not aim to discuss these disciplines in detail.

3. RESULTS: ARCHITECTURAL STYLE TERMINOLOGY

3.1. *Frequently used terms and their definitions*

One of the most important methods of categorizing buildings is grouping them into architectural styles. The system of styles, which is used today, was created at the peak period of tenement house construction, around the turn of the 19th and 20th centuries, when the need for the widespread use of the forms of the past comes to the fore.

According to the fashion of the age, buildings were historicizing in design (reusing the styles of the past as decoration), applied on contemporary construction practice. Master builders therefore had to have detailed knowledge of how to apply the characteristic forms and editorial principles of styles.

Thus, in architectural education, the study of different styles was of paramount importance. The apprentices learned morphological elements and their application in façade and floor plan systems by processing so-called pattern books and copying.

But what exactly does architectural style mean? There are several approaches, the direction we use in this research is the definition of Szentkirály and Détsy [20].

According to them, the style is formed by the sum of climatic and landscape conditions, available building materials, the system of society, the technical preparedness of society, local traditions and national characteristics, and the influence of the simultaneous or previous architecture of other areas.

Style is defined based on the collection of stylistic elements: mass shaping, space shaping, building materials, structures and morphological elements.

Although the architectural style seems an adequate method to define tenements, in the period from the 19th century onwards the boundaries between the styles are not as clearly defined as in the case of earlier periods. The Romanesque, Gothic, Renaissance and Baroque are well-defined groups. Although there were transitional periods and overlaps between them, they are fundamentally separate from each other both in time and character.

The currents of the 19th and 20th centuries are, however, characterized by a pluralism of styles, where we can see several reused architectural styles and even their mixture appearing on the buildings simultaneously.

The dominant trend during the period under review can best be defined by the name Historicism, in the simple meaning of the application of architectural forms of the past – in case of tenements, they are however applied as a ‘costume’ to contemporary floor plan systems and structures.

What is the architectural style of apartment buildings? How can we name the total of stylistic elements on a tenement building in Pest?

In defining the terminology of the styles of the period, researchers dealing with the history of Hungarian architecture express a number of different opinions.

In Figure 2, we attempted to compile a terminological timeline based on information from Hungarian historical volumes commonly used in architectural education.

The figure is not intended to list all periodizations of all researchers and contemporary authors. The most accessible works used in education today were processed for visualization purposes to illustrate the terminological problems of styles around the turn of the century.

In this book, we only examine the periods from 1800 to 1945, because this is the period relevant to tenement house construction.

Timelines are interrupted in several books marked with hiatus. The names and periods in the volumes are multifaceted – although they deal not only with tenement houses, in fact, the main focus is on public buildings.

In general, it can be said that most authors agree on the names of Neo-classicism and Romanticism, even if the beginning and end of the periods do not exactly coincide.

The period that follows is presented differently in most books. In several sources, we can see different forms of the term Historicism and Eclecticism (early, late, advanced...), even as synonyms for each other, but Neo-renaissance and Neo-baroque appear as subtypes. Art Nouveau, Art Deco, and the Turn-of-the-century also aim to describe a similar period, the latter perhaps more understandable to outline the mixture of styles.

About the interpretation of Historicism as an era of architectural history: as mentioned above, the word means to revive, reuse the styles of past eras. In this form, looking to the past, almost our entire history is based on historicization, since the history of architecture

describes repetitions with the repeated returns of earlier architectural solutions. Thus, we can even call the Renaissance a historicizing style, which revives the ancient Greek and Roman forms. If Historicism is used as an ‘umbrella-term’ concept, it implies that all styles, from Neo-classicism to Neo-baroque (which reappeared in the 1880’s and again after the First World War), can be included under this concept. Several authors use Historicism in this sense as well.

Another important and often divisive concept is Eclecticism as a term. During the 20th century, the word became almost pejorative in the crossfire of the aforementioned changes in political and social attitudes, and the term is also used to refer to brooding, sprawling and – untastefully – mixed ornaments.

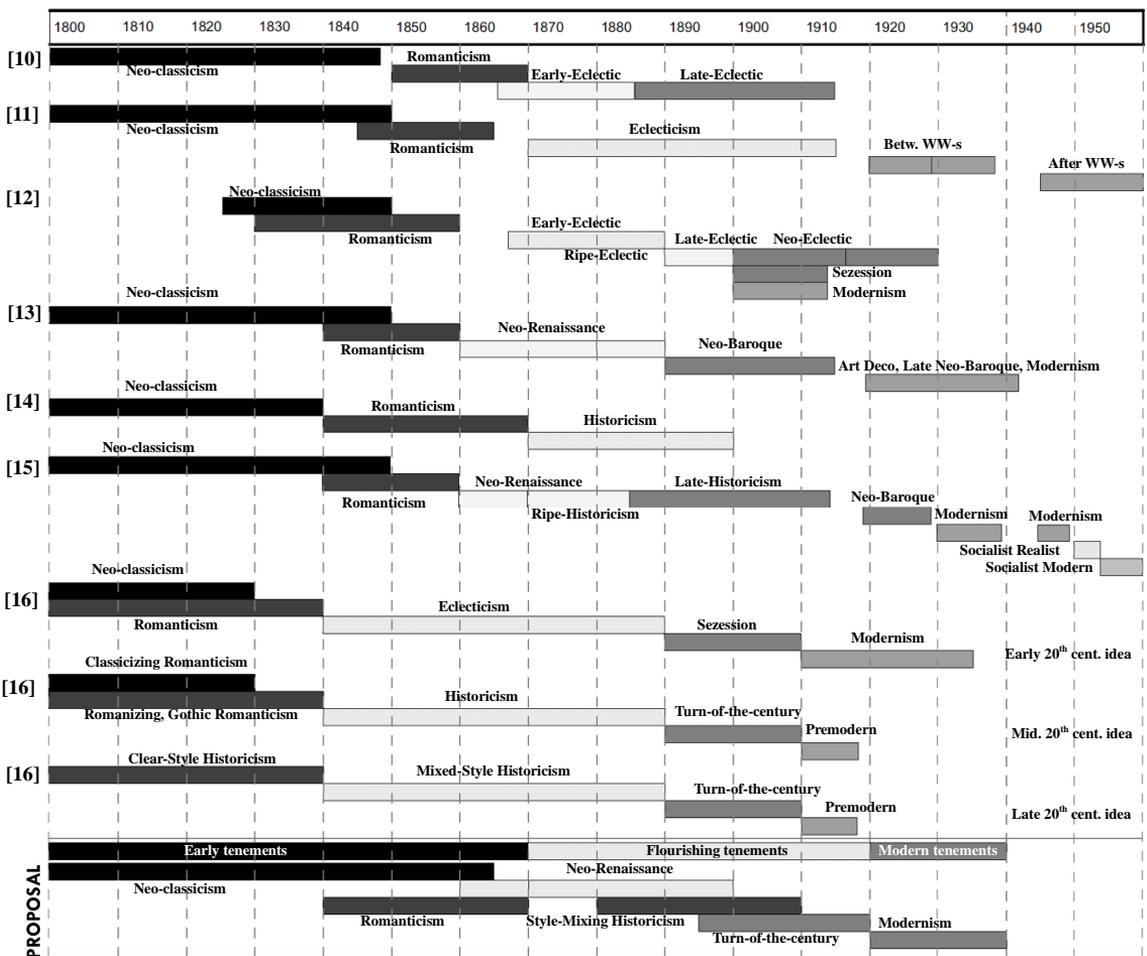


Figure 2 Various style periodization of the tenement era in the commonly used educational volumes. At the bottom, the proposed terminology and periods for the tenements of Pest. The books used for the table: [9-16]

3.2. Proposed terminology and timeline for tenements of Pest

Adding to the difficulties of categorization, the stylistic elements on historical tenements of Pest are appearing more muted, as the forming of body and space are severely limited by the closed-row system and the regulations in force, as well as the profit-maximizing approach of the investors. Mostly, the ornaments are the only aspects revealing the stylistic intentions.

The system of stylistic terms used hereby is the result of comparing the above literature research, and the field study including 2000 tenement buildings. In addition to Neo-classicism and Romanticism, we use the terms Neo-renaissance, Style-mixing historicism, Turn-of-the-century and Modern (See details in the following subsections).

We propose the following terminology and time intervals based on our surveys:

Early tenements (1800-1870)

- Neoclassical tenements (1800-1870)
- Romantic tenements (1840-1870)
- Transition to flourishing tenements: early neo-renaissance tenements: 1860-1870

Flourishing tenements (1870-1920)

- Neo-Renaissance tenements 1870-1900
- Style-mixing historicist tenements (mainly Renaissance and Baroque features mixed): 1880-1910
- Turn-of-the-century tenements: 1895-1920

Modern tenements (1920-1945)

The main differences of the timeline we have defined compared to the data in the volumes presented earlier are as follows:

We created three larger terms: Early, Flourishing and Modern tenements to encompass the major changes in structure and mass, refining the differences in ornamentation in sub-groups named as the corresponding stylistic terms.

In the case of relatively well-defined early style groups, such as Neo-classicism and Romanticism, the names have been adopted without change, but their period is longer in the case of tenement houses than indicated in the sources dealing with majorly public and ecclesiastic buildings. The reason for this difference may be found in the more conservative attitude of tenement house investors, where new architectural currents and the achievements of "high architecture" appear later in the public taste.

Romanticism runs parallel to Neo-classicism almost all the way through the period, representing a smaller-scale building stock in the mass Neo-classical examples.

In the 1860s a subtle transition between Neo-classicism and neo-Renaissance is appearing, with new approach of façade design incorporating Italian Renaissance ornaments.

Like many of our literature sources, we defined the borderline in 1870, as the boundary between early and flourishing tenements. After the Neo-renaissance tenements, the Style-mixing historicism appears, which two groups have a clear predominance compared to the others in the building stock of Pest. The latter term refers to the mixing of majorly Renaissance and Baroque features.

The influence of Art Nouveau and early Modern endeavors finally dissolving earlier design principles appear in the group of Turn-of-the-century. We find the term appropriate because only a miniscule fraction of tenement buildings can be clearly described as Art Nouveau (or Secession in the Austro-Hungarian Monarchy), while the majority are much

more characterized by the mixing of parallel currents of ornaments in a mass formation with fundamentally fixed geometry, still leaning towards Historicism.

The emergence of Modernism can be perceived from the end of the First World War in greater numbers.

Naturally, this periodization also denotes the typical periods where the vast majority of buildings were built. Buildings that can be classified in a particular category can also be found outside the timeline limits, but in negligible quantities. The boundaries are rounded to decades.

4. DISCUSSION: CHARACTERISTICS OF THE DEFINED GROUPS

3.1. *Early tenements (1800-1870)*

Early examples were constructed before the peak of tenement construction. Among the buildings preserved from the beginning of the era we can find quite small, one-story houses, but there are also larger examples with particularly sizable courtyards. The examples taller than one story from the earliest decades were often expanded later in the period, due to rapid development. The architectural plans of the 1860s already show several three-story buildings. Also, in multiple cases, an L or U-shaped layout plan was extended to enclosed courtyard shape. For the wings, typically the street front is two-tract and courtyard is single-tract.

The closing date of 1870 is marked because it the year of new building regulations on force that determine the shaping of the next era tenements. Also, the Compromise of 1867 (consolidation of political affairs, bringing about a prosperous evolution for Pest) was a major historical event, and we see a subtle transition in style taking place in the 60s, which is further supported by technical directives of the 1870 regulations.

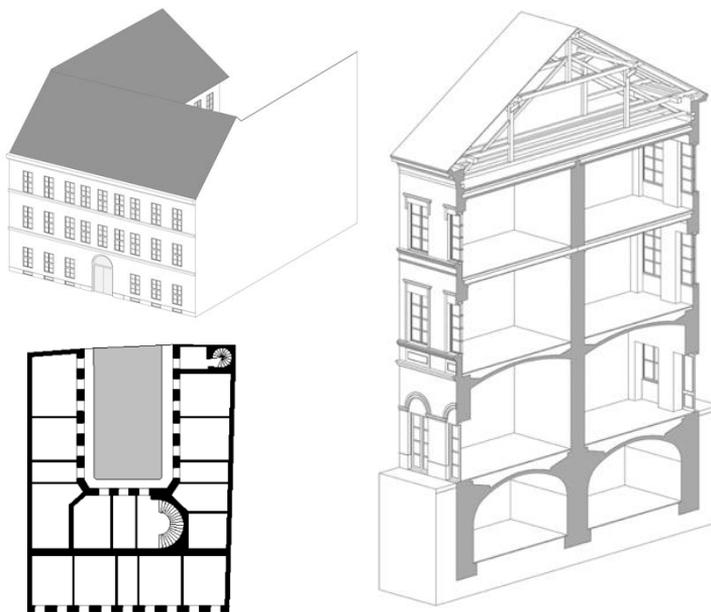


Figure 3 Example for geometry, layout and structures of the Early tenements of Pest

The period of early tenements can be divided into three phases that overlap in time:

- Neo-Classicist tenements (1800-1870) are characterized by simple, clear geometry, symmetry and balance. The main building structures at that time were stone-brick mixed masonry, a plank-case window opening on the outer surface of the façade, a vaulted slab on the lower level, and a beam or stud slab covered on the upper level. The roof is simple gable structure on the street front and half-gable on courtyard wings. The set of elements of ornamentation consists of forms borrowed from ancient Greek and Roman orders of columns. Accentuation of the central axis with risalite and columnar tympanum portico is common in more elegant houses.

- Transition to flourishing tenements: the early Neo-renaissance tenements (1860-1870) are representing a fine overlap between Neo-classical layout and structural design and Renaissance facades. The two styles being close relatives in ornaments, and they are well suited in architectural language, thus the transition into the newer style in the 1860s is characterized by the appearance of quadering, armouring, the more plastic framing of windows, and the spread of triangular tympanum eyebrow ledges.

- Romantic tenements (1840-1870): Romanticism can be characterized by the use of medieval and oriental ornamentation in general. During this period, Neo-classicism is the dominant style in tenement architecture, among which romantic examples appear in the relative monotony of the streetscape. The medieval nostalgia and ornamentation also corresponded to the public mood after the suppression of the revolution and war of independence of 1848-49, which brings about a reflection on the glorious past. The style can be divided into two subgroups based on the morphological elements displayed. One is semicircular Romanticism, where we see oriental, Byzantine influences, and the other is peak-arched, Gothic Romanticism. The layouts and structures behind the ornaments are practically the same as in the case of Neo-classicist tenements. As has been mentioned above, in the case of tenement houses, the difference between buildings of Neo-classicism and Romanticism is often only the subject of the details of the ornamentation.



Figure 4 Early tenement subtypes. From left to right: Neo-Classicism, Romanticism, Transitional

3.2. Flourishing tenements (1870 -1920)

The era of flourishing tenements stretches approximately from 1870 to 1920. The historical events connected are the aforementioned Compromise and the peace treaty ending the First World War

This period is the peak of the tenement construction wave, when the vast majority of the stock was built. The ever-increasing demand for rental apartments increased the share of small sized flats, crowded in the courtyard wings.

The architectural practice of this era was influenced by several factors:

More evolved building materials were spreading, which made it possible to build higher, slimmer structures with better load-bearing capacity, which also opens up a new freedom to mass formation.

At the beginning of the period, in the 1860s and 70s, the stone-brick mixed masonry is finally exchanged to pure brick walls. The box-style fenestration and the Prussian vault slab spread, which are to be the typical building structures of this era. The spread of hot-rolled steel beams support the easier design of slabs, balconies, bay-windows and hanging corridors, but also offers the possibility of dislodging the façade from the usual vertical plane.

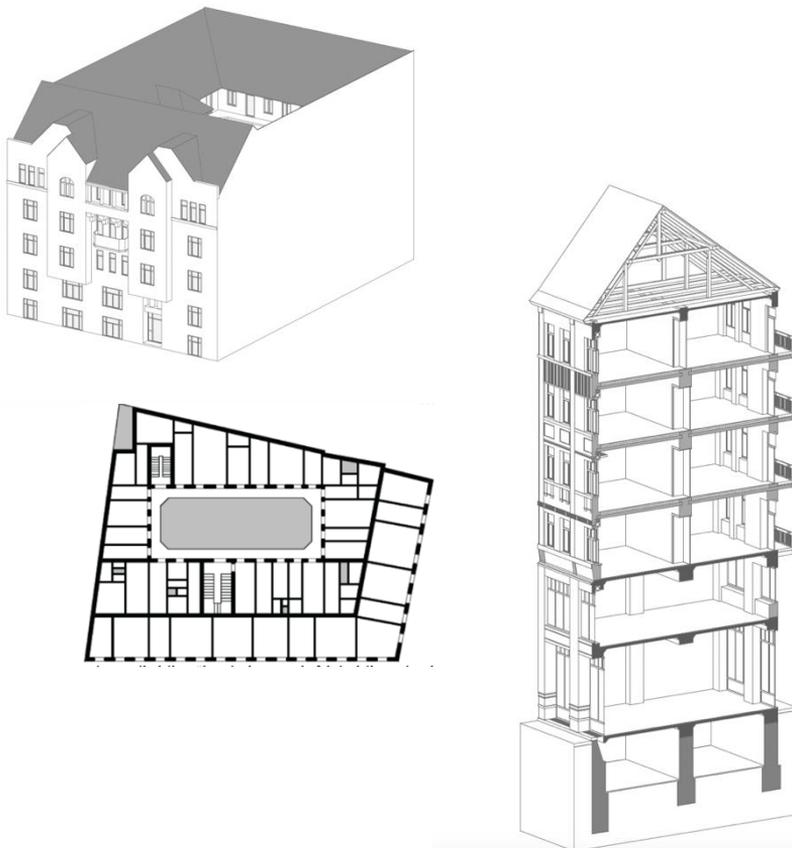


Figure 5 Example for geometry, layout and structures of the Flourishing tenements of Pest

In addition to modern building materials, changes in regulations also affect the construction: With the new regulations of 1870 and 1894, the minimum size of courtyards is set at 15-20% (of the plot area), which investors take advantage of to maximize the built-up area. In parallel, building heights increase, 4 floors are allowed to be built. The reproducible decorative elements are also broadening. The stucco ornaments made of plaster are accompanied by profile bricks and other prefabricated, 'off-the-shelf' decorative elements. These no longer have a structural role as their predecessors, thus can be freely applied to the façade, breaking from the previous structural logic.

After the turn of the century, the previously characteristic horizontal and vertical hierarchy in terms of flat sizes decreases and the demand for more uniform, modernized, comfortable apartments is on the rise. The framed layout of the plot is still the dominant solution, but the floor plans with quasi-streets, French courtyards open to the street appear, leading to the reduction of the hanging corridors and its subsequent disappearance.

The period of flourishing tenements can be divided into the following subgroups based on architectural character:

- Neo-Renaissance tenements (1870-1900): The success of the style in the construction of tenement houses was also due to the fact that, similarly to Neo-Classicism, the layout and façade design of the juxtaposition made it suitable for accommodating many functions [14]. A type of building designed specifically for rent is flourishing, where larger apartments can be found in the main street wing and smaller apartments in the courtyard. The earlier or smaller Neo-Renaissance houses, with their ground floor plus two floors, fit into the scheme of classical palace façades, but latter examples outgrow this pattern. The façades are increasingly becoming higher than wider, and the number of stories increases from three to four. Almost exclusively enclosed courtyard schemes are created, where the plot is built with four wings. By the last third of the 19th century, morphological elements were routinely used by designers and master builders of high quality. In the vast majority of Neo-Renaissance tenements in Pest, elements of the Italian Renaissance style appear; later, in the 1880s and 1890s, elements of the French and German Renaissance also emerge spotted.

- Style-mixing historicism (mainly Renaissance and Baroque features mixed, 1880-1910) shows the dissolution of the classic palace façade design. Although it has not yet moved on to the free-forming of Turn-of-the-century houses, there are already visible signs of this process. A rhizalite-like row of bay windows extends forward from the plane of the street façade with an arched, brick or hexagonal floor plan. Towers and other superstructures are common at the corners. From the perspective of building structure, regardless of the style of the external "cloth," the buildings are constructed with the same frameworks. In elegant houses, bathrooms and toilets are included, as well as central heating and ventilation systems, and elevators can be seen in more and more examples. By the end of the era, toilets are also installed in middle-bourgeois tenements. Both in proportion and detail – albeit still using a historicizing set of elements – façade design solutions begin to break out of the previous boundaries by moving the almost ossified Italian Renaissance streetscape, which is constantly repeating itself.



Figure 6 Flourishing tenement subtypes. From left to right: Neo-Renaissance, Style-mixing historicism, Bottom: Turn-of-the-century

- Turn-of-the-century tenements (1895-1920): Although the stock we call turn-of-the-century, appearing in the last years of the 19th century and developing parallel to the earlier groups, it breaks away from classical forms, thus forming a separate subtype. The emergence of the new design method also meant a breakaway from the prevailing Historicist style of Viennese – as well as international – architectural-artistic representation of the political-social conflicts. This style encompasses folk art, plant and geometric, Art Nouveau and early modern elements. At the same time, precisely because of the geometric, structural and functional constraints of the tenement as a type, the appearance of pure Art Nouveau, is rare. There are facades where they tried to adhere to the previous set of design rules as much as possible, cornices and column orders still appear, but these are no longer made strictly with classical Greek-Roman morphology. Due to the new possibilities provided by the building structures and materials, the façade steps out of its previous flat design. The proportion of doors and windows also changes, wider, near-square shapes appear. This is an extremely exciting era of tenement house construction, mostly from the point of view of façade construction. After almost boring repetition and juxtaposition of the classical design language, the facades almost breathe a sigh of relief with this new line. Although we can see many transitional examples where the designer - or the client - has not yet let go of uniform dividing ledges or Neo-baroque forms have been solved with Art Nouveau ornamentation, in the first decade of the 1900s many truly unique and creative façade designs are born. Structure and layout-wise, they are

similar to the style-mixing subtype: the hierarchical layout of the classic large apartment-small apartment can still be found, but more and more often we see more balanced floor plans, more identical apartments with balconies and full comforts, as well as clever solutions for lengthening street façades.: Forecourt, cour'd honneuros, quasi-street layouts are spreading. The combination of bay-windows and balconies uniting several levels moves the façade, the variety of forms.

The end of the era, with the First World War brought a reduction in construction activity to a minimum.

3.3. *Modern tenements (1920-1945)*

The tragic historical events of the First World War directly affecting the country, and their consequences had a long-lasting impact on society, the economy and, through them, construction activity, which opened a new era for tenement houses as well.

The 1920s were permeated by the shock of the Treaty of Trianon, aggravated by an economic and social crisis that only seemed to ease by the '30s. As a result of land losses, the construction industry, cut off from its former raw materials, was also facing a crisis.

The housing situation in Pest continued to deteriorate. The military returning home from the front, the population arriving from the annexed territories, the masses moving from the countryside to the capital exploded the housing shortage.

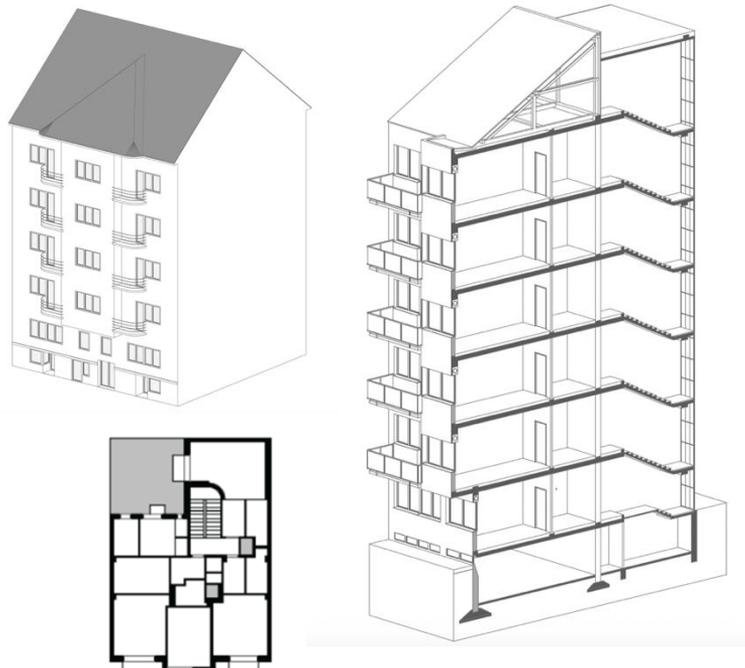


Figure 7 Example for geometry, layout and structures of the Modern tenements of Pest

The imprint of the above appears in architecture, so the time between the two World Wars can be divided into two main periods: the '20s are mostly conservative, while the first half of

the thirties and forties have a Modern approach. In his book Ferkai [17] explains a triangle for interpreting the currents and fashions that appear: at the vertices of the triangle appear three main poles, which are largely running parallel in architecture. These are the "conservative" (or historicizing), "modern" (including: international modern, rational, functionalist) and "popular" (i.e. pre-war national movement, popular movement that emerged in the 30s). Imagining that buildings are located on this triangle, closer or farther from a pole, the mixtures of currents can be easily perceived. Of the three styles (poles), Historicist and Modern elements and their mixing are common on tenements, Folkish elements appear rarely.

It has to be noted here, that there were very early and distinctive proto-modern ideas around from 1910, which stopped during the WW1.

The reappearance of Historicizing elements offers a kind of retrospective into the heroic past, but due to the need for representation, being popular with certain investors or architects who find it more difficult to accept Modernism. Neo-baroque, Neo-classical, but also Medieval elements appear on the facades.

The Modernist layout is characterized by simple cubes, connected row of windows, horizontal but large openings. Ideally, although it is limited in the case of tenements, architects think in terms of planning from the inside out, where a good floor plan is prepared first and they do not want to squeeze the functionally bad floor plan behind the beautifully designed façade.

Art Deco appears as the transition between the Historicist and Modern currents, of which we can also distinguish subtypes: distorted Historicizing forms are characteristic of the Neo-baroque direction, while in other examples Art Nouveau, Baroque and classicizing forms appear mixed and stylized. In the Expressionist-cubist direction, geometric patterns, zigzags and lines appear in the set of elements.



Figure 8 Examples for Modern tenements

Changes in regulations also affect the shaping of buildings.

The urban planning of Budapest reinforces the 1933 building code in 1937 (coming into force later in 1940) and makes block-frame construction, previously rewarded only with tax incentives, mandatory in certain areas. Thus, the courtyard wings with small, unhealthy

apartments disappear. Buildings with backyards overlooking the common block interior are formed, the depth of layouts increases to 12-15 meters, forming the three-tract floor plan. In the middle tract, which does not receive sunlight directly, the 'hall' is formed, used mostly for dining.

The floor-heights decrease, so the number of elevations increase and buildings of 6-7 floors with flat roofs are also approved. Sun exposure and ventilation are important in the apartments, bathrooms are now standard everywhere (in 1932 only 54% of Budapest apartments were built with bathrooms, in '34 this was 95%) [18].

Healthier, albeit smaller-sized dwellings are formed. The apartments now have mostly the same layout on each floor, the former horizontal and vertical separation disappears. Studios are also proliferating. This uniformity is also manifested on the façade, vertically the levels most often do not differ. Balconies and French balconies are also decisive formal elements of façade formation. Flat-roofed apartments appear with roof terraces. Built-in furniture is widespread, especially in the kitchen.

The block-frame installation largely made the use of hanging corridors unnecessary (which was later forbidden by the regulations), the apartments can now be accessed from internal staircases, from an internal corridor.

With the development of structures, buildings with reinforced concrete frames – ceramic frame filling walls are becoming widespread.

In the Modern style, the previously familiar ornaments disappear. Window framing is eliminated, along with horizontal sills and vertical dividers. In the transitional stylistic directions, appliqué-like ornaments appear, which are mostly rooted in Art Nouveau and Art Deco forms, but the facades are mostly plain plastered and covered with stone.

In elegant houses, the path leads from the stone-paved vestibules to the staircase, by elevator, where the elements are designed in a uniform decorative spirit from the railing to the doorknob.

5. CONCLUSION

The historical tenements of Pest are one of the major historical heritages of the Hungarian capital. Spanning over 12 km², being a uniquely large, homogeneous stock in Europe. Their large-scale rehabilitation requires a high-level, complex benchmark and national-level regulation, to avoid the loss of architectural character, which is already happening in the case of unprofessional interventions (exchanging windows without professional consultation, one-by-one, application of engineering systems on the facades , etc).

The registration and proper assessment of values should be supported by wide-range, large scale research, as is the aim of present project.

As part of the architectural typology under progress, we have proposed a new, encompassing style terminology for the tenements of Pest, as well as introduced their detailed description.

Today, there are only a few remaining Neo-classical and Romantic examples in the sea of Neo-Renaissance and Style-mixing historicist stock, which requires a highlighted focus in heritage protection. Also, the Turn-of-the-century stock with its impressive innovative intent in design, as well as the Modernist group's new approach on housing are a valuable history of architecture legacy, presently less protected than should be.

The tenement, as a general type has been changing continuously, reacting to changes in regulations, structural evolution, political and historical events as well as change in expectations regarding a new form of living.

ACKNOWLEDGMENTS

The 2D and 3D images of tenements were created by András Horkai PhD, Dávid Krakomperger and Anna Erhardt, to whom I express my heartfelt gratitude for the support of this research. Façade photos are provided by Viktória Szabó.

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