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262-279 **MARK MIŠČEVIĆ**
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AN OVERVIEW OF LISTED SUMMER RESIDENCES AND VILLAS IN ZAGREB

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FIG. 1 COMPARATIVE DISPLAY OF RECENT EXTERIOR PHOTOGRAPHS OF SELECTED RESEARCHED BUILDINGS FROM DIFFERENT HISTORICAL STYLISTIC PERIODS (FROM LEFT TO RIGHT):
 1ST HISTORICAL-STYLE PERIOD: SUMMER RESIDENCE TKALČIĆ, SUMMER RESIDENCE VESELJAK, SUMMER RESIDENCE VILLA OLGA
 2ND HISTORICAL-STYLE PERIOD: NASTA ROJC SUMMER RESIDENCE, CITY VILLA VRBANIĆ, HOUSE ŠENOVA
 3RD HISTORICAL-STYLE PERIOD: VILLA MEIXNER, VILLA PFLÜGER, VILLA ALEXANDER



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AN OVERVIEW OF LISTED SUMMER RESIDENCES AND VILLAS IN ZAGREB

CULTURAL HERITAGE

LISTED BUILDING

SUMMER RESIDENCE

VILLA

ZAGREB

The goal of the research was to establish a complete overview of summer residences, villas and (family) houses in Zagreb, exclusively on the basis of listing criteria. 60 listed buildings were identified, all located in the northern part of Zagreb, on the southern slopes of Medvednica. The paper provides a review of listed building locations, authors, time of construction, historical stylistic classification, analysis of the pertaining listing documentation and literature review. Summer residences for an occasional stay were built during the 18th and 19th century in secluded hilly locations surrounded by vineyards

and orchards. In the 20th century, the construction of summer residences decreased, while the construction of villas for permanent residence begins forming elite residential parts of the city. With a transition from a semi-rural to a semi-urban context, accompanied by the disappearance of the term summer residence and the introduction of the terms villa and (family) house, the stylistic transition from historicism to functionalism and modern architecture is evident. Three main historical-stylistic periods have been recognized and all the researched buildings have been classified accordingly.

INTRODUCTION

RESEARCH SUBJECT

In the city of Zagreb, there are 60 free-standing buildings originally intended for residential purposes¹, designed for one family, with the status of a listed building (Table I).² In listing documentation and in literature, they are identified as summer residences, villas, houses and (family) houses³, depending on the time when they were built and how they were used. They are located in the northern, hilly part of Zagreb (Fig. 2), on the southern slopes of *Medvednica (Zagrebacka gora)*. The entry in the Register of listed buildings of the Republic of Croatia is from the period between 2002 and 2017.⁴

Listed buildings built during the 18th and 19th century in secluded hilly locations with views of the city were mostly called summer residences. They were more often intended for an occasional summer stay than for permanent residence. The oldest summer residences have features of late baroque and classicism, most of them have historicist design (predominantly Neo-Renaissance) or reinterpret elements of traditional architecture. In the 20th century the construction of summer residences for occasional stays decreased, while the construction of villas, almost exclusively for permanent residence, begun. The construction of villas formed elite residential parts of the city that were up to then areas of vineyards and orchards with low urban den-

sity. The first construction that indicated this change, as determined by Aleksander Laslo, was Villa Tišov, from 1900 designed by Aladar Baranyai.

At the same time, with a transition from a semi-rural to a semi-urban context, which was accompanied by the disappearance of the term summer residence and the introduction of the term villa, i.e. (family) house, the stylistic transition from historicism to functionalism and modern architecture took place. At the beginning of the 20th century, romantic ideas and historicist design weakened, and the influence of Art Nouveau⁵, Secession⁶, and the English Arts&Crafts⁷ and Domestic Revival⁸ movements got stronger. In the 1930s villas were designed following the New Building tendencies. New Building (Ger. *Neues Bauen*, Cro. *ново граđenje*) is a term used to designate modern tendencies in architecture in Germany and German-speaking countries in the 1920s and 1930s (Kahle, 2016). Among Zagreb's villas at that time, apart from villas designed in an international style, houses that reinterpret elements of traditional architecture and that are built using local materials can be also found.

In the second half of the 20th century, the construction of villas decreased, because of the change in the social organization and the focus of socialist government structures on accommodating a huge number of immigrants in Zagreb. As a result, planned construction of large housing developments begun (including the construction of New Zagreb).

Building on the southern slopes of Medvednica got intensified in the 1990s and early 2000s, but with a high density of construction without master plans and without a suitable transport and communal infrastructure. As a consequence an excessive density of construction, absence of urban planning standards and the disappearance of the previously picturesque cultural landscape are evident.

¹ With the exception of the Semi-Detached House Belaj, designed by Stjepan Planic for one owner, and Summer Residence Wutte, which is a semi-detached house.

² The term listed building stands for a building for which the Ministry of Culture and Media – Directorate for the Protection of Cultural Heritage issued a listing decision. Note: the status of a listed building is not permanent, it can be revoked, and new listing decisions can be made for buildings that have not been listed so far. The data provided in the article correspond to the data on the listing of the Ministry of Culture and Media for July 2023.

³ Translations and original terms used in the article: summer residence (Cro. *ljetnikovac*), villa (Cro. *vila*), house (Cro. *kuća*) and family house (Cro. *obiteljska kuća*).

⁴ Article 120, paragraph 3 of the Act on the Protection and Preservation of Cultural Property prescribes

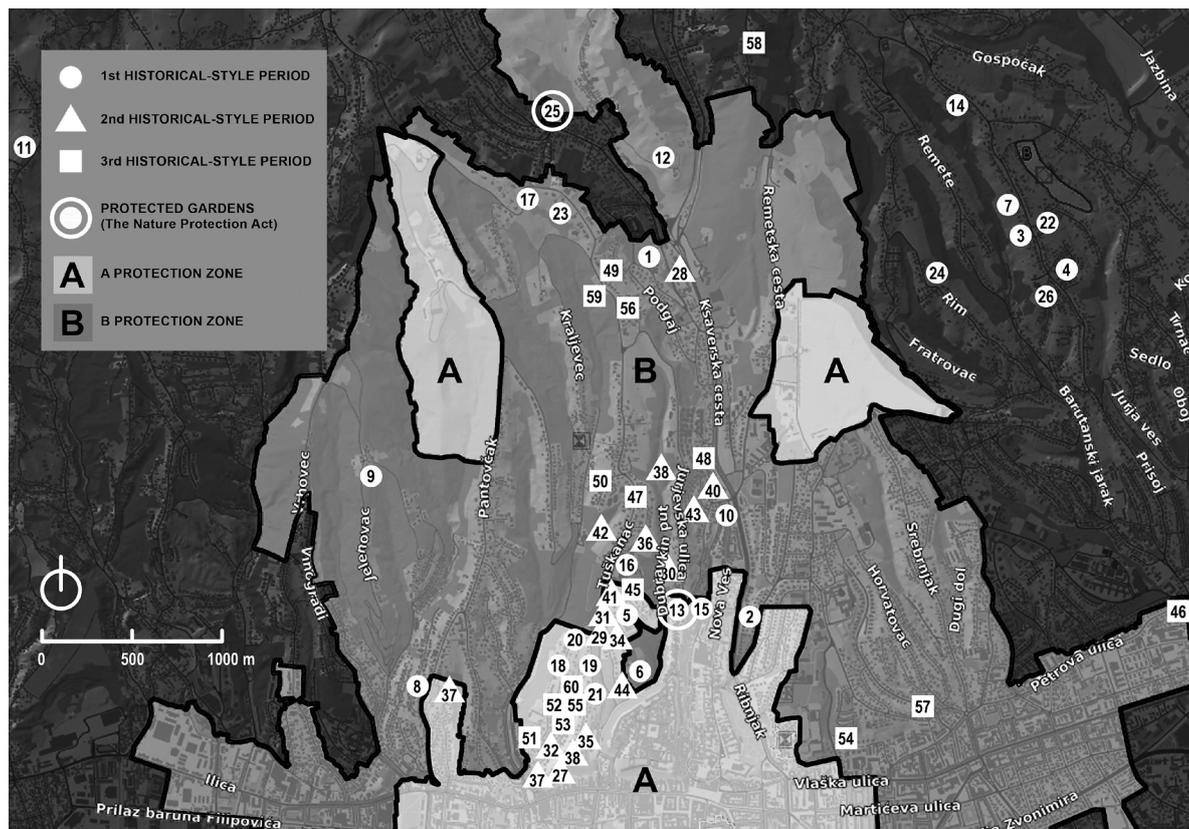


FIG. 2 CARTOGRAPHIC REPRESENTATION OF THE RESEARCHED BUILDINGS

the obligation of the competent Ministry of Culture and Media to harmonize the registration of cultural monuments with the regulations that were valid until the entry into force of the new Law with the provisions of that Law. The status of listed building has been granted to some of the researched buildings since the 1960s.

5 A style of decorative art, architecture and design prominent in Western Europe and the US from about 1890 until the First World War and characterized by intricate linear designs and flowing curves based on natural forms. Source: <https://www.oxfordreference.com/display/10.1093/oi/authority.20110803095427152>

6 Vienna Secession was formed in 1897 in opposition to the exclusion of foreign artists from exhibitions of the Viennese Academy. Led by the artist Gustav Klimt, its first President, members of the group included the designer and architect Josef Hoffmann, Kolomon Moser and Josef Maria Olbrich. Source: <https://www.oxfordreference.com/display/10.1093/oi/authority.20110803115719100>

7 An English decorative arts movement of the second half of the 19th century which sought to revive the ideal of craftsmanship in an age of increasing mechanization and mass production. William Morris was its most prominent member. Source: <https://www.oxfordreference.com/display/10.1093/oi/authority.20110803095426201>

8 A 19th century architectural style, born of the Gothic Revival, which involved a revival of many traditional vernacular motifs in English architecture such as timber-framing, tall chimneys, and leaded lights. Source: <https://www.oxfordreference.com/display/10.1093/oi/authority.20110803095725752>

RESEARCH GOAL

The researched buildings in this paper have so far been analyzed selectively, exclusively according to the criterion of architectural quality, and never systematically according to the listing criterion.

The main contribution of this article pertains to the fact that for the first time only listed summer residences, villas and (family) houses were typologically identified among all listed buildings in Zagreb. The goal of the conducted research was to establish a complete overview of all listed summer residences, villas and (family) houses exclusively on the basis of the listing criterion, regardless of their current building condition, purpose, architectural quality etc.

The complete overview provides a review of listed building locations (including a cartographic representation), authors, time of construction, historical stylistic classification, analysis of the listing documentation and literature review.

The results of this research shall be the starting point for further research aimed at determining architectural characteristics and the current building condition of each of the 60 researched buildings, as well as determining

TABLE I LIST OF LISTED SUMMER RESIDENCES, VILLAS AND (FAMILY) HOUSES IN ZAGREB

Label	Building	Year (time) of construction	Author	Address in Zagreb	Cultural property label
1st Historical-Style Period: from 1736 to mostly the end of the 19th century (26 out of 60 buildings – 43.3%) – Baroque, Historicism and Cottage Style Architecture					
1	Villa Mallin	1736-37	Matija Leonhart	Naumovac 12	Z-0696 NN 63/03
2	Zidanica, Bishop Josip Galjuf's summer residence	around 1780	unknown	Nike Grskovića 23	Z-0497 NN 18/03
3	Summer residence Vrhovac	end of the 18 th / beginning of the 19 th century	unknown	Bukovačka Road 245	Z-2954 NN 23/07
4	Summer residence Bukovačka cesta 220	19 th century	unknown	Bukovačka Road 220	Z-2281 NN 5/06
5	Villa Dolnji Jakčin	first half of the 19 th century	unknown	Jabukovac 5	Z-0727 NN 63/03
6	House Kresić	first half of the 19 th century; extension in 1904.	unknown ("Hönigsberg and Deutsch")	Dubravkin put 3	Z-1321 NN 22/04
7	Summer residence Heinzel	middle of the 19 th century	unknown	Bukovačka Road 267	Z-0685 NN 63/03
8	Summer residence Pantovčak	middle of the 19 th century; extensions	unknown ("Aranjos i Popovic")	Hercegovačka Street 81	Z-0729 NN 63/03
9	Summer residence Andrijević	middle of the 19 th century; extension in 1914	unknown	Jelenovac 44	Z-0726 NN 63/03
10	Summer residence of Bishop Aleksandar Alagović	in 1828	Bartol Felbinger	Nova Ves 86	Z-0489 NN 18/03
11	Villa Pongratz	in 1868	Franjo Klein	Mikulčić 133	Z-2581 NN 124/06
12	Villa Okrugljak	in 1875	Janko Jambrisak	Okrugljak 6	Z-0499 NN 18/03
13	Villa Živković-Lubienski	1880-81	Kuno Waidmann (Felix Florschütz)	Jurjevska 27	Z-0196 NN 151/02
14	Summer residence Veseljak	in 1882	unknown	Bukovačka Road 341	Z-0686 NN 63/03
15	House Mlinarich	end of the 18 th / beginning of the 19 th century; extension in 1883	unknown	Jurjevska 32	Z-1063 NN 2/04
16	Summer residence Werner	19 th century; additions in 1889; 1910	("Hönigsberg and Deutsch")	Tuškanac 36	Z-1328 NN 22/04
17	Summer residence Sollar	extension in 1889	Kuno Waidmann	Gornje Prekrižje 75	Z-1318 NN 120/12
18	Summer residence Šafranek-Wiesner	in 1889; extension in 1900	"Šafranek and Wiesner"	Vladimira Nazora 55	Z-1325 NN 22/04
19	Summer residence Grbac	in 1889; additions in 1899; 1906-07	Leo Hönigsberg (Gjuro Carnelutti)	Ivana Gorana Kovačića 33	Z-1323 NN 22/04
20	Villa Ehrlich-Maric	1890-91; extension in 1928	Herman Ehrlich, Mijo Geher, ("Benedik and Baranyai")	Ivana Gorana Kovačića 37	Z-2953 NN 23/07
21	Kuno Waidmann's summer residence	in 1893	Kuno Waidmann	Ivana Gorana Kovačića 17	Z-1322 NN 22/04
22	Summer residence Tkalcic	in 1894	"Šafranek and Wiesner"	Bukovačka Road 254	Z-0684 NN 63/03
23	Summer residence Vidric	in 1895	Ferdinand Kondrat	Gornje Prekrižje 51	Z-1317 NN 22/04
24	Summer residence Villa Olga	in 1898	Martin Pilar	Rim 84	Z-0695 NN 63/03
25	Villa Leustek	in 1920	Albin Leustek	Mlinovi 72	Z-0692 NN 58/07
26	Summer residence Štos	in 1935	unknown	Bukovečki krč II. 1 (Bukovečki krč 6)	Z-0687 NN 63/03

TABLE I CONTINUED

Label	Building	Year (time) of construction	Author	Address in Zagreb	Cultural property label
2nd Historical-Style Period: 1904-1929 (18 out of 60 buildings – 30%) – Proto-Modern Architecture – Secession, Arts&Crafts, Domestic Revival					
27	Villa Auer	in 1904; 1905-06	Viktor Kovačić	Rokova 9	Z-2132 NN 109/05
28	Villa Kallina	1906-07; addition in 1930	Vjekoslav Bastl	Matije Jandrica 68	Z-2155 NN 109/05
29	Villa Benedik	1909-11	Aladar Baranyai	Tuskanac 14	Z-2958 NN 23/07
30	Villa Feller	1909-11; extension in 1923; adaptation in 1959	Mathias Feller, Otto Goldscheider	Jurjevska 31-31a	Z-0660 NN 63/03
31	Villa Baranyai	1909-10	Aladar Baranyai	Tuskanac 18	Z-2140 NN 109/05
32	Nasta Rojc summer residence	in 1910	“Kalda and Štefan”	Vladimira Nazora 26	Z-1064 NN 2/04
33	Villa Frangeš	1910-11	Viktor Kovačić	Rokov perivoj 2	Z-0653 NN 63/03
34	Villa Paskievic-Čikara	1910-11	Aladar Baranyai	Tuskanac 10/ Krležin gvozd 2	Z-2394 NN 28/06
35	City Villa Vrbanić	1911-1912	Viktor Kovačić (addition in 1929 “Pollak and Bornstein”, extension in 1938 Juraj Denzler)	Ivana Gorana Kovacica 2	Z-0661 NN 63/03
36	Villa Čepulic	in 1914	Viktor Kovačić	Jurjevska 63a	Z-5536 NN 86/12
37	Villa Ilić	1918-20	Aladar Baranyai	Paunovac 7	Z-2153 NN 109/05
38	House Frölich	in 1919	Viktor Kovačić	Bosanska 54	Z-0728 NN 63/03
39	House Deutsch	in 1920	Hugo Ehrlich	Rokov perivoj 8	Z-1326 NN 22/04
40	Summer residence Wutte	in 1923	unknown assumption: Stjepan Wutte	Mlinarska Road 53	Z-0654 NN 58/07
41	Villa Hühn	assumption: in 1924	Aladar Baranyai	Tuskanac 24	Z-5216 NN 54/12
42	House Nikić	in 1927	Hugo Ehrlich	Tuskanac 15	Z-1327 NN 22/04
43	House Šenoa	1928-29	Čiril Metod Iveković	Ive Mallina 27	Z-0730 NN 63/03
44	Villa Rein	1928-29	Rudolf Lubynski	Krležin gvozd 23 / Dubravkin put 1	Z-1062 NN 2/04
3rd Historical-Style Period: 1931-1947 (16 out of 60 buildings – 26.7%) – Modern Architecture					
45	Villa Radan	1931-1932	Vladimir Šterk	Jabukovac 39	Z-5215 NN 54/12
46	Villa Matica	in 1932	Antun Ulrich	Petrova 161	Z-7007 NN 28/18
47	Villa Botteri	1932-33	Frane Cota	Tuskanac 54a	Z-0655 NN 63/03
48	Villa Meixner	in 1933	Alfred Albini	Ive Mallina 14	Z-5679 NN 120/12
49	House Fuhrmann	in 1935	Stjepan Planić	Gornje Prekrižje 30	Z-0689 NN 63/03
50	House Kreneis-Horvat	1931-36	Lavoslav Horvat	Vijenac 6	Z-5676 NN 120/12
51	Villa Kraus	1936-37	Ernest Weissmann	Vladimira Nazora 29	Z-2145 NN 109/05
52	Semi-detached house Belaj	1936-37	Stjepan Planić	Vladimira Nazora 54-54a	Z-5495 NN 86/12
53	House Blazeković	1936-37	Drago Ibler	Zamenhofova 1	Z-1061 NN 2/04
54	Villa Deutsch	in 1937	Frane Cota	Vončinina 20	Z-2136 NN 109/05
55	Villa Cuvaj	in 1937	Stjepan Planić	Zamenhofova 17	Z-6097 NN 156/13
56	Villa Alexander	in 1937	Hinko Bauer	Gornje Prekrižje 12	Z-1056 NN 2/04
57	Villa Kopista	1937-38	Mladen Kauzlaric	Stjepana Babonica 25	Z-5213 NN 54/12
58	House Schwartz (with garden)	in 1943	Ivan Vitić	Remetski kamenjak 18 (28)	Z-0694 NN 63/03
59	Villa Pflüger	1942-44	Stjepan Planić	Gornje Prekrižje 21	Z-5369 NN 54/12
60	Villa Pajkuric	1941-47	Drago Ibler	Vladimira Nazora 64	Z-5570 NN 86/12

Notes:

- The year (time) of construction and the authorship are listed exclusively according to the data from the listing decision of the Ministry of Culture and media.
- The authors of historical additions and renovations are listed in parentheses.
- “NN” is the abbreviation for “*Narodne novine*” (lit. “The People’s Newspaper”), the official gazette of the Republic of Croatia.

their original and current purpose. Furthermore, an important aspect of the research will be the analysis of the changes in the urban planning context from the time when listed buildings were built up to the present day. An analysis of the renovations carried out so far will serve as a basis for the establishment of criteria for the valorization of renovations.

This paper presents the results of the first author's initial research that is a part of the ongoing research focused on the topic of establishing the criteria and models for the renovation and modernization of listed summer residences, villas and (family) houses in Zagreb, with potential in wider application.

CURRENT FINDINGS – LITERATURE ANALYSIS

Listed summer residences, villas and (family) houses in Zagreb can be found in published works (literature) dealing with the recognition and systematization of significant architectural achievements in the city and in literature related to historical and stylistic periods, such as “Architectural guide – individual housing in Zagreb from 1900 to 1940” (Laslo, 1984b), “Architectural guide – Zagreb 1898-2010” (Laslo, 2011b), “Architectural Atlas” (Damjanović, 2014), “Anthological architectural guide of Zagreb” (Žunić, Karač, 2018), “Croatian modern architecture between the two wars” (Premerl, 2015), “Zagreb, the city of modern architecture – a century of Zagreb architecture” (Premerl, 2002) and the monograph “Modern Architecture in Croatia in the 1930s” (Radović Mahečić, 2007).

The paper “Zagreb summer residences of the second half of the 19th century” by Lelja Dobronić, published in the same author's book “Builders and Construction of Zagreb in the Age of Historical Styles” (Dobronić, 1983), provides the first list of slightly more than 50 summer residences in Zagreb.

Aleksander Laslo focused on the history of Croatian architecture at the end of the 19th and beginning of the 20th century, discussing the acceptance and development of new architectural types, spatial, constructive and design features. In his papers, such as “Adolf Loos and Croatian architecture” (Laslo, 1991), “The architecture of modern civic Zagreb” (Laslo, 1995), “Faces of modernity 1898-1918: Zagreb architecture of the Secession era” (Laslo, 2003) and “Scenography for Poirot: the framework of the picture of time. A sketch for a construct about interwar construction on Croatian territory” (Laslo, 2011a) Laslo writes about proto-modernism, secession and the interwar period, with a special focus on residential architecture.

Listed buildings are covered in more detail in professional and scientific articles, graduate

and doctoral theses. Alan Braun and Alenka Delić analyzed the historical and spatial development of the historicist summer residence Grbac (Braun, Delić, 2013). Tamara Bjažić Klarin is the author of the conservation study for the Villa Ehrlich (Bjažić Klarin, 2021). Some protected summer residences, villas and family houses in Zagreb are covered in monographs dedicated to their authors. Monographs have been dedicated to two buildings – Villa Franges on Rokov Perivoj (Gazivoda, 2008) and Villa Živković-Adrowski-Lubienski (Damjanović, 2016).

In the scientific master's thesis “Zagreb Summer Residences from the End of the 18th to the Beginning of the 20th century” (Mestrovic, 2010), the historical and spatial development of summer residences was analyzed on the basis of archival research and historical maps. Mirna Mestrovic recorded 96 summer residences in Zagreb (existing, demolished or unfinished) and determined their condition at that time.

Zrinka Paladino discussed eight listed (family) houses and villas in Zagreb, elaborating their historical and architectural value and listing criteria (Paladino, 2011) and drew attention to the current condition of some of those buildings in her book “Zagreb – *antivodić*” (Paladino, 2017).

MATERIALS AND METHODS

BROADER SPATIAL, HISTORICAL AND ARCHITECTURAL CONTEXT

Most of Zagreb's summer residences were built simultaneously with the beginnings of the strong urbanization of the city of Zagreb⁹, from 1865, when the First Master Plan of the city¹⁰ was made, up to the beginning of the First World War, in 1914. After the earthquake in Zagreb in 1880, the Second Master Plan

⁹ More details: Knežević, 2019.

¹⁰ *Prva regulatorna osnova grada Zagreba*.

¹¹ *Druga regulatorna osnova grada Zagreba*.

¹² The Lower Town was planned as a large expansion of two medieval urban cores, Gradec and Kaptol, based on the First Master Plan of the City of Zagreb from 1865 and Second Master Plan of the City of Zagreb from 1887-1889, which was created under the leadership of the city's chief urban planner, Milan Lenuci (1849-1924). More details: Knežević, 1996.

¹³ The ensemble of garden squares is also called “Lenuci's Horseshoe” in recognition of Milan Lenuci, who, as the chief city engineer and urban planner, was responsible for the creation of the Second Master Plan of the city, in which the “Green Horseshoe” was completely outlined for the first time.

¹⁴ Plans for Jurjevska street from Mlinarska cesta to Cmrok (1906), Tuškanac from Josipovac to Cmrok and Cmrok (1907), Hercegovacka street with the eastern slope (1911), Josipovac, today Vladimir Nazor street (1906), plan of Mallinova street (1912), the road on

(1887-1889)¹¹ was made, enabling the expansion and modernization of the city, especially the construction of the Lower Town as a revival of the ideal Central European city of the second half of the 19th century.¹² A recognizable motif of Lower Town is a series of seven garden squares (parks) and one public garden (botanical garden) in the shape of the letter U, known as the “Green Horseshoe”.¹³

The establishment of the Club of Engineers and Architects in 1878 greatly improved the process of designing and constructing buildings, both in the Lower Town and on the southern slopes of Medvednica north of it. Following that, in the 1870s and 1880s, the early historicist expression (predominantly Neo-Renaissance) prevailed in the construction of buildings. The most important representatives were Janko Nikola Grahor and Franjo Klein and Viennese professor Friedrich von Schmidt. Schmidt’s student Herman Bollé came to Zagreb in 1879 and introduced Neo-Gothic and Neo-Romanesque styles, and at the end of the 1880s, a new generation of local architects such as Leo Hönigsberg and Julije Deutsch came after their studies in Vienna, introducing elements of late historicism – Neo-Baroque (Damjanović, 2014: 15-20)

From 1905 to 1915, master plans were made for summer residence areas.¹⁴ Regulations for the construction of summer residences were also adopted – Regulations for the Construction of Buildings on Josipovac (1888), Regulations for the Open Construction Method (1904) and Regulations for the Construction of Summer Residence Areas of the City of Zagreb (1911) (Mestrovic, Obad Šćitaroci, 2011: 117-119).

In Zagreb, Secession emerged at the beginning of the 20th century. The most important representatives were architects Aladar Ba-

ranyai, Vjekoslav Bastl, Ignjat Fischer and Rudolf Lubynski.

In 1900, under the influence of events in Vienna, Viktor Kovacic published a text in the magazine *Život* with the same title as Wagner’s most important book, *Modern Architecture*, criticizing the historicist architecture and announcing modern architecture (Damjanović, 2020: 33).

Since the mid-1920s, most architects of that time had started simplifying and gradually removing decorations on the facades, leading to a modernist understanding of architecture. The transformation of the House Feller (“Elsa Fluid”) on the main square in Zagreb, in 1928, according to the design by Peter Behrens, can be considered an inauguration of modern architecture in Zagreb (Damjanović, 2014: 25-26). At the end of the 1920s and during the 1930s, planned workers’ housing settlements were designed and built¹⁵, preceding the construction of an ensemble of rental villas in Novakova Street¹⁶ and the construction of modernist villas (Premierl, 2002: 37-45). The master plan from 1940 envisaged the expansion of the city southward to the Sava River. In 1940, Building Regulations for the City of Zagreb came into force, repealing all previous building regulations (Mestrovic, 2010: 15-16).

In such an urban, architectural and social context summer residences, villas and (family) houses, which are the subject of this research, were designed and built in Zagreb.

CONCEPTUAL DEFINITION

An analysis of the documentation on the listing¹⁷ of the researched buildings resulted in an inability to make an accurate typological and historical stylistic classification based on the names of the listed buildings.

Four terms are used for buildings in the listing documents – *summer residence*¹⁸ (Cro. *ljetnikovac*), *villa* (Cro. *vila*), *house* (Cro. *kuća*) and *family house* (Cro. *obiteljska kuća*). Most of the buildings that are called *summer residences*, according to their urban and architectural features, as well as the time of their construction, actually correspond to the summer residence type. Some buildings, and even the oldest summer residence on the list of researched buildings¹⁹, are called *villas* although according to their characteristics they correspond to summer residences. The unclear criteria are best evidenced in the case of the building that is listed under the name *Summer Residence Villa Olga*. It is not possible to determine a clear boundary between the terms *summer residence*, *villa*, *house* and *family house*, that is, it is not possible to

Tuskanac (1915) and others. Source: Mestrovic, 2010: 8-10.

¹⁵ Settlement of the First Croatian Savings Bank, Settlement of Istrians and the Disabled and Gogolj Hill. The Railway Colony in Maksimir was outlined in the Master Plan as early as 1923, and built in 1927. Details: Radović, 1992.

¹⁶ The architectural ensemble of city villas in Novakova Street (1931-1941) is protected cultural property as a whole.

¹⁷ Listing decision of the Ministry of Culture and Media of the Republic of Croatia (Directorate for the Protection of Cultural Heritage).

¹⁸ The English term *summer house* or *summerhouse* refers to smaller vacation homes, which are in the Croatian language colloquially called weekend houses (Cro. “*vikendica*”). Term *summer residence* is used to translate Croatian term “*ljetnikovac*”, which stands for larger and luxurious houses for occasional stay.

¹⁹ Jesuit summer residence built in 1736-1737 is called “Villa Mallin” in listing documents.

identify the differences in urban and architectural features and the time of construction between these three types. The term *house* under which family houses and multi-apartment buildings are listed in Zagreb is especially vaguely defined.

The analysis of the original documentation on the listing of the researched buildings has revealed that 18 buildings bear the name *summer residence*, 29 buildings are designated as *villa* (Villa Vrbanić as *city villa*), seven buildings are termed *house*, three buildings are termed *family house*, one building is called *residential house* and one *semi-detached house*, while Villa Frölich is marked as a *building in Zagreb*. The name *villa – family house* is used in the listing documents only for Villa Kraus and Villa Baranyai.

In the second half of the 19th century, the term *summer residence*²⁰ was used simultaneously with the term *villa* and meant building for vacation outside the city (predominantly for summertime), while residential buildings in the same period were called *residential houses*. In the 20th century, with the appearance of Zagreb's modern architecture, the construction of summer residences in secluded locations surrounded by orchards, vineyards and forest decreased, and denser construction begun. At the same time, the construction of buildings for permanent residence started, forming elite residential zones. The mentioned process follows the disappearance of the term *summer residence*, while the terms *villa* and (*family*) *house* are still used today (Meštrović, 2010: 5-6).

METHOD AND SCOPE OF RESEARCH

The research includes all detached (or semi-detached) listed summer residences, villas and (family) houses in Zagreb (60 buildings). The original listing decisions (not available online), the online Gallery of listed buildings of the City of Zagreb and the online Geoportal of the Zagreb Spatial Data Infrastructure (ZG Geoportal) were²¹ used as a source of data on listed buildings.

All researched buildings are located in the northern, hilly part of the city (or at the foot of the hills) and are predominantly grouped into urban units (Fig. 2). The first unit consists of buildings in Vladimir Nazor Street, Ivan Goran Kovačić Street, Jabukovac and Tuškanac. The second unit, consisting of summer residences and villas in Jurjevska Street, Gornje Prekrižje and Mlinovi, is connected spatially to the first unit. The third spatial unit consist of summer residences on Bukovačka Road. In addition to the mentioned streets, the above-mentioned units also include smaller neighboring streets, and there are also several listed buildings lo-

cated apart from the mentioned urban units (Mikulići, Vončinina Street, Petrova Street...). The northernmost researched building is located in Remetski Kamenjak Street (Remete), the southernmost in Rokova Street (*Rokov perivoj*), the easternmost in Petrova Street, and the westernmost in Mikulići.

The research did not cover listed buildings designed as multi-apartment buildings, listed buildings that are part of listed public gardens or listed terraced houses.²²

The historical part of Novakova Street ensemble from the period between the two world wars is not included in the research, since rental villas were predominantly built there, with less family houses, which are the focus of the research.²³ Furthermore, Novakova Street has already been analyzed as a whole in scientific works.

Listed workers' housing settlements from the 1920s and 1930s²⁴ are not included in the research because they are planned social housing settlements in the lowland part of the city, and not individual high-standard residential buildings, which were successively built in the foothills of Medvednica.

RESEARCH RESULTS

LISTED SUMMER RESIDENCES, VILLAS AND (FAMILY) HOUSES IN ZAGREB

Most of the buildings are located within the Protected Historic Urban Ensemble of the City of Zagreb. There are 25 buildings under protection in Zone A, 26 buildings in Zone B, while 9 buildings are outside zones A and B (Fig. 2).²⁵ Gardens are listed with 11 buildings, as an indivisible part of a summer residence, villa or (family) house.²⁶ Only in two buildings the interiors are additionally protected by a special act.

Listed interiors are 1) *Built-in interior equipment of the City Villa Vrbanić, with a separate*

²⁰ Synonyms for summer residence in the Zagreb area were *ljetnik*, *letnik* i *ljetiste*. More details: Meštrović, 2010.

²¹ <http://www1.zagreb.hr/galerijakd.nsf>; <https://geoportal.zagreb.hr>

²² For example: part of a street, for instance in Tkalčeva Street, in Gornji Grad; buildings within protected urban or park units or complexes (eg. Cvjetno naselje, Novakova Street, summer residences inside Park Maksimir, etc.).

²³ The renovation and modernization of Novakova Street should be analyzed by looking into urban design and architecture simultaneously, and not observing only the level of individual buildings.

²⁴ For example: *Cvjetno naselje*, Settlement of the First Croatian Savings Bank, Settlement of Istrians and the Disabled, Railway Colony, Pupin's Settlement and Gogolj Hill.

part of the apartment of Dr. Rudi Supek and Vesna Kolaric-Kisur Supek, and 2) a separate part of the interior with built-in equipment, built-in artistic paintings and reliefs in the central part of the ground floor and on the first floor of the City Villa Feller.

For the three buildings, the listing documents also mention their additional features – a residential house with a two-story tower in Zagreb (House Kresic), the summer residence “Veseljak” with a garden gazebo, and Villa Feller with a garden, a one-story house and a ground-floor courtyard building.

The Nature Protection Act protects two gardens that have the status of monuments of park architecture in addition to listed buildings – these are the garden at Jurjevska Street 27 next to Villa Živkovic-Lubienski and Leustek's Park in Mlinovi 72 next to Villa Leustek. The same law protects the coast redwood tree (*Sequoia sempervirens*) in the courtyard of Villa Ilic.

HISTORICAL-STYLISTIC CLASSIFICATION

The historical stylistic classification was made on the basis of listing documentation, literature and field tours. For each building, the description given in the listing decision, explaining the characteristics of the buildings for which listing had been decided, was analyzed. By analyzing the time of construction of each building and its main exterior architectural features (size and shape of the building, facade ornamentation, shape of the roof, etc.), as well as by researching biographical data and authorial approaches of individual authors (in the case of known authorship), three main historical-stylistic periods have been identified. The starting year of each of the three historical stylistic periods is determined by the researched building with the earliest year of construction (with the characteristics of that period), while the final year is determined by the latest constructed re-

searched building with the characteristics of that period. An exception appears in the first historical stylistic period, which mostly finishes with the end of the 19th century, but which, according to architectural features, also includes two cottage style houses, which were built much later.²⁷

• **1st Historical-Style Period: from 1736 mostly to the end of the 19th century** (26 out of 60 buildings – 43.3%) – Baroque, Classicism, Historicism and Cottage Style Architecture

Almost half of the researched buildings (26 out of 60) were built in the first period of construction of summer residences in Zagreb, which began in the 18th century and spanned the entire 19th century, with a few exceptions in the first third of the 20th century. The first summer residences were built as early as in the middle of the 18th century, with features of late baroque and classicism, and the last listed summer residence on the list of researched buildings was built in 1935. In that period, the following authors²⁸ of the buildings were identified: Gjuro Carnelutti, Bartol Felbinger, Mijo Geher, Leo Hönigsberg and Julije Deutsch (“Hönigsberg and Deutsch”), Janko Jambrišak, Lav Kalda and Ivan Štefan (“Kalda and Štefan”), Franjo Klein, Ferdinand Kondrat, Matija Leonhart, Albin Leustek, Martin Pilar, Vjekoslav Šafranek and Robert Wiesner (“Šafranek and Wiesner”) and Kuno Waidmann. Authors of 10 summer residences are unknown.

The construction of summer residences in Zagreb intensified after the adoption of the Building Order in 1857 and the earthquake of 1880. In the course of drafting the Second Master Plan of Zagreb, in 1888, regulations were passed for the construction of buildings on Josipovac²⁹, and as a result, the first and only settlement of summer residences was built, the so-called cottage house settlement in Zagreb, specific for the prohibition of the construction of any farm buildings, although this was customary for Zagreb's summer residences (Braun, Delić, 2013: 58-59) exemplified by the Summer residence Grbac located on Josipovac (Fig. 3).

Architect Kuno Waidmann was the greatest proponent of the modern idea of a settlement made of modern buildings surrounded by landscaped gardens. According to the advice of Izidor Krsnjavi, he tried to create a specific Croatian architectural style, combining elements of the so-called Swiss houses with motifs from the traditional rural architecture of Slavonia and Srijem (Damjanović, 2014: 284).

In addition to the area of Josipovac, the area of Bukovačka Road stands out, as there are six listed historicist summer residences there, while the rest of the listed summer residenc-



FIG. 3 SUMMER RESIDENCE GRBAC: YEAR OF CONSTRUCTION 1889; ADDITIONS IN 1899; 1906-07; AUTHOR LEO HÖNIGSBERG (AUTHOR OF ADDITIONS GJURO CARNELUTTI), ADDRESS IVANA GORANA KOVAČIĆA 33. AUTHOR OF RENOVATION DESIGN: ALAN BRAUN, M.ARCH, PH.D.

²⁵ Protection zone “A” is an area with complete conservation protection of historical structures, and protection zone “B” is an area with partial protection of historical structures.

²⁶ The gardens are protected as part of the architectural ensemble with the following listed buildings: Schwartz House, Villa Kallina, Villa Baranyai, Villa Feller, Villa Rein, Villa Leustek, Summer Residence Grbac, Summer Residence Vidric, Summer Residence Sollar, Kuno Waidmann Summer Residence and Summer Residence Villa Olga.

²⁷ Villa Leustek built in 1920 and Summer Residence Stos built in 1935.

²⁸ Authors are listed in alphabetical order by surname. If the listed building has two authors, the surname of the first author is considered.

²⁹ Josipovac – the area of today's Ivan Goran Kovačić Street and Vladimir Nazor Street.

FIG. 4 SUMMER RESIDENCE VRHOVAC, END OF THE 18TH / BEGINNING OF THE 19TH CENTURY, ADDRESS BUKOVAČKA ROAD 245



FIG. 5 VILLA ŽIVKOVIĆ-LUBIENSKI, TIME OF CONSTRUCTION 1880-81, AUTHOR KUNO WAIDMANN, ADDRESS JURJEVSKA 27



es from that era are “scattered” on the hilly parts of Zagreb, without the possibility to classify them into clear spatial units. Summer residence Vrhovac (Fig. 4) is one of the six listed historicist summer residences located on Bukovačka Road.

Stylistically, buildings in the first period can be further divided into historicist buildings of urban character³⁰ (dominated by Neo-Renaissance) and buildings shaped by reinterpretations of traditional and rural architecture.³¹ An obvious instance of Neo-Renaissance architecture is Villa Živković-Lubienski (Fig. 5). There are also buildings whose design combines both aforementioned principles.³² Motifs of vernacular architecture (pitched roof, stone and wood as materials, division into base and superstructure) will be present throughout the proto-modern and modern architecture periods.

Construction continued even after the creation of the Second Master Plan of Zagreb (1889) and Regulations for the Open Construction Method (1904). A series of urban regulations of the streets in the hilly part of the city was made, and in 1911 Regulations for the Construction of Summer Residence areas of the city of Zagreb were adopted. With the construction of the street network, the hilly parts of the city became more accessible by traffic, with more and more houses built for permanent residence, and less and less summer residences or buildings for temporary residence.

The master plan from 1937 (General Regulatory Plan for the City of Zagreb) allowed for the construction of summer residences, but after 1937 only two buildings were built that can be designated as summer residences (Meštrović, Obad Šćitaroci, 2014 : 7-8).

• **2nd Historical-Style Period: 1904-1929** (18 out of 60 buildings – 30%) – Proto-Modern Architecture – Art Nouveau, Secession, Arts & Crafts, Domestic Revival

In the first three decades of the 20th century, when various architectural stylistic expressions of the proto-modern architecture emerged, as predecessors of modern architecture, 18 buildings were designed and constructed, approximately one third of the researched buildings. The following authors of buildings from that period have been identified: Aladar Baranyai (“Benedik and Baranyai”), Vjekoslav Bastl, Mathias Feller and Otto Goldscheider, Viktor Kovacic and Hugo Ehrlich (“Kovacic and Ehrlich”), Rudolf Lubynski (Fig. 6) and Ćiril Metod Iveković. Out of the 18 proto-modern architecture listed buildings, most villas were designed by Viktor Kovacic and Aladar Baranyai, 5 villas each.

At the beginning of the 20th century, those two architects – Viktor Kovacic³³ (“Kovacic and Ehrlich³⁴”) and Aladar Baranyai³⁵ – dominated as the authors of residential architecture buildings of Tuskanac, Rokov perivoj and Ivan Goran Kovacic Street.

It is a time of different influences and a gradual transition from historicist architecture to modern architecture. Idyllic summer residences that are designed in cottage style, historicist neo-baroque or neo-renaissance summer residences or historicist houses that

³⁰ For example: Villa Živković-Lubienski, Villa Ehrlich-Maric.

³¹ For example: Villa Olga Summer Residence, Villa Leustek, Stos Summer Residence.

³² For example: Summer Residence Werner.

³³ More details: Viktor Kovacic – life and work (Begović, 2003).

³⁴ More details: Architect Ehrlich (Domljan, 1979).

³⁵ More details: Aladar Baranyai and the civic ideal (Laslo, 1984a).



FIG. 6 VILLA REIN, TIME OF CONSTRUCTION 1928-29, AUTHOR RUDOLF LUBYSKI, ADDRESS KRLEŽIN GVOZD 23 / DUBRAVKIN PUT 1



FIG. 7 SUMMER RESIDENCE WUTTE, YEAR OF CONSTRUCTION 1923, AUTHOR UNKNOWN, ASSUMPTION: STJEPAN WUTTE, ADDRESS MLINARSKA ROAD 53

resemble medieval castles started disappearing, and foreign influences of Art Nouveau became stronger. Interpretations of Art Nouveau, Secession, Arts&Crafts and Domestic Revival movements are evident on the researched buildings, although realizations with classicist elements are still noticeable. In this period, the traditional begun clashing with the modern, ornamentation and pitched roofs were still present, while the flat roof and modern architecture were not yet visible, as exemplified by the Summer residence Wutte (Fig. 7).

Viktor Kovačić³⁶ is responsible for the establishment of the artist's colony on Rokov Perivoj with the realizations of Villa Franęes and Villa Auer. At the same time, Benedik & Baranyai bought and parceled out the former *Donji Jakćin* estate (plots on the eastern side of today's Tuškanac Street) and built their own residences.³⁷ In addition to the aforementioned architects Kovačić and Baranyai, one of the programmatic villas in the affirmation of the newly founded Club of Croatian Architects was Villa Kallina by architect Vjekoslav Bastl, whereby influences of Croatian traditional architecture can be found (Gazivoda, 2008: 300-318).

In the context of the aforementioned influence of Domestic Revival on modern architecture in Zagreb, it is interesting to note that in Croatian literature there is not much mention

of the theory of Nikolaus Pevsner, for whom the roots of modern architecture can be found in Domestic Revival, in anti-classicism, asymmetry, the principle of designing from the inside out³⁸, the use of traditional materials such as bricks, etc.

• **3rd Historical-Style Period: 1931-1947** (16 out of 60 buildings – 26.7%) – Modern Architecture – New Building, International Style

The phrase “modern architecture” in this paper stands for architecture of New Building and International Style, while the architecture of the first two decades of the 20th century is divided into a separate period called proto-modern architecture. Looking at the formal characteristics exclusively, it can be said that the period of modern architecture is characterized by the complete abolition of ornaments on the facades, while the proto-modern architecture still retains the ornamentation, although to a lesser extent.

Even if there are several definitions of the period of modern architecture and several names by which it is designated (Modern architecture, New Building, International style), it can be concluded that modern architecture developed as a consequence of three phenomena that architects were faced with in the late 19th century:

- 1) Dissatisfaction with the continued use of decorative elements from different architectural periods and styles that had no relation to the building's functions and interior spatial concept.
- 2) The economic need for quick and inexpensive construction of a large number of buildings in a society undergoing industrialization.
- 3) The development of new building technologies and materials – use of steel, reinforced concrete and glass.

³⁶ More details: Viktor Kovačić – promoter of Croatian modern architecture (Laslo and Radović Maheć, 1997).

³⁷ They build residences at today's addresses Tuškanac 14 and 18, with variations on the stretch from Gvozd to Jabukovac (Tuškanac 4, 10 and 20).

³⁸ The facade is organized according to the interior and not according to aesthetic principles, in more detail: Pevsner, 1990.

These three phenomena encouraged the search for an honest, economical, and utilitarian architecture that would use the new materials and building technologies, satisfy the growing society's building needs, and at the same time bring a new aesthetic quality.³⁹

According to Aleksander Laslo, *New Building* (Ger. *Neues Bauen*, Cro. *novo građenje*) was the close of a three-decade long process of a quest for an expression that would be suitable for the modern age. The *New Building* was not immediately accepted neither by the public opinion nor by the politics. It took two years to popularize the new architecture and ensure its public recognition. Efforts of architects through public engagement, mostly via presenting architectural and urban planning competitions and domestic and foreign built projects in newspaper and journal articles and exhibitions, resulted in the architectural boom of the *New Building* in 1931. The main reason for the general acceptance of *New Building* was the reduction of construction and maintenance costs, as a consequence of simple aesthetics (Bjazić Klarin, 2008).

In the original idea of modern architecture, formal characteristics of buildings were conceived entirely as a consequence of the functional concept of the building. However, the built projects often only imitated the exterior appearance of modernist buildings and began perceiving modern architecture as a trend (Harambašić, 1931). This actually created a new style, which modern architecture essentially wanted to avoid.

The confirmation of this thesis is also the *syn-agma International Style*, first used in 1932⁴⁰ by Henry-Russell Hitchcock and Philip Johnson. The emphasis on formal properties overwhelmed concern for functional considerations that were crucial to European architects (Lampugnani, 1986). For example, according to architect Hugo Ehrlich, Peter Behrens's renovation of Bastl's Feller house ("Elsa Fluid") on the main square in Zagreb was only a formal and morphological exhibit of the *New Building*, but in reality it was contrary to its essence. The façade of the existing building was renovated and was given a new external appearance, but interventions in the interior of the building were neglected. The façade was treated as a sculpture, without establishing any relation with the construction logic of the building itself (Bjazić Klarin, 2008).

The design of modern villas in Zagreb was meant to follow Le Corbusier's five points of modern (new) architecture⁴¹ as much as possible, but it is evident that built villas from Zagreb rarely had large stripped windows or slender columns, nor were they built in full reinforced concrete or steel skeleton. Za-

greb's modern villas were dominantly built in brick and mortar, with occasional use of reinforced concrete beams and slabs. In external appearance, modern villas in Zagreb were more Loosian than Corbusierian. However, these buildings undoubtedly showed an imminent attempt at being new and modern (Kahle, 2016).

It was the individual housing construction (villas and family houses) in Zagreb that was the key to the development of modern architecture due to the possibility of unconstrained author's approaches and the avant-garde aspirations of wealthy clients (Premerl, 2002: 54). Villa Pfeffermann at Jurjevska 27, designed by architect Marko Vidaković from 1928, is considered one of the first realizations of domestic functionalist residential architecture⁴² in the modernist style (Damjanović, 2014: 293). However, it is not among the researched buildings because it is not listed.

In the period of modern architecture in Zagreb from 1931 to 1947⁴³, 16 buildings were built, which is roughly a quarter of the 60 researched buildings. Three buildings were built in the 1940s, while 13 buildings were constructed in the 1930s, i.e. in the time span of only ten years.⁴⁴ The villas' authors were Alfred Albini, Hinko Bauer, Frane Cota, Stjepan Gomboš and Mladen Kauzlaric⁴⁵ ("Gomboš and Kauzlaric"), Lavoslav Horvat⁴⁶, Drago Ibler⁴⁷, Stjepan Planić⁴⁸, Vladimir Šterk, Antun Ulrich⁴⁹, Ivan Vitić⁵⁰ and Ernest Weissmann⁵¹. Out of the 16 modern architecture listed villas, most villas, four of them, were designed by Stjepan Planić.

Modern villas in Zagreb can be divided into two main groups, looking exclusively at the exterior formal characteristics. The first group has largely applied the principles of *International Style*.⁵² One of the first examples is Villa Radan, designed by Vladimir Šterk (Fig. 8).

³⁹ Source: <https://www.britannica.com/art/International-Style-architecture>

⁴⁰ The book "The International Style: Architecture Since 1922," was published in conjunction with the first show of architecture at the Museum of Modern Art in New York in 1932 – "Modern Architecture: International Exhibition".

⁴¹ Pilots (pillars), roof garden, open floor plan, long windows and open facades.

⁴² According to Aleksander Laslo and Željka Čorak.

⁴³ More details: Premerl, 2002, 2015.

⁴⁴ Listed buildings from the modern architecture period are located in Vladimir Nazor and Zamenhoffova streets, on Tuškanac with Jabukovac and Vijenac streets, in Gornje Prekrižje and in Ivo Mallin streets. Further away are Villa Deutsch in Vončina Street, Villa Kopista in Stjepana Babonić Street, Villa Matica in Petrova Street and the Schwartz House on Remetski kamenjak.

⁴⁵ More details: Architect Mladen Kauzlaric (Sekulić, 1991).



Second group is characterized by local contextualization⁵³, which is evident in the use of traditional materials (stone, wood, brick) and in the reinterpretation of traditional architectural forms (pitched roof, eaves, arches, pergola), like in the case of Villa Pajkurić, designed by Drago Ibler (Fig. 9).

Some villas combine the main formal characteristics of International Style with the use of local materials to a greater or lesser extent⁵⁴, as exemplified by Villa Kraus, designed by Ernest Weissmann (Fig. 10).

The use of traditional materials was a consequence of the intention to exploit easily available and inexpensive materials, which enabled quick and simple construction. The demand for rationality in construction, due to the economic downturn, thus brought a specific style of modern architecture to Zagreb.

Reinterpretation of traditional architectural forms has been present in the architecture of



summer residences and villas in Zagreb since the earliest period, and can be found continuously, as a motif in many projects, even nowadays.

DISCUSSION

Most researched buildings, regardless of the historical and stylistic period in which they were built, do not meet modern requirements such as mechanical stability and resistance, building physics and energy efficiency, car parking facilities, accessibility, safety, etc. The condition of researched buildings was to a great extent negatively affected by the earthquakes of 2020, which increased awareness of the need for structural and architectural renovation and modernization of buildings.

After the earthquakes, several scientific and professional works related to the topic of urban renewal and renovation of the buildings were published.

Croatian Academy of Sciences and Arts issued “Statement about the reconstruction of Zagreb after the March 22 earthquake in 2020” and organized a “Scientific and Professional Conference Reconstruction of the Historic Center of Zagreb after the Earthquake – Approach, Problems and Perspectives” in the 2022, with the corresponding Book of proceedings (Kincl and Karač, 2022). Tihomir Jukić, Ana Mrđa and Kristina Perkov issued a book “Urban renewal – Urban rehabilitation of the Lower Town, Upper Town and Kaptol / Historic urban areas of the City of Zagreb” (Jukić, Mrđa and Perkov, 2020). Zlatko Karač wrote the scientific paper “Reconstruction of the historical urban complex of Zagreb after the earthquake: conservation approach, starting points and basic guidelines” (Karač, 2020).



FIG. 8 VILLA RADAN, TIME OF CONSTRUCTION 1931-1932, AUTHOR VLADIMIR STERK, ADDRESS JABUKOVAC 39. AUTHOR OF RENOVATION DESIGN: AMIRA ČAUŠEVIĆ, M.ARCH, ARTA PROJEKTIRANJE D.O.O.

FIG. 9 VILLA PAJKURIĆ, TIME OF CONSTRUCTION 1941-1947, AUTHOR DRAGO IBLER, ADDRESS VLADIMIRA NAZORA 64

FIG. 10 VILLA KRAUS, TIME OF CONSTRUCTION 1936-37, AUTHOR ERNEST WEISSMANN, ADDRESS VLADIMIRA NAZORA 29

⁴⁶ More details: Lavoslav Horvat – Contextual ambientism and modernity (Paladino, 2013).

⁴⁷ More details: In the function of a sign – Drago Ibler and Croatian architecture between the two wars (Corak, 1981).

⁴⁸ More details: exhibition catalogue Stjepan Planić 1900-1980 (Radović Mahečić and Hanićar, 2003).

⁴⁹ More details: Architect Antun Ulrich: The classicism of modernity (Mikić, 2002).

⁵⁰ Architect Ivan Vitić: monograph of works (Štulofer and Uchytíl, 1994).

⁵¹ Ernest Weissmann: Socially engaged architecture, 1926-1939 (Bjazić Klarin, 2015).

⁵² For example: Villa Alexander, Villa Botteri, Villa Kopista, Villa Matica, Villa Radan.

⁵³ For example: House Blažeković, House Fuhrmann, Villa Meixner, House Schwartz.

⁵⁴ For example: Villa Deutsch, Villa Kraus, Villa Pajkurić, Villa Cuvaj.

Finally, on February 14, 2023⁵⁵, the Council of the City of Zagreb adopted the Decision on the Adoption of the Program for the Complete Restoration of the Historic Urban Complex of the City of Zagreb.⁵⁶

However, the aforementioned scientific and professional papers did not discuss the renovation of summer residences, villas and (family) houses, which remain neglected.

During the years of use, many of the researched buildings were degraded by inappropriate, unprofessional, and often illegal interventions (additions and renovations). Often precisely because of listed building status, the deterioration of buildings is accelerated, because the owners do not engage in the renovation process due to the high costs of renovations in line with conservation principles. As a result, there is high risk of losing the fundamental characteristics for which the buildings are protected.

Some of the researched buildings are now cultural institutions (museums, collections, memorial spaces) and social institutions (educational center, rehabilitation center, kindergarten). Seven of the sixty investigated buildings are embassy residences. Buildings that have retained their original residential purpose are in different conditions, depending on the age of the building, maintenance, the owner's finances, etc. Due to their special purpose, embassy residences are in excellent building condition and have all been renovated and modernized to a greater or lesser extent.

The researched buildings need not only to be renovated in such a way as to preserve the architectural identity factors, but also to be modernized in order to meet today's requirements in terms of earthquake resistance, energy efficiency, functional use and aesthetics (especially the interior), etc. The idea is for the renovation and modernization to be of such quality that they become new cultural heritage. However, that is only possible if all urban planning, architectural, historical and other architectural identity factors are first correctly identified, and only then restored on the basis of established models and criteria for renovation and modernization. An important segment of later research will be the analysis of the renovations carried out so far and the establishment of clear criteria for their valorization (Obad Šcitaroci et al., 2019).

CONCLUSION

The conducted research provides insight into the complete initial overview of listed buildings – summer residences, villas and (family) houses – in the spatial context of Zagreb. The research determined the location of 60 listed

summer residences, villas and (family) houses in the city of Zagreb, on the basis of the Act on the Protection and Preservation of Cultural Property. Most buildings are located within the Protected Historic Urban Ensemble of the City of Zagreb – there are 25 buildings in Zone A and 26 in Zone B. Only 9 buildings are located outside the specified protection zones. The interiors are additionally protected in only two buildings. As an indivisible part of the eleven buildings, their gardens are also listed as cultural property. On the basis of the Nature Protection Act, two gardens are listed and carry the status of monument of the park architecture, along with listed buildings.

Apart from a few exceptions, the construction of the greatest part of summer residences in Zagreb went hand in hand with the beginnings of the strong urbanization of the city of Zagreb, which started with the adoption of the Building Order from 1857 and the First Master Plan of the city from 1865.

The Second Master Plan of the city from 1889, which followed the earthquake of 1880 and directed the first modern urbanization of the city, gave a special incentive for construction. The plan envisaged the construction of summer residences and villas on the southern slopes of *Medvednica (Zagrebacka gora)*. At the beginning of the 20th century (1905-1915), master plans were made for summer residence areas in the northern hilly part of Zagreb, and in 1911, regulations for the construction in summer residence areas of the city were adopted. Thus, the construction of summer residences and villas was clearly regulated both in terms of urban planning and architectural design.

By researching the time of construction and main architectural characteristics of 60 researched buildings, three historical stylistic periods were identified for when the buildings were built and to which they belong according to architectural and stylistic characteristics.

In the first historical-stylistic period (from 1736 to mostly the end of the 19th century, 1935 at the latest), 26 summer residences were built. The oldest buildings have features of late baroque and classicism, most summer residences have historicist design or reinterpret elements of traditional architecture.

In the second, proto-modern architecture period (1904-1929), 18 villas were built under

⁵⁵ On the basis of Article 12, Paragraph 3 of the Act on the Reconstruction of Buildings Damaged by an Earthquake in the City of Zagreb, Krapina-Zagorje County, Zagreb County, Sisak-Moslavina County and Karlovac County and Article 40 of the Act on Amendments to the aforementioned act.

⁵⁶ https://www.zzpugz.hr/wp-content/uploads/2023/02/01_Program_obnove_integralno.pdf

the influence of Art Nouveau, Secession, Arts&Crafts movement and the Domestic Revival. In the third period, the period of modern architecture (1931-1947), 16 villas (family houses) were built for permanent residence.

The research of the documentation of the Ministry of Culture and Media as competent authority revealed inconsistencies, since the researched buildings are termed differently – *summer residences*, *villas*, *houses* and *family houses*, without unambiguously defined typological differences. It is possible to clearly define the boundary between *summer residences* (buildings for occasional use in secluded locations, often next to vineyards and orchards) and *villas* and *(family) houses* (buildings for permanent residence in the urban districts of the city). However, it is not possible to precisely define the difference between a *villa* and a *(family) house*. The term *house* has an extremely broad meaning, since multi-apartment buildings are marked and listed as such in Zagreb. The typological classification – *summer residence / villa / (family) house* – both due to changes in the meaning of terms and due to changes in the buildings themselves during the past, could only be made by precisely defining new terms that would have unequivocal meanings and that would observe the original, i.e. current type and purpose of the building. This was not the subject of this research, but this problem indicates the need for future research on the conceptual definition and typological differences between the terms *summer residence*, *villa* and *(family) house*.

The authors propose the introduction of term criteria according to the character of the orig-

inal design of each listed building. If the listed building was designed for temporary housing, it should be called a *summer residence*. If the listed building was designed for permanent housing, it should be termed a *villa*. The suggestion is for the terms *house* and *family house* not to be used for listed buildings, because they are too broad in meaning and do not suggest a high quality of architectural achievements, as the terms *summer residence* and *villa* suggests.

The basic assumptions for the continuation of comprehensive research were achieved through the conducted analysis. After this overview has been made, it is possible to continue systematic research in order to determine the urban planning and architectural characteristics of the buildings and urban zones, assessment of their building condition, determination of the original and current purposes of the buildings as well as other factors of recognition. The ultimate goal of future research is to determine the criteria and possible models applicable in renovation and modernization of listed buildings. Despite numerous stylistic, architectural, aesthetic and other differences, it is possible to establish general criteria for renovation and improvement, and to find models of modern interventions that will be acceptable despite these differences.

At the same time, it is necessary to take into account specific criteria and research models that can be applied in order to preserve but also affirm these peculiarities.

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- FIG. 8 Photo: Senja Vild
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