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Doctoral Dissertation

Late-modern architecture of single-family houses from 1945-1989 in Poland: research and perspectives for protection on the example of selected objects from the area of the Silesian Voivodship

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I. Introduction and research assumptions

1. Characteristics of the thematic framework and subject of the study

Twentieth-century Polish architecture has garnered significant attention from both scholars and the general public. As early as the latter half of the 20th century, numerous studies were published showcasing research on buildings from the interwar period, a line of inquiry that remains active today. Notably, a considerable portion of these examined structures were luxurious commissions from wealthy clients, including single- and multi-family villas. Many of these buildings are now recognized as valuable elements of 20th-century architectural heritage and are protected under heritage conservation regulations.

The context of buildings constructed between 1945 and 1989, during the Polish People's Republic (PRL) era, presents a unique case. In public perception, this period is not commonly associated with private residential architecture but rather with mass-produced housing projects funded by the state. The concept of a 'single-family house from the PRL period' typically conjures images of the so-called Polish cube': a structure built according to repetitive, standardized designs or constructed through informal 'self-build' methods, often lacking comprehensive project documentation. Preliminary literature reviews indicate that, although Polish architecture from the latter half of the 20th century has been discussed in numerous academic and popular works, the phenomenon of private single-family housing from this era has received limited scholarly attention and remains largely undocumented. A few architecturally notable examples have appeared in contemporary publications, usually within the context of broader studies on specific architects. However, a systematic examination of this topic is still absent, representing a significant gap in the understanding of 20th-century Polish architecture—a gap this dissertation aims to address.

After the political transformation of the 1990s, the negative perception of Polish architecture from the communist era was intensified by widespread rejection of the former regime. Only over time has a more objective appreciation emerged, recognizing the value of architectural works from that period. Interest in these buildings has gained momentum, especially within discussions regarding the need for protective measures to prevent their demolition or radical alteration. Over the past two decades, numerous national and international conferences have been held, and a variety of exhibitions organized, on this subject[1]. This topic is being raised by various research and architectural heritage institutions in Poland, including the National Institute of Architecture and Urban Planning in Warsaw, the Museum of Architecture in Wrocław, the Centre for Architecture in Kraków, the International Cultural Centre in Kraków, and the Institute of Architectural Documentation at the Silesian Library in Katowice. Moreover, the initiatives of these Polish institutions align with the growing interest in the architectural heritage of post-Soviet countries, as international researchers increasingly focus on the regional aspects of European architecture from this period.

The formulation of this research's assumptions was preceded by an initial exploratory phase. A literature review indicated that scholarly attention to Poland's architectural heritage from the second

[1] Examples of such events include the series of international academic conferences held since 2007 in Gdynia, titled *'Modernism in Europe – Modernism in Gdynia'*; the conference *'Modernism Protected by Law'* (2016, Warsaw); and exhibitions such as *'Soc-modern: Architecture of Central Europe during the Cold War'* (2024, International Cultural Center in Kraków).

half of the 20th century has predominantly focused on state and cooperative projects, with private, individually constructed houses remaining largely unexplored. Preliminary research, including initial interviews with architects active during the Polish People's Republic (PRL) period, further highlighted the dual nature of single-family housing development during this era. In addition to buildings based on standardized designs (developed by state design offices and distributed via catalogs), there existed a parallel trend of individually designed houses commissioned by private clients, some of whom were architects designing for themselves.

The pressing need to research, document, and evaluate these buildings to safeguard this valuable architectural heritage was a primary motivation for undertaking this research. As much of this heritage exists in private ownership, it is especially vulnerable to unregulated alterations or even demolition. The absence of legal protections and conservation guidelines reflects a substantial gap in the recognition and understanding of Poland's architectural heritage from the latter half of the 20th century—an oversight that urgently requires redress.

The subject of the study are custom-designed single-family houses in the late-modern style, developed for private investors between 1945 and 1989 (during the PRL period) in selected areas of the Silesian Voivodeship.

2. Justification for the selection of the topic and preliminary research

The author's interest in the topic of individually designed post-war single-family houses emerged even prior to undertaking doctoral studies. A major influence on the selection of this research topic was a series of conversations with architect Jerzy Gottfried (1922–2017), a prominent figure in the region. These meetings occurred between 2016 and 2017 at Gottfried's own home, constructed in the early 1960s in Katowice's Brynów district[2]. This distinctive building, marked by its original spatial composition and artistic treatments, offered the author a firsthand experience of its interior, accompanied by insights from its creator, who was both designer and investor. This encounter sparked the question: *'Are there more such buildings, seemingly incongruous with the realities of housing construction during the PRL?*' This inquiry subsequently became the foundation for the study's first research question.

The formulation of the first research question marked the beginning of the preliminary research phase. The author's gradual exploration of the subject was facilitated by participation in the project *'Designers of Silesian Architecture: Portraits'*, carried out at the Silesian Library in Katowice[3]. This project not only enabled the acquisition of knowledge about architecture developed in the second half of the 20th century in the region, but also made it possible to establish contact and meetings with other significant architects, including Aleksander Franta (1925-2019) and Jurand Jarecki (1931–2024). Interviews conducted with witnesses to the realities of the studied period, particularly those who were active designers at the time, provided valuable research insights and led to the formulation of a complete set of research questions. Furthermore, the architects generously shared project drawings

[2] The single-family house designed by Jerzy Gottfried on Słowików Street in Katowice is also discussed in this dissertation in Chapter IV: *Detailed Research*.

[3] The interdisciplinary project mentioned was carried out between 2014 and 2018 at the Silesian Library in Katowice. Since 2018, its initiatives have been continuously pursued by the newly established Institute of Architectural Documentation at the Silesian Library in Katowice.

and archival photographs from their private collections, most of which had not previously been published. These materials enabled the commencement of preliminary field research to identify the single-family houses they had designed. The resulting inventory revealed that these houses were located within two distinct spatial contexts. The first was an organized, structured setting within large cities of the Upper Silesian conurbation, such as Ptasie Osiedle (Ptasie Estate) in Katowice's Brynów district. The second context involved houses integrated into the more dispersed environment of small resort towns, exemplified by locations like Szczyrk. This observation proved essential in defining the geographical scope of the research.

The key factors influencing the author's decision to pursue this topic are outlined below. These factors reflect the conclusions derived from the initial investigation conducted prior to establishing the research assumptions.

- **The existence of the subject heritage**

The selection of this topic stems from the author's initial observation of a specific group of single-family houses from the latter half of the 20th century in the Silesian Voivodeship, distinguished by unique architectural features that set them apart from the typical standardized designs of the period. This observation was pivotal in shaping the research hypothesis. Preliminary research by the author indicates that, following World War II, the expansion of heavy industry, research institutes, and academic centers attracted a highly skilled professional workforce from across Poland to the cities of the Silesian Voivodeship. To encourage them to settle in the Upper Silesia region, the authorities allocated attractively located plots in cities for single-family housing construction[4]. As a result, individual residences began to be constructed on these designated plots. Similarly, in the recreational areas within the "green belt" of the Upper Silesian Industrial District, such as Ustroń, Wisła, and Szczyrk, private investors initiated the development of holiday homes.

- **The incompleteness of knowledge**

It has been observed that there is a lack of research and systematic academic studies on post-war individual single-family architecture, as well as on its forms of protection. Aside from a few incidental, selective studies, the existing body of knowledge is dominated by publications addressing post-war architectural heritage in broader terms, where individual single-family residences are only briefly referenced within discussions of prominent architects' works.

- **Heritage at risk and the lack of protection**

Since the early 1990s, single-family homes built during the PRL period have been subject to a gradual and unregulated transformation, involving renovations, façade modifications, and even demolition. This process persists due to the low public awareness of the cultural and historical value of post-war architectural heritage. The coming years will be pivotal in determining whether these buildings are permanently lost or preserved and recognized as valuable heritage, reflecting the creative potential of mid-to-late 20th-century architects.

3. Research problem and questions

[4] K. Szaraniec, L. Szaraniec, K. Szarowski, *Katowice i Górnośląski Okręg Przemysłowy* [Katowice and the Upper Silesian Industrial Region], Katowickie Towarzystwo Społeczno-Kulturalne, Katowice 1980, p. 79.

The **research problem** is defined as a significant lack of scholarly knowledge regarding the architectural heritage of custom-designed, single-family houses commissioned by private clients in Poland during the second half of the 20th century. This gap includes an insufficient understanding of the scope and cultural value of such architecture, with the Silesian Voivodeship identified as the primary research area. Furthermore, there is limited insight into the current preservation status of these buildings, as well as the potential mechanisms for their protection as part of Poland's architectural heritage.

The study does not formulate a specific hypothesis. Instead, it aims to address the research problem through a structured set of **research questions** presented below:

- What is the state of research on the problem?
- What factors influenced the shaping of single-family residential architecture during the studied time period?
- What is the scope of the resources of the subject architectural heritage in the study area?
- Is it possible to distinguish spatial types of these buildings?
- What are the characteristics of the buildings identified in the study area in terms of their structure?
- What values are represented by the examined resource?
- Can formal affinities with broader global stylistic trends be identified?
- What is the preservation or degradation state of the existing buildings?
- What factors are contributing to the deterioration of the examined buildings?
- Can effective global practices for preserving the studied architectural heritage be identified?
- What recommendations can be formulated regarding the protection of the subject architectural heritage?

4. Research aim and objectives

The **aim of this study** is to address the identified research problem by supplementing and systematically organizing the missing knowledge about the architectural heritage of custom-designed single-family houses from the second half of the 20th century. This involves evaluating their architectural and stylistic significance and developing recommendations for their preservation and protection.

In addition to the main aim of the research, **specific objectives** have been identified:

- **Scientific objective:** this study provides a potential foundation for future, more detailed scientific research.

- **Practical and popularizing objective:** the research assumptions and selected methodologies are intended to provide a foundation for potentially recommending the most architecturally significant buildings for conservation protection. Additionally, an important goal of the study is to enhance public awareness of the value of this architectural heritage, as such awareness is instrumental in fostering broader support for preservation efforts.

- **Methodological objective:** this work may serve as a model for research methodology applicable to studies on similar topics conducted in other regions of Poland or in different countries.

5. Scope of the study

Based on the conducted initial investigation, as well as the formulated research questions, research problem and aim of the study, the following research scopes were adopted:

- **The time frame of the study** spans from 1945 to 1989, encompassing the period from the end of World War II to the onset of Poland's political transformation.

  However, the detailed time frame for the selected and surveyed buildings is limited to the years **1956–1980**, aligning with the stylistic framework of late modernism in Poland as defined within the study's subject and scope. This period began following the 'thaw' in political climate after Stalin's death in 1953 and Poland's October Thaw in 1957, signaling a shift away from rigid Socialist Realism. As ideological restrictions relaxed, architects were granted increased freedom to experiment with modernist and international styles, focusing on functionality, minimalism, and the use of new materials and technologies[5].

- **The spatial scope** covers the area of the Upper Silesian Conurbation[6] and the Beskid Agglomeration[7], both located within the Silesian Voivodeship.

  Based on preliminary research, two distinct area types were identified: urban centers of local administration, industry, and science (including Katowice, Gliwice, Chorzów, Sosnowiec, Dąbrowa Górnicza, Tychy, and Bielsko-Biała) and primary recreational and spa resorts within the Silesian Voivodeship located in the Silesian Beskids (including Ustroń, Wisła, and Szczyrk). These selected cities serve as a representative group of sites characteristic of both defined categories.

- **The substantive scope** of the research includes literature and archival studies, field research, inventory and documentation, architectural and stylistic analysis, condition assessment, comparative analysis, valorization, and the development of guidelines for the protection of the subject buildings.

[5] A. Cymer, *Architektura w Polsce 1945-1989* [Architecture in 1945-1989 Poland], Centrum Architektury and Narodowy Instytut Architektury i Urbanistyki, Warsaw 2019, pp. 121-122.
[6] The Upper Silesian Conurbation is a densely populated and highly industrialized urban area in southern Poland covering a population of around 2.3 million people., primarily located in the Silesian Voivodeship.
[7] A group of towns and cities in the Silesian Voivodeship of southern Poland, situated in the foothills of the Silesian Beskids, part of the larger Carpathian Mountain range. Unlike the heavily industrial Upper Silesian Conurbation, the Beskid Agglomeration is known for its scenic landscapes, tourism, and recreational infrastructure, with a focus on natural and cultural tourism.

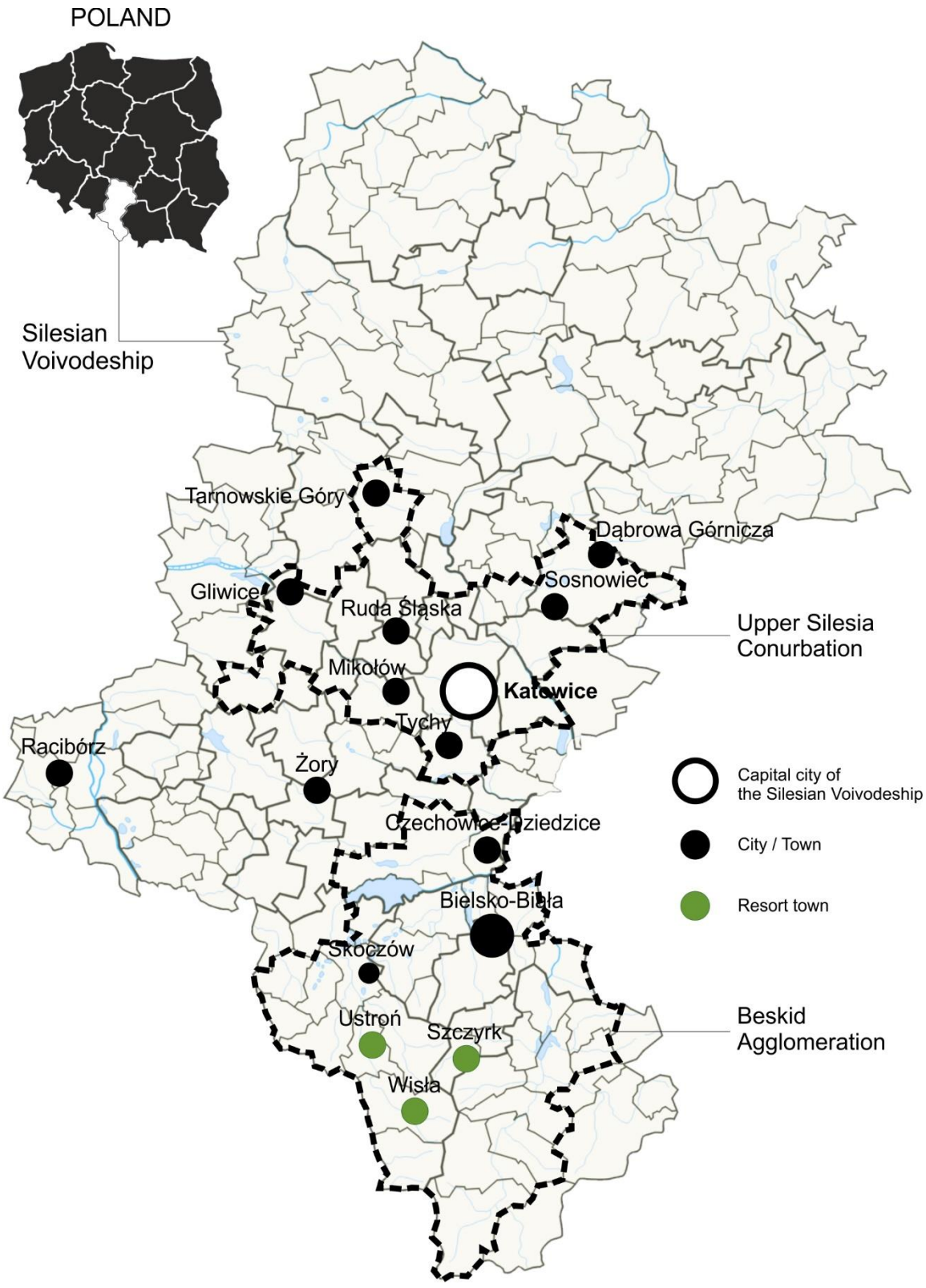

Fig. 1. Map of the Silesian Voivodeship. Dots indicate the locations of single-family houses discussed in this dissertation. Prepared by the Author.

6. Author's methodology

- **Research procedure and structure of the study**

The research process began when the author identified a group of single-family houses in Katowice that attracted attention due to their atypical architectural features, designating these houses as the focus of further study. Preliminary inquiry into this subject, within the broader framework of Polish architectural heritage from the second half of the 20th century, led to the development of foundational components: a set of research questions, the research problem, and the hypothesis. Additionally, an initial research scope and objectives were defined. It is worth noting that the research process did not follow a strictly linear path; certain elements of the research assumptions and methodological approach underwent minor adjustments as the study evolved.

The next stage involved conducting a study of the state of knowledge on single-family house architecture, which was divided into literature and archival research. The literature research included publications that were contemporaneous with the described architectural heritage, as well as those contemporary, analyzing the architecture from a historical perspective. These comprised works addressing global 20th-century architecture (with particular emphasis on European countries and the United States) and the time frame adopted in this dissertation: the era of the Polish People's Republic (1945-1989). The third group of works comprised publications related to the protection of 20th-century architecture. Archival research formed the second core of the state-of-knowledge study, which the author found particularly interesting. This research can be divided into two areas: the study of restricted-access materials (located in the private collections of architects, including previously unpublished architectural drawings, conceptual diagrams, and construction photographs), and those that were publicly available in institutional and municipal building archives. The methodology for obtaining archival design materials requires comment, as the approach differed from that used for examining the existing condition of buildings during the field research, which was conducted simultaneously at almost all stages of the presented study. Field research led to an expansion of the final group of studied buildings, informed by insights from architects and residents of other visited houses who identified additional structures with noteworthy architectural features (Fig. 2). Additionally, exploration of low-density residential districts during visits to buildings scheduled in the basic research sample proved valuable in further expanding the research sample.

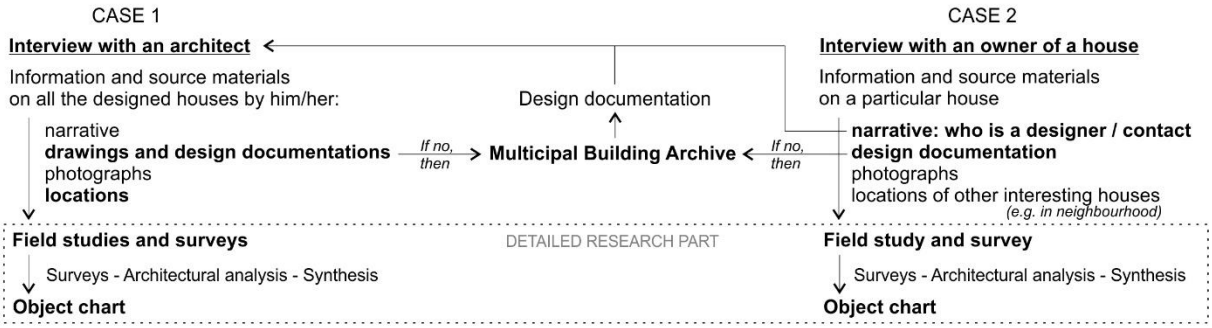

Fig. 2. Scheme of the methods for gathering sources during the research. Prepared by the Author.

Following the state-of-knowledge research and the confrontation and validation of the initial research assumptions, both general and detailed studies began, the interrelationship of which is depicted in the research structure diagram (Fig. 3). The **general research** involved analyzing the information gathered during the literature review, which led to identifying the determinants of 20th-

century architectural development globally and in Poland, as well as conducting a synthetic analysis of key architectural trends through specific house examples. In contrast, the **detailed research** centered on the Silesian Voivodeship in the latter half of the 20th century, examining, among other aspects, the conditions and context of architectural practice for selected architects and their affiliates. From this group, a representative sample was chosen to analyze their design work on single-family houses. As the research progressed and archival drawings and project records were reviewed, the selection of houses and architects was expanded to include those not initially part of the study but deemed relevant due to their distinctive architectural features.

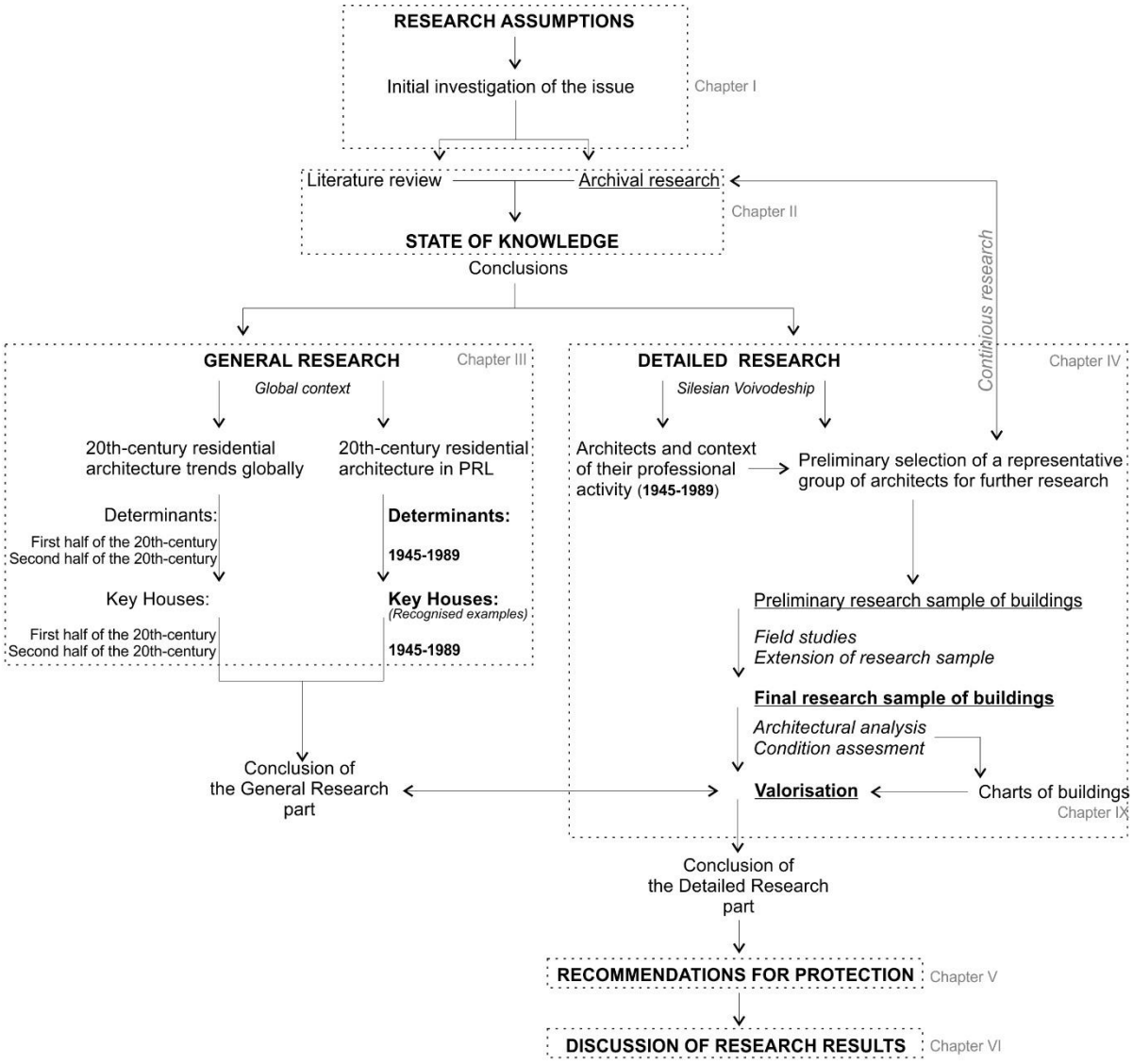

Fig. 3. Scheme of the research procedure and dissertation structure. Prepared by the Author.

The architectural research, combined with stylistic and typological analyses and an assessment of the condition of the studied buildings, facilitated the valorization of these structures, with the findings recorded in object charts included in the study's appendix. Upon concluding the architectural research, the results were compared with those from broader studies, situating the examined buildings within the context of 20th-century global architectural trends.

In the chapter focused on the protection of the studied architectural heritage, the legal protection framework in Poland, along with international examples of efforts to preserve and promote the architectural heritage of single-family houses from the latter half of the 20th century, were compiled based on prior literature research. These components provided a foundation for developing general guidelines for the protection of this heritage. The study concluded with a discussion of the research findings and a final reflection on their implications.

- **Research techniques and tools**

The adopted methodology, summarized in section 6.1, includes a set of well-established techniques and research tools commonly used in studies of architectural heritage. These techniques include archival research, field surveys and photographic documentation which allow for precise visual records and help identify changes or degradation in architectural elements over time.

In the case of field research aimed at supplementing knowledge on the potential sample group of individually designed single-family houses in areas with a high likelihood of finding such examples, on-site walks along nearby streets were complemented by the use of *Google Maps 3D* and *Google Street View* tools.

In addition to standard, proven research techniques and tools, a key element in this dissertation's research is the use of a authorial tool in the form of **Object Charts**. These Charts are employed in field studies, as well as for graphic representation and synthesis based on data gathered during preliminary research and typological classification.

A notable advantage of these custom cards is that they not only assist in data organization but also, through their structured layout, support comparative analyses among the studied buildings. The Chart's templates have been designed by the Author of this dissertation to be optimal for various situations: they are applicable to existing buildings, regardless of their current preservation state, as well as to demolished structures and unrealized architectural projects that survive only in paper form.

The structure of these cards is detailed in the appendix (Chapter IX), with an introduction explaining their organization and intended purpose in object documentation.

II. State of knowledge and terminological clarification

1. State of knowledge based on literature review

The literature review comprises three main sections. The first section presents the global state of knowledge on the architectural heritage of 20th-century single-family houses, establishing an essential background for the more focused areas that follow. The second section addresses the architectural heritage of single-family homes in the Polish People's Republic (PRL). The final part of the review examines issues related to the preservation of 20th-century architectural heritage, providing insights into protection frameworks.

1.1. Issue of global architectural heritage of the 20th century single-family houses

Interest in a comprehensive attempt to organize knowledge on the global architecture of 20th-century single-family houses began to emerge as early as the 1980s. Hideaki Haraguchi published a book titled '*A Comparative Analysis of 20th Century Houses'*, in which he presented his original historical and typological analyses of dozens of houses designed by leading international architects in regions including America, the British Isles, and Europe[8]. In the first part, the author traces back to the 15th century and the archetype of Palladian villas, examining changes in, for instance, the spatial layout of standalone houses over the centuries. In the second part, he juxtaposes the results of his analyses with a selection of buildings designed between 1900 and the early 1980s, attempting to identify formal and spatial connections with historical examples. An interesting outcome of this work is his proposed classification of stylistic trends observable in 20th-century residential architecture.

Another book that addresses the subject from a global perspective is '*Key Houses of the Twentieth Century: Plans, Sections and Elevations* by Colin Davies'[9]. Davies selected over one hundred of the most influential buildings of the 20th century, each illustrated with schematic floor plans, sections, elevation drawings, and axonometric views. Accompanying each set of drawings is an analytical description that outlines the contextual, spatial, and mathematical relationships observed by the author. The book opens with an extensive chapter presenting the major trends in 20th-century villa architecture, compared with their predecessors, including figures such as Peter Behrens, Frank Lloyd Wright, Adolf Loos, Le Corbusier, Mies van der Rohe, Alvar Aalto, Ray and Charles Eames, Konstantin Melnikov, Harry Seidler, as well as Robert Venturi, Peter Eisenman, and Rem Koolhaas. In this chapter, Davies makes an intriguing attempt to trace the interrelated influences within the work of these prominent 20th-century designers. Among overview books on this topic and graphic methodologies for representing single-family house architecture from the second half of the 20th century, a noteworthy publication is the one edited by Antonello Boschi and Luca Lanini[10]. Alongside chapters featuring historical and architectural analyses, the book includes a particularly interesting section with a graphic synthesis in the form of axonometric drawings and simplified floor plans of selected single-family houses from around the world.

[8] H. Haraguchi, *A Comparative Analysis of 20th Century Houses*, Rizzoli, New York 1988.

[9] C. Davis, *Key Houses of the Twentieth Century: Plans, Sections and Elevations, Laurence King Publishing*, London 2006.

[10] A. Boschi, L. Lanini (eds.), *L'architettura della villa moderna. Gli anni delle utopie realizzate 1941-1980* [The Architecture of the Modern Villa: The Years of Realized Utopias, 1941–1980], Quodlibet Studio, Macerata 2017.

A significant contribution to organizing and expanding knowledge on 20th-century single-family house architecture worldwide is the series of publications by Dominic Bradbury. The first book in this series, '*The Iconic House: Architectural Masterworks Since 1900'*[11], is the result of extensive archival research and photographic documentation of 80 iconic houses built between 1900 and 2012. Although most examples come from the British Isles and the United States, the author also includes European houses (from France, Spain, and Italy, among others). Each house is analyzed through both architectural perspectives and historical and social contexts. Bradbury expands on these contextual themes in his subsequent publication, '*Atlas of Mid-Century Modern Houses'*, which opens with an in-depth chapter introducing readers to the architecture of individual residences. In this chapter, the author emphasizes the importance of viewing such structures as essential elements of world cultural heritage[12]. This book features 400 houses from all continents, accompanied by textual descriptions, archival and contemporary photographs, and a three-tier classification based on preservation status, current use, and conservation measures. Both publications exemplify architectural atlases. Bradbury's third book, '*The Secret Life of the Modern House: The Evolution of the Way We Live Now'*, represents a different type of publication[13]. As the author notes in the introduction, the goal is not to catalog buildings but to offer a critical analysis that traces trends and the evolution of single-family house architecture over the late 19th, 20th, and early 21st centuries. This analysis is supported by over 90 examples of houses discussed across chapters that cover architectural movements and periods significant to residential design. Many cases are paired with explorations of not only design innovations related to spatial layout, façades, and interior aesthetics but also technical inventions that have significantly influenced residential spaces.

Another work that approaches the topic from a global perspective is '*20/20: Twenty Great Houses of the Twentieth Century'* by Johan Pardey[14]. The author selected 20 single-family houses that he considers the most influential within the context of global architecture. His selection is based on thorough literary, historical, and comparative analyses. Each house is meticulously described, with a focus on its most innovative features in spatial arrangement and the use of construction and finishing materials. The descriptions are accompanied by reproductions of archival materials, primarily project documentation drawings. These houses are the work of architects such as Gerrit Rietveld, Le Corbusier, Adolf Loos, Mies van der Rohe, Frank Lloyd Wright, Giuseppe Terragni, Alvar Aalto, Charles and Ray Eames, and Oscar Niemeyer.

A separate category of publications includes those presenting analytical research. Although they primarily address the architectural heritage of the first half of the 20th century, they are highly valuable for the methodology they contribute to research on single-family housing, which can also be applied to the study of heritage from the latter half of the century. H. Allen Brooks examined Frank Lloyd Wright's writings on residential architecture and conducted architectural analyses of Wright's projects built in the United States between 1885 and 1939. In his article '*Frank Lloyd Wright and the Destruction of the Box'*, Brooks formulated a set of conclusions and identified Wright's most significant

[11] D. Bradbury, *The Iconic House: Architectural Masterworks Since 1900*, Thames&Hudson, London 2009.
[12] D. Bradbury, *Atlas of Mid-Century Modern Houses, Phaidon Press*, New York 2021.
[13] D. Bradbury, *The Secret Life of the Modern House: The Evolution of the Way We Live Now*, Ilex Press, London 2021.
[14] J. Pardey, *20/20. Twenty Great Houses of the Twentieth Century, Lund Humphries*, London 2020.

'architectural inventions' which later influenced the design of single-family homes[15]. These inventions primarily concerned spatial organization and the deliberate creation of visual connections between indoor and outdoor areas. Another relevant line of research explores the relationship between the parallel work of other key architects of the 20th century. Focusing on Wright's influence on later architects, it is worth mentioning Paul Venable Turner's article '*Frank Lloyd Wright and the Young Le Corbusier'*[16]. Turner observed that while Wright's influence on European architecture—especially in the Netherlands and Germany—is well-documented, its impact on Le Corbusier is less straightforward. He argues that between 1910 and the mid-1920s, Le Corbusier studied Wright's single-family house designs, which had a formative impact on his spatial philosophy in residential projects from the 1920s and 1930s. Turner's analysis combines architectural and comparative studies of houses designed by Wright and Le Corbusier, supplemented by an unpublished letter in which Le Corbusier detailed his understanding of Wright's work. Henry-Russell Hitchcock addressed a similar theme in his study '*The Evolution of Wright, Mies & Le Corbusier'*, focusing on individual house designs to illustrate interconnections and influences among these architects[17]. Also noteworthy is the late-1980s book *Raumplan versus Plan Libre*, a result of years of research led by Max Risselada at the Delft University of Technology[18]. This study centers on single-family homes designed by Adolf Loos and Le Corbusier, analyzing spatial configuration and facade composition techniques employed by the two architects. Although the houses examined are located in Austria, the Czech Republic, and France and date from the early 20th century, they had a profound impact on the design of later European architecture, particularly through Loos and Le Corbusier's innovative spatial solutions. Due to its depth of study, graphical representation methods, and comparative building analyses, this publication represents a significant contribution to 20th-century residential architecture research. In mentioning '*Raumplan versus Plan Libre'*, one should also mention shorter but valuable theoretical and methodological publications. Cynthia Jara, an architect and scholar of early 20th-century residential architecture, published an article titled *Adolf Loos's 'Raumplan Theory'*, in which she presents an alternative interpretation of Raumplan's spatial organization, using the Rufer House in Vienna as an example[19]. Referencing inaccuracies in early monographs by Heinrich Kulka and Ludwig Münz, as well as Loos's own notes, Jara identifies a set of spatial characteristics that were critical to the evolution of private residential architecture in the following decades.

The publications discussed thus far contribute valuable knowledge about 20th-century architectural heritage in single-family housing from a global perspective or in terms of the analytical methodologies applied in studies of selected examples worldwide. From a cognitive standpoint, books that focus on 20th-century single-family houses on a more localized scale, examining specific countries or regions, also provide essential insights. Particularly intriguing are books from the '*Great Villa's* series, which offer broad overviews of architecture in a given country or region and consistently include chapters dedicated to the second half of the 20th century, highlighting several houses from that period.

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[15] H. Allen Brooks, *Frank Lloyd Wright and the Destruction of the Box*, "Journal of the Society of Architectural Historians" 1979, vol. 38, no. 1, pp. 7-14.
[16] P. Venable Turner, *Frank Lloyd Wright and the Young Le Corbusier*, "Journal of the Society of Architectural Historians" 1983, vol. 42, no. 4, pp. 350-359.
[17] H. R. Hitchcock, *The Evolution of Wright, Mies & Le Corbusier*, "Perspecta" 1952, vol. 1. pp. 8-15.
[18] M. Risselada (ed.), *Raumplan versus Plan Libre*, Rizzoli, New York 1988.
[19] C. Jara, *Adolf Loos's "Raumplan" Theory*, "Journal of Architectural Education" 1995, vol. 48, no. 3., pp. 185-201.

Notable titles in this series include: '*The Great Villas of Slovakia*'[20], '*The Great Villas of Hungary*'[21], '*The Great Villas of Slovenia*'[22], '*The Great Villas of Bohemia, Moravia and Silesia*'[23], and '*The Great Villas of Prague*'[24]. Other publications that discuss the architecture of private single-family houses in the second half of the 20th century within specific national contexts include '*Case Study Houses: The Complete CSH Program 1945–1966*'[25] and '*50/60/70 Iconic Australian Houses: Three Decades of Domestic Architecture*'[26].

As valuable sources of information on examples of single-family home architecture from the second half of the 20th century worldwide, articles showcasing individual cases are noteworthy—such as those published in the *Do.co.mo.mo Journal* by authors like Kyle Normandin[27], Ana Tostões[28], Ruth Verde Zein[29], Silvia Segarra Lagunes[30], and Richard Klein[31].

Information on single-family house architecture from the latter half of the 20th century can also be found outside of traditional book publications. Specialized websites dedicated to cataloging examples of such houses worldwide have become valuable resources. These sites systematically add new entries, providing descriptions and photographic documentation. Notable examples include *IconicHouses.org*[32] and *WowHaus.co.uk*[33]. The former focuses on the intriguing goal of gathering information about modernist houses worldwide that are open to the public, either as museums or as accommodations. The latter compiles information on single-family houses of architectural heritage significance that are currently for sale, sourced from online real estate listings.

1.2. Issue of architectural heritage of single-family houses in 1945-1989 Poland

During the period of the Polish People's Republic (PRL), the primary source of information on emerging architecture in the country was found in the book publications produced by 'Arkady', the leading publisher of that era specializing in architectural topics[34]. The book series released by this publisher now serve as valuable resources, documenting buildings that we are beginning to regard as

[20] M. Dulla (ed.), *The Great Villas of Slovakia*, Foibos, Praha 2010.
[21] A. Puhl (ed.), *The Great Villas of Hungary*, Foibos, Praha 2013.
[22] D. Prelovsek (ed.), *The Great Villas of Slovenia*, Foibos, Praha 2013.
[23] V. Slapeta, P. Zatloukal (eds.), *The Great Villas of Bohemia, Moravia and Silesia*, Foibos, Praha 2010.
[24] D. Dvorakova, P. Krajci, Z. Lukes (eds.), *The Great Villas of Prague*, Foibos, Praha 2009.
[25] E. A. T. Smith, J. Shulman, P. Gössel (ed.), *Case Study Houses. The complete CSH program 1945-1966*, Taschen, Cologne 2019.
[26] K. McCartney, *50/60/70 Iconic Australian Houses: Three Decades of Domestic Architecture*, Allen & Unwin, London 2007.
[27] K. Normandin, *Charles and Ray Eames: Modern Living in a Postwar Era*, "Docomomo Journal" 2012, Issue 46, pp. 48-53.
[28] A. Tostões, *A hidden beauty. Siza's adequacy lesson at the secret and delicate MMH*, "Docomomo Journal" 2021, Issue 64, pp. 66-73.
[29] *Ruth Verde Zein, Houses beyond manifestos, "Docomomo Journal" 2021, Issue 64, pp. 18-25.*
[30] S. S. Lagunes*, Casa Albero: an architecture experiment, "Docomomo Journal" 2021, Issue 64, pp. 74-79.*
[31] Richard Klein, *The Delcourt House: the last house by Richard Neutra*, "Docomomo Journal" 2021, Issue 64, pp. 50-57.
[32] https://www.iconichouses.org/# , access: 04.08.2024.
[33] https://www.wowhaus.co.uk/ , access: 04.08.2024.
[34] A Polish publishing house established in 1957, specializing in books on the theory and history of architecture and the visual arts, with a significant contribution to the popularization of architecture within the country.

architectural heritage from the former regime. A prominent example of such a series includes the architectural diaries titled '*Nowa Architektura Polska [The New Polish Architecture]*', compiled by Tadeusz Przemysław Szafer. These volumes provide a comprehensive overview of architectural developments between 1966 and 1980, enriched with commentary and analysis of architectural phenomena in Poland starting from 1945. Each volume in the series adheres to a consistent organizational structure, where the author categorizes the buildings based on their function, distinguishing among urban planning projects, infrastructure, healthcare, education, culture, and residential environments, among others. Within the sections dedicated to residential architecture, in addition to presenting large-scale housing estates and multi-family urban buildings, the diaries also highlight notable examples of private, single-family residential designs. For instance, the first volume published in 1972 includes Zbigniew Gądek's project of a private single-family house on a slope in Żegiestów, a vacation home in Kościelisko by Stanisław Karpiel, and a model of a private duplex house in Warsaw by Wojciech Zabłocki[35]. The 1979 edition's section on new residential architecture features mentions of architect Jan Szpakowicz's private house in Piaseczno-Zalesie Dolne, a single-family residence with a doctor's office by Wojciech Pietrzyk in Tarnów, a home with a studio in Kraków by Tadeusz Bereźnicki and Zbigniew Bielak, as well as an architectural concept sketch by Henryk Buszko and Aleksander Franta of three repeated single-family houses in Katowice[36]. The final diary in the series, published in 1981, provides a concise summary and photographic presentation of notable single-family residences, including Wojciech Pietrzyk's home in Kraków, Przemysław Gawor's design, also in Kraków, architectural drawings of a commissioned semi-detached house in Augustów by Idzi W. Łukasiewicz, two single-family houses by Romuald Loegler and Jacek Czekaj in Kraków, a model and design sketches for a single-family home by Adam Lisik in Szczyrk, and interior photos of architect Witold Lipiński's own home in Wrocław[37]. Besides this diary series, Tadeusz Przemysław Szafer published in 1988 a trilingual book entitled '*Współczesna architektura polska [Contemporary Polish Architecture]*', intended to review the development of Polish architecture since 1945[38]. Although it provides limited focus on private single-family homes, it includes color illustrations from the 1980s of the aforementioned residences, such as Witold Lipiński's house in Wrocław, a house by Romuald Loegler in Kraków, Wojciech Pietrzyk's residence in Kraków, and, published for the first time, architect Jadwiga Grabowska-Hawrylak's own house in Wrocław.

Similar to the aforementioned book publications, the monthly journal 'Architektura [Architecture]', which has been published since 1948 by the Association of Polish Architects (SARP), has provided a highly valuable contribution to documenting Polish architecture in the second half of the 20th century. The journal's primary aim was to present architectural competition projects and offer critical reviews of new developments within the country. In individual issues, particularly those from the 1960s and 1970s, one can also find press notes and graphic materials related to individual cases of single-family home projects commissioned by private investors. One particularly noteworthy issue, published in

[35] T. P. Szafer, *Nowa Architektura Polska*. *Diariusz lat 1966-1970* [New Polish Architecture. Diary from 1966-1970], Wydawnictwo Arkady, Warsaw 1972, pp. 29-33.
[36] T. P. Szafer, *Nowa Architektura Polska*. *Diariusz lat 1971-1975* [New Polish Architecture. Diary from 1971-1975], Wydawnictwo Arkady, Warsaw 1979, pp. 39-57.
[37] T. P. Szafer, *Nowa Architektura Polska*. *Diariusz lat 1976-1980* [New Polish Architecture. Diary from 1976-1980], Wydawnictwo Arkady, Warsaw 1979, pp. 59-75.
[38] T. P. Szafer, *Współczesna Architektura Polska / Contemporary Polish Architecture*, Wydawnictwo Arkady, Warsaw 1988.

1971, focused on the theme of single-family home architecture[39]. In the introduction to this edition, Andrzej Stasiak, who served as the issue's editor, emphasized the need to devote greater attention to the architecture of single-family houses. This issue featured, among others, individually commissioned projects such as a single-family residence in Kraków designed by Krzysztof Bień, an atrium house by architect Zbigniew Bać, and a two-family atrium house in Warsaw designed by Wojciech Zabłocki.

In the 1970s and 1980s, a series of book publications addressing the topic of single-family house architecture emerged in Poland. These included works by both Polish and foreign authors, typically from Czechoslovakia or Hungary, which were translated and adapted for a Polish audience. While in the case of the latter group, the houses presented were mostly foreign examples, the introductory sections and analytical texts on the issues surrounding single-family construction in contemporary contexts made these books invaluable sources of knowledge on the factors and conditions shaping single-family architecture. One such example is '*Nasz dom* [Our House]', published in Poland in 1982 as a translation of the original 1974 edition, which was expanded to include commentary on Polish circumstances[40]. Among publications by Polish authors, notable examples include '*Domki jednorodzinne* [Single-family Houses]' by Jacek Nowicki[41] and a monograph by Hanna Adamczewska-Wejchert[42], in which the author discusses the situation of single-family housing in Poland and presents several examples of Polish atrium houses.

Useful as well were compilations in the form of catalogs featuring typical house designs from the PRL era, available both in nationwide and regional editions. Although the designs of these typical houses themselves are not the subject of research, the introductory texts at the beginning of these catalogs provide valuable information on topics such as investment conditions for private investors. Examples of catalogs containing such introductory sections include those published in 1977[43], 1979[44], and 1983[45].

In the 1990s, alongside the country's progressing economic transformation following the political transition, the topic of architecture from the Polish People's Republic era had not yet been widely addressed by researchers. While in 1994 Adam Miłobędzki made an initial attempt to assess the architectural heritage of the previous era and introduced the term 'socmodernism' to Polish literature, there remained significant temporal proximity to the period, which continued to evoke hesitant associations with the subject[46]. However, at the turn of the 21st century, interest in Polish architecture

[39] "Architektura [Architecture]" 1971, No. 3, Vol. XXV, Warsaw: Arkady.
[40] I. Spiska, I. Hojsik, V. Moravcik, J. Valasek, Z. Sudek (orig.); M. Wiechowska-Krzyżan (ed. Polish version), *Nasz Dom* [Our House], Wydawnictwo Arkady, Warsaw 1982.
[41] J. Nowicki, *Domki jednorodzinne* [Single-family Houses], Wydawnictwo Arkady, Warsaw 1972.
[42] H. Adamczewska-Wejchert, *Domy atrialne. Jeden z typów jednorodzinnego budownictwa zespolonego* [Atrium Houses: A Type of Clustered Single-Family Housing], Państwowe Wydawnictwo Naukowe, Warsaw and Łódź 1978.
[43] *Album projektów domów jednorodzinnych do powszechnego stosowania. Seria 77* [Single-family house design album for general use. Series 77], Wydawnictwo Arkady, Warsaw 1977.
[44] *Zestaw projektów budownictwa jednorodzinnego dla województwa bielskiego* [Set of single-family housing projects for the Bielsko Province], Wojewódzkie Biuro Projektów, Bielsko-Biała 1979.
[45] *Krajowy zestaw projektów domów jednorodzinnych'83* [National set of single-family house designs'83], Wydawnictwo Arkady, Warsaw 1983.
[46] A. Miłobędzki, *The Architecture of Poland: A Chapter of the European Heritage*, International Culture Centre, Kraków 1994, pp. 120-124.

from 1945 to 1989 began to gradually increase. Andrzej Basista published '*Betonowe dziedzictwo* [Concrete Heritage]', the first attempt to provide a comprehensive overview of architecture and its conditions during the PRL era[47]. Particularly relevant to the subject of this dissertation is the chapter in Basista's book that characterizes construction projects commissioned by the private sector. Additionally, his insights regarding the possibilities for contact between Polish architects and Western countries at that time are useful. Another significant publication is a comprehensive review by Anna Cymer, who undertook the task of outlining the history of Polish architecture from 1945 to 1989, offering numerous references to the historical and political context[48]. Similarly, studies have emerged that focus on the architecture of this period on a regional scale, particularly for the Silesian Voivodeship and the city of Katowice. For the research described in this dissertation, these works are valuable for supplementing knowledge about architects active in the region, an important element of the regional scope of this study. The publication '*Reflektory (…)* [Reflectors…]', edited by Magdalena Żmudzińska-Nowak and Iga Herok-Turska, is a particularly valuable resource on the architecture and art produced in Upper Silesia during the PRL, especially as the topic is presented from an interdisciplinary perspective[49]. Aneta Borowik's book, in turn, organizes previously dispersed information on buildings constructed between 1945 and 1980 in Katowice and their creators[50]. Another interesting work is the monograph by Aleksandra Tomkiewicz, in which the author compares Katowice with the French cities of Saint-Étienne and Le Havre in the context of postwar spatial and architectural development[51].

It is also worth mentioning a collection of biographical monographs on architects active in the second half of the 20th century within the Silesian Voivodeship. In 2015, Tadeusz Barucki published a bilingual book titled '*Zielone Konie* [Green Horses]', in which he presented the biographies of architects Henryk Buszko, Aleksander Franta, and Jerzy Gottfried, along with a discussion of their architectural work[52]. Additionally, notable publications on the profiles and professional achievements of architects have been released by the Institute of Architectural Documentation at the Silesian Library in Katowice. These include '*Jerzy Gottfried – Architekt*'[53], '*Jurand Jarecki – Architekt*[54]', and '*Stanisław Kwaśniewicz – Architekt*'[55].

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[47] A. Basista, *Betonowe dziedzictwo. Architektura w Polsce w czasach komunizmu* [Concrete Heritage. Polish Architecture in Communist Era], Wydawnictwo Naukowe PWN, Warsaw 2001.

[48] A. Cymer, *Architektura w Polsce 1945-1989* [Architecture in 1945-1989 Poland], Centrum Architektury and Narodowy Instytut Architektury i Urbanistyki, Warsaw 2019.

[49] M. Żmudzińska-Nowak, I. Herok-Turska (eds.) *Reflektory. Interdyscyplinarne spojrzenie na dziedzictwo architektury Górnego Śląska drugiej połowy XX wieku* [Reflectors. An interdisciplinary perspective on the architectural heritage of Upper Silesia in the second half of the 20th century], Biblioteka Śląska, Katowice 2017.

[50] A. Borowik, Nowe Katowice. Forma i ideologia polskiej architektury powojennej na przykładzie Katowic (1945-1980) [New Katowice: Form and Ideology of Polish Post-War Architecture Exemplified by Katowice (1945–1980)], Neriton, Warsaw 2019.

[51] A. Tomkiewicz, *Determinanty modernizmu w rozwoju przestrzennym Katowic na tle przykładów europejskich* [Determinants of Modernism in the Spatial Development of Katowice in Comparison with European Examples], Wydawnictwo Politechniki Śląskiej, Gliwice 2016.

[52] T. Barucki, *Zielone Konie / Green Horses*, Salix Alba, Warszawa 2015.

[53] I. Herok-Turska (ed.), *Jerzy Gottfried – Architekt*, Biblioteka Śląska w Katowicach, Katowice 2016.

[54] I. Herok-Turska (ed.), *Jurand Jarecki – Architekt*, Biblioteka Śląska w Katowicach, Katowice 2018.

[55] M. Malanowicz, M. Żmudzińska-Nowak (ed.), *Stanisław Kwaśniewicz – Architekt*, Biblioteka Śląska w Katowicach, Katowice 2023.

The examples of publications mentioned above constitute a significant contribution to the knowledge of Poland's architectural heritage from the communist era, both on a national scale and within the Silesian Voivodeship. However, the topic of private single-family house architecture is either only briefly mentioned when discussing the architectural output of individual architects or entirely omitted. The only publication that directly addresses the topic of houses designed on commission for private clients during the PRL period is '*Słynne wille Polski* [The Great Villas of Poland]', edited by Ryszard Nakonieczny[56]. Although this book covers the period from the 15th century to the 21st century, it includes a dedicated chapter on single-family houses built in Poland during the communist era. This chapter discusses seven notable individual houses across the country: the single-family house of architect Witold Lipiński in Wrocław, architect Jadwiga Grabowska-Hawrylak's own house in Wrocław, a single-family house by Zbigniew Gądek in Kraków, a house by Wojciech Pietrzyk in Kraków, architect Jan Szpakowicz's house in the Piaseczno-Zalesie Dolne district, and two single-family houses in the Silesian Voivodeship: a house designed by Jurand Jarecki in Katowice and a house by Henryk Buszko and Aleksander Franta for General Jerzy Ziętek in Ustroń.

Among works addressing the topic of single-family house architecture, Zuzanna Napieralska's research stands out. In her 2017 doctoral dissertation, she analyzed the historical and legal context associated with single-family housing, focusing on examples of compact, cooperative, and association-based developments in Wrocław[57]. The same author also published an article examining Polish examples of experimental single-family housing from the 1960s and 1970s in the areas of Wrocław and Warsaw[58].

1.3. Issue of the 20th century heritage protection

The issue of preserving 20th-century architectural heritage has been addressed in a considerable amount of works, which collectively emphasizes the importance of safeguarding this heritage through practical maintenance strategies, theoretical frameworks, and collaborative research initiatives. These studies recognize both the technical challenges posed by modern materials and the need for context-sensitive methodologies that address the regional, historical, and ideological aspects of modern architectural heritage. A helpful overview of the state of knowledge on the preservation of modern architecture is provided by Stefania Landi in her book '*Grain Silos from the Thirties in Italy: Analysis, Conservation, and Adaptive Reuse*'[59]. In addition to presenting various possible conservation approaches, Landi discusses the most essential documents and guideline packages relating to architectural heritage conservation in general, such as the *Venice Charter*[60], the *Burra Charter*[61], and

[56] R. Nakonieczny (ed.), *Słynne wille Polski* [The Great Villas of Poland], Foibos, Praha 2013.
[57] Z. Napieralska, *Zabudowa jednorodzinna Wrocławia z lat 50-tych – 80tych XX wieku* [Single-family housing in 1950s-1980s Wrocław], Doctoral Thesis, Wrocław Univeristy of Technology, Wrocław 2017.
[58] Z. Napieralska, *Eksperymentalne domy jednorodzinne lat 60' i 70' w Polsce* [Experimental Single-Family Houses of the 1960s and 1970s in Poland], „Teka Komisji Architektury i Urbanistyki Studiów Krajobrazowych PAN" 2015, No. 3., pp. 66-74.
[59] S. Landi, *Grain Silos from the Thirthies in Italy. Analysis, conservation and adaptive reuse,* Pisa University Press, Pisa 2021.
[60] *Venice Charter: International Charter for the Conservation and Restoration of Monuments and Sites*, Venice: ICOMOS, 1964.
[61] *Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*, Burra: Australia ICOMOS, 1979 (revised 2013).

the *Nara Document*[62]. In the context of 20th-century heritage, she highlights the significance of the ICOMOS document '*Madrid-New Delhi Document – Approaches to the Conservation of Twentieth-Century Cultural Heritage'*[63].

Among publications on this topic, several works stand out, originating from a series of thematic conferences and partially presenting conclusions reached during expert panels. An example is '*From Postwar to Postmodern – 20th Century Built Cultural Heritage'*[64]. This document, developed from discussions at the 6th Baltic Sea Region Cultural Heritage Forum, addresses broader, more theoretical aspects of 20th-century heritage preservation, particularly within the Baltic region. It highlights the ideological and cultural significance of postwar architecture and calls for integrated conservation practices. Key challenges discussed include adapting preservation methods to experimental materials and rapidly evolving urban landscapes. A second example of such a comprehensive study is '*The Twentieth-Century Historic Thematic Framework'*[65]. Developed by the Getty Conservation Institute, this publication provides a structured approach for evaluating 20th-century heritage sites, emphasizing social, technological, and political forces that shaped modern architecture. The framework categorizes key themes, such as urbanization, technological progress, and environmental conservation, guiding heritage professionals in identifying sites of significance based on historical and cultural themes rather than solely architectural style. Crucial for advancing knowledge on the conservation of 20th-century heritage is the book '*Time Frames: Conservation Policies for Twentieth-Century Architectural Heritage'*[66]. This monumental publication provides an in-depth exploration of modern architectural preservation, bringing together an international team of experts who address the unique challenges of conserving modernist buildings and urban landscapes, supported by case studies and policy frameworks from around the world. This interdisciplinary work offers essential insights into cultural, technical, and policy aspects vital for understanding and protecting 20th-century architectural heritage globally.

Also noteworthy are shorter publications in the form of articles. Susan MacDonald, Sheridan Burke, Sara Lardinois, and Chandler McCoy outline the objectives and progress of the Getty Conservation Institute's Conserving Modern Architecture Initiative (CMAI)[67], for example. The authors detail CMAI's multi-faceted approach, which includes the development of practical conservation solutions, scientific research, training, and collaboration with international partners. Field projects, such as conservation efforts at the Salk Institute and the Eames House, illustrate CMAI's methodology in addressing issues of material degradation and preserving structural integrity.

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[62] *Nara Document on Authenticity*, Nara: ICOMOS, 1994.
[63] *Madrid-New Delhi Document: Conservation of 20th Century Heritage – Madrid Document 2011 and New Delhi Addendum 2017*, Madrid and New Delhi: ICOMOS International Scientific Committee on 20th Century Heritage, 2017.
[64] Baltic Sea Region Cultural Heritage Forum, *From Postwar to Postmodern – 20th Century Built Cultural Heritage*, Swedish National Heritage Board, Stockholm 2017.
[65] S. Marsden and P. Spearritt (eds.), *The Twentieth-Century Historic Thematic Framework: A Tool for Assessing Heritage Places*, Getty Conservation Institute, Los Angeles 2021.
[66] U. Carughi, M. Visone, *Time Frames: Conservation Policies for Twentieth-Century Architectural Heritage,* Routledge, London 2017.
[67] S. MacDonald, S. Burke, S. Lardinois, and C. McCoy, *Recent Efforts in Conserving 20th-Century Heritage. The Getty Conservation Institute's Conserving Modern Architecture Initiative*, "Built Heritage" 2018, vol. 2., pp. 62–64.

In recent years, publications have emerged presenting individual case studies of single-family houses from the latter half of the 20th century. In these studies, researchers not only showcase findings from archival research but also detail the processes of documentation, digitalization, and conservation guidelines using contemporary tools. For example, three significant publications in the *Do.co.mo.mo Journal* address the conservation processes of post-war single-family homes. These articles examine buildings in France (a house designed by André Wogenscky)[68], Greece (a home based on a concept by Matti Suuronen)[69], and Australia (a house designed by Iwan Iwanoff)[70]. The French case is especially interesting, as it discusses not only conservation but also the potential for making such architectural heritage accessible to the wider public. Examples of such work include the article by a six-member research team, '*Analysis and Definition of Restoration Strategies with H-BIM Applications: The Case Study of Vittorio Giorgini's "Casa Esagono" in Baratti, Italy'*[71], as well as an article by the author of this dissertation, in collaboration with Magdalena Wałek, which presents the digital documentation process of General Jerzy Ziętek's villa in Ustroń[72].

It should be emphasized that an equally important factor is the promotion of architectural values and best practices for the maintenance and potential conservation of buildings representing this heritage among homeowners. An example of a publication directly addressing the conservation and upkeep of single-family homes from the latter half of the 20th century is '*A Guide to Maintaining Your Mid-Century Modern Home'*[73]. This guide, issued by the Cleveland Restoration Society, focuses on the practical aspects of preserving mid-century homes, particularly in terms of maintenance and material conservation. Its aim is to educate homeowners on the importance of these architectural features and provide guidelines to ensure their preservation, emphasizing routine care and historically informed repair strategies.

[68] A. Aulus, André Wogenscky and Marta Pan's House Workshop: Thoughts on Conservation and Museography, "Docomomo Journal" 2016, No. 1, Issue 54, pp. 82-85.
[69] E. Stamatopoulou, M. Karoglou, A. Bakolas, *THE FUTURO HOUSE IN LIMNI, CORFUA. Living Space*, "Docomomo Journal" 2022, Issue 66, pp. 68-74.
[70] S. Robertson, N. Boyd, *Paganin House: a risen phoenix*, "Docomomo Journal" 2021, No. 1, Issue 64, pp. 59-65.
[71] D. Ulivieri, S. Landi, C. Pardini, M. G. Bevilacqua, M. Martino, M. Del Francia, *Analysis and Definition of Restoration Strategies with H-BIM Applications. The Case Study of Vittorio Giorgini's "Casa Esagono" in Baratti, Italy',* "Architecture Civil Engineering Environment" 2022, No. 4, pp. 73-80.
[72] J. Bródka, M. Wałek, *Digital Survey of the Late 1960's Villa in Ustroń: Creating a Virtual Model of a Heritage Site of Polish Post-War Modernist Architecture*, "Architecture Civil Engineering Environment" 2022, No. 3, pp. 13-22.
[73] Cleveland Restoration Society, *A Guide to Maintaining Your Mid-Century Modern Home*, Cleveland 2017.

2. State of archival sources

Archival research formed the second core of the state-of-knowledge study. This research was divided into two areas: the study of publicly available materials (found in institutional and municipal archives) and the examination of restricted-access materials (located in private collections).

2.1. Publicly available materials

Publicly available materials refer to documents and records that are accessible to the general public, housed in institutional or municipality-managed archives. The first group consists of legal acts from the Polish People's Republic (PRL), understood as primary source materials, which in the past regulated the legal conditions for construction and architectural guidelines. The second group of documents consists of project documentation for the studied buildings, in the form of folders or binders containing descriptions, technical drawings, and administrative documentation.

- **Legal acts from the PRL (Polish People's Republic) period**

The first step in conducting the archival query was identifying institutions and resources that provide access to legal acts from the PRL period. Particularly helpful were the resources available in online databases, which include both full texts of laws and government guidelines on construction that were in effect from 1945 to 1989. Two portals were utilized: *'Szukaj w Archiwach*' ['Search the Archives'][74], provided by the National Archives Administration, and the *'Internetowy System Aktów Prawnych*' ['Internet System of Legal Acts'][75], administered and edited by a team of specialists at the IT Center of the Polish Parliament Chancellery, as part of the Parliament's Information System. These databases, being managed by state authorities, constituted the most reliable source of primary materials.

- **Project documentation available in public archives**

Due to the specific nature of the buildings under study, which are private properties, their project documentation is not available in State Archives branches or online archival search engines. To obtain access to this documentation, a series of archival queries was conducted in municipal and district building archives: the Archives of the Katowice City Office, the Archives of the Gliwice City Office, the Archives of the Tychy City Office, the Archives of the Bielsko-Biała City Office, the Archives of the Sosnowiec City Office, and the Cieszyn District Office. Another location where an expanding collection of materials donated by architects or their relatives (including single-family house projects) is available is the Archives of the Institute of Architectural Documentation at the Silesian Library in Katowice[76].

2.2. Restricted-access materials

Restricted-access materials are understood as those originating from the private collections of architects or their relatives, as well as from the private collections of the owners of the studied houses.

[74] Access on-line: https://www.szukajwarchiwach.gov.pl/
[75] Access on-line: https://isap.sejm.gov.pl/
[76] During the preparation of this dissertation, the ownership status of some archival materials changed, as architects or their relatives decided to donate private collections to the Archives of the Institute of Architectural Documentation. The author of this dissertation, who is also an employee of the Institute, coordinated most of these transfers while simultaneously cataloging the materials.

These include **previously unpublished and not available in public archives**: conceptual diagrams, sketches and architectural drawings, photographs of buildings during construction and immediately after completion, models, and photographs of models. These materials also include source materials in the form of oral testimonies and interviews, which were an integral part of the archival query in private collections. With the kind permission of the interviewees, the author was able to record their narratives in audio form, which later proved to be a valuable resource during the analysis of surveyed objects.

It is important to emphasize that, unlike the literature review, archival research was conducted in parallel with nearly all stages of the study, including the field research. Archival sources were continuously supplemented throughout the work stages planned in the detailed research phase, and in many cases, they were only discovered after extended searches within private collections.

- **Unpublished materials from private collections**

During the archival and field research, the author gained access to private collections through the courtesy of architects: Jerzy Gottfried, Jurand Jarecki, Ewa Dziekońska, Bożena Włodarczyk, Jerzy Witeczek, Ryszard Jurkowski and Adam Lisik. From the relatives of deceased architects, he obtained collections belonging to, among others, Wiktor Lipowczan and Mieczysław Król. Additionally, from the investors of the surveyed houses and their relatives, he acquired supplementary materials related to the work of Henryk Buszko, Aleksander Franta, Stanisław Kwaśniewicz, Leszek Leśnik, Ludwik Herok, Stanisław Niemczyk, Wiktor Lipowczan, and Zbigniew Weber.

- **Interviews**

The conducted interview was a crucial part of the archival query and reconnaissance of the studied houses. It was carried out among architects who were professionally active during the PRL period, their relatives, as well as the owners of the examined houses and their neighbors. The interview covered topics such as the factors and circumstances related to the design and investment of the buildings, potential modifications made to the project, design inspirations, the opinions of the investors and later residents regarding the appropriateness of the selected architectural solutions, and future plans related to the maintenance or remodeling of the building.

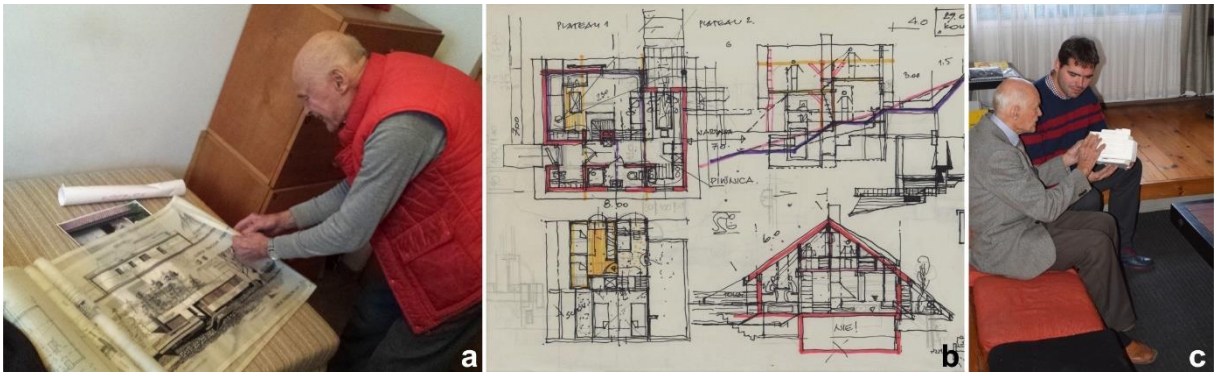

Fig. 4. Accessed through the courtesy of architect Jurand Jarecki's private collection: unpublished architectural and conceptual drawings [a-b]; the Author of this dissertation reviewing an archival model of a building designed by Jarecki while listening to his narratives [c]. Sources: photos by the Author [a-b]; photo by Dominika Śliwińska [c].

3. Conclusion of the State of knowledge part

The conducted research on the state of knowledge encompassed findings from both literature reviews and archival source studies. The literature review focused particularly on the state of knowledge regarding the architectural heritage of 20th-century single-family houses on a global scale and within Poland, with the latter concentrating exclusively on the period from 1945 to 1989. In parallel, the study of archival sources was divided into research on publicly available materials and restricted-access materials.

The state of knowledge concerning Poland's single-family residential architecture from the second half of the 20th century is notably limited. Among the existing literature, only one chapter in the book '*The Great Villas of Poland*' directly addresses this topic, while other studies merely reference such houses as supplementary mentions within broader architectural contexts. When compared to other European nations, Poland has a significant gap to bridge, both in terms of scholarly research and conservation efforts specific to its private residential architecture from this period. Another observation is that the architectural heritage of single-family houses has been far more extensively documented and studied in the United States and Western European countries (e.g., France, Germany) than in countries that were situated behind the Iron Curtain during the second half of the 20th century (e.g., Poland, the Czech Republic, Slovakia, Hungary). **Furthermore, Polish single-family houses from the communist era remain largely unknown internationally.** These residences have not been widely included in global architectural surveys or international publications, likely due to the lack of comprehensive Polish studies on the subject. This oversight highlights an opportunity for Polish architectural heritage to gain broader recognition through increased research, documentation, and international engagement in the future.

The archival research in this study comprises both publicly available materials and restricted-access private collections. Public archives include legal documents from the Polish People's Republic period, construction guidelines, and project documentation held in municipal offices. Additionally, private collections provided unique, unpublished materials such as sketches, photographs, and personal accounts from architects or their families, as well as interviews with architects, their families, and property owners, which further enriched the archival study**. This additional element of gathered source material proved especially valuable, while serving as a significant complement to publicly available sources**, which were, in some cases, either missing or incomplete within municipal and institutional archives.

The analysis of the current state of knowledge confirms the existence of a research gap, underscoring the relevance of this topic. Research on the heritage of modernist single-family homes in Poland is notably sparse, and initiatives concerning their preservation are essentially non-existent. This lack of scholarly attention and preservation activity highlights the need for comprehensive study and documentation in this field.

4. Clarification of terminology

This chapter provides a structured clarification of the key terms and concepts used throughout the dissertation. The definitions are organized into several thematic groups to ensure clarity and consistency. The first section, Key Terms, outlines the fundamental vocabulary essential for understanding the main thematic framework. Following this, *Defining Issues Related to Urban Spatial Organization* addresses the expressions relevant to the planning and structuring of residential areas. The third section, *Defining the Typologies, Descriptive Methods, and Elements of Buildings*, focuses on the classification and analysis of building types and their components. Lastly, *Defining Issues Related to Built Heritage Protection* examines the terminology associated with the preservation and conservation of the architectural heritage. The terms within these thematic groups are not arranged alphabetically but are instead organized according to the established principle: based on the subject matter of the issue and its level of specificity.

Single-family house

A residential building designed for the habitation of a single household, with the potential for its inhabitants to conduct professional activities within the premises. It is typically **detached** (stands independently without sharing walls with other residences), though it can also include semi-detached homes (sharing one wall with another unit) or row houses as long as each unit remains structurally and functionally independent.

The above definition adopted in this dissertation is supported by definitions from both contemporary and historical legal acts. In the Polish legal system, the binding definition of a single-family residential building states that it is a *building in detached, semi-detached, row, or group development, serving residential purposes, constituting a structurally independent unit, in which no more than two **residential premises**, or one residential and one **commercial premises** with a total area not exceeding 30% of the total area of the building, are allowed to be separated*[77]. In turn, the legal acts in Poland between 1945 and 1989 defined a single-family house differently; however, it should be noted that this definition underwent changes (as described in Chapter 3, General Research part). For example, in the 1950s, the legal definition additionally specified the user of the house, describing the house as a residential structure designed for occupancy by only one household or family[78].

Individual house

A term synonymous with a ***detached house***; a freestanding residential building that is not physically connected to any other house or structure[79].

[77] *The Building Law*, Act of July 7, 1994 . The Journal of Laws of 1994, No. 89, Item 414, article 3.
[78] *Decree on the provision of immovable agricultural property by the State for residential purposes and for the construction of individual single-family houses*. The Journal of Laws of 1952, No. 49, Item 32, Article 2.
[79] B. Nieroda, W. Gwizdak, *Wolno i niewolno stojący* [*Free- and notfreestanding*], „Prawo – defekty prawa inwestycyjnego / Zawód Architekt" 2019, vol. 70., pp. 88-91.

Individual architecture

Unique, customized architectural designs that are tailored to specific preferences of the client or site conditions, unlike standardized architectural projects[80].

Late-modern

A term synonymous with ***Late Modernist***; refers to a phase of Modernism that developed globally from the late 1940s to the 1980s[81]. This period is generally marked by an evolution of earlier modernist architectural principles, but with a more pronounced focus on technological advancements, structural innovation, and emerging aesthetic expressions[82].

In the context of the research presented in this dissertation, the term *Late-modern* is understood in Poland's historical context as a **stylistic movement originating in 1957**, associated with the political thaw of that period.

Silesian Voivodeship

A local government and administrative current division of Poland, with the seat of the provincial authorities in the city of Katowice[83]. Located in the southern part of the country, it encompasses the eastern part of Upper Silesia and the western part of Lesser Poland. he Silesian Voivodeship is the most urbanized region in the country, with the highest population density. It includes nationally significant metropolitan areas such as Bielsko, Rybnik, and Częstochowa, as well as the Upper Silesian-Zagłębie Metropolis, a structure of European significance[84].

Historically, between 1945 and 1999, the administrative division of the area of today's Silesian Voivodeship underwent changes, consisting of smaller former administrative units, such as the Katowice Voivodeship, Bielsko Voivodeship, and Częstochowa Voivodeship[85].

Polish People's Republic

[Pl.: *Polska Rzeczpospolita Ludowa*, PRL]; A term referring to the period of Polish history between 1947 and 1989, during which Poland was a socialist state under the control of the Polish United Workers' Party (PZPR), functioning as a satellite state of the Soviet Union[86]. This era was marked by a one-party system, a centrally planned economy, and significant political and social changes, which shaped the country's post-war trajectory.

Between 1945 and 1947, Poland was in a transitional political state following World War II, during which time the country shifted from a wartime provisional government towards becoming a

[80] A. Ballantyne, Architecture: a Very Short Introduction, Oxford University Press, Oxford 2002, p. 79.
[81] C. Jencks, *Architektura późnego modernizmu i inne eseje* [Late-Modern Architecture and Other Essays], Wydawnictwo Arkady, Warszawa 1989, pp. 10-11.
[82] K. Frampton, *Modern Architecture: a Critical History*, Thames & Hudson, London 2007, p. 298.
[83] M. Góralczyk, E. Panasiuk, M. Przybyła, *Śląskie Voivodeship Statistically. History and Present*, Statistical Office in Katowice. Silesian Centre for Regional Surveys, Katowice 2018, p. 26.
[84] M. Góralczyk, E. Panasiuk, M. Przybyła, *Śląskie Voivodeship Statistically*...op. cit., p. 27-28.
[85] A. Dziuba, *Województwo katowickie w Polsce Ludowej* [Katowice Voivodeship in Polish People's Republic], EWOŚ - Encyklopedia Województwa Śląskiego [access on-line, https://ibrbs.pl/].
[86] S. Weremiuk, *Specyfika stosunków polsko-radzieckich w latach 1944-1991* [The Specificity of Polish-Soviet Relations from 1944 to 1991], „Przegląd Bezpieczeństwa Wewnętrznego" 2014, Vol. 6., No. 11, p. 45.

socialist state under communist control[87]. While officially it was still the Republic of Poland, this period laid the groundwork for the establishment of the Polish People's Republic (PRL) in 1947, aligning the country with Soviet influence.

Residential estate

A term synonymous with a ***Residential complex***; A comprehensively planned development where the layout of transportation networks, architectural design of residential building groups, and functional program are integrated to create a cohesive environment for residents[88]. It typically includes basic local services, such as shops and educational facilities.

Residential development

A comprehensively planned development of the layout of transportation networks, which serves defined building plots that do not have a fully planned architectural and functional concept for residential development[89]. Often, the residential development may consist of unrelated clusters of several coherent multi-family buildings, between which other residential buildings, such as private single-family houses, were constructed at different periods of time on a grid of streets laid out by planners.

Suburban development

An expansion of residential areas located on the outskirts of urban centers and cities, typically characterized by low-density housing in a form of single-family houses. A suburban development is a more specific form of **residential development** that focuses on low-density housing in the suburbs, while residential development includes all housing types across various urban and suburban settings[90]. Suburban development, particularly in the case of Poland, is often chaotic and has not been subject to detailed planning regarding the layout of transportation networks[91]. As noted by Jan Minorski, the disorganization of newly emerging single-family residential developments in the suburbs results from uncontrolled transformations of former agricultural areas[92].

Recreation development

Facilities, resorts, or infrastructure designed specifically for leisure, relaxation, and entertainment. These developments are often located in natural environments, such as near coastlines, mountains, lakes, or forests, and cater to individuals seeking outdoor activities or wellness experiences. In the context of the expansion of private residential development, this type of construction must align

[87] A. Gella, *Zagłada Drugiej Rzeczypospolitej 1945-1947* [The Demise of the Second Polish Republic, 1945-1947], CB Agencja Wydawnicza, Warszawa 2021, p. 11.
[88] W. Czerny, *Architektura Zespołów Osiedleńczych* [Architecture of Residential Complexes], Wydawnictwo Arkady, Warszawa 1972, pp. 142-143.
[89] W. Czarnecki, *Podstawy urbanistyki i architektury: Skrypty* [Fundamentals of Urban Planning and Architecture: Studies], Wydawnictwo Politechniki Białostockiej, Białystok 1989, p. 76.
[90] W. Czerny, *Architektura Zespołów Osiedleńczych*... op. cit., p. 169.
[91] H. Adamczewska-Wejchert, *Domy atrialne* [Atrium Houses], Państwowe Wydawnictwo Naukowe, Łódź 1978, pp. 10-12.
[92] J. Minorski, *Samorzutne budownictwo mieszkaniowe ze środków własnych ludności na przedmieściach Warszawy* [Spontaneous residential construction funded by local residents on the outskirts of Warsaw], Materiały PAN, Warszawa 1964, p. 29.

in form and aesthetics with specific requirements related to the area's natural or therapeutic qualities[93].

Residential premises within a single-family house

A structurally self-contained unit within a single-family house, consisting of a room or a set of rooms separated by permanent walls, specifically designed and suitable for permanent human habitation. Within a single-family house, there may be a maximum of two residential premises, or one residential and one **service premises**[94].

The above definition adopted in this dissertation is based on Polish legal acts. According to the Polish Act on the Ownership of Premises of June 24, 1994, Article 2 defines a residential premises as: *'A self-contained residential unit is a room or a group of rooms separated by permanent walls within a building, intended for the residence of people, which together with auxiliary spaces serve to satisfy housing needs'*[95]. regulation allowed for the design of single-family houses with up to **two residential premises**.

Furthermore, during the period of the Polish People's Republic (PRL), a residential premises was legally defined as a set of living rooms together with auxiliary spaces, which did not require the use of any facilities located in other premises for habitation purposes[96]. Regarding the issue of the possible number of residential units included within a single-family house, regulation of February 4, 1959 allowed for the design of single-family houses with up to **two residential premises**, particularly when intended for occupancy by related families or multi-generational households[97].

Service premises within a single-family house

A unit within a single-family house restricted to 30% of the building's **usable floor area**, specifically designated for professional or service purposes.

Although there is no precise definition of a service premises in Polish legislation, the definition adopted in this dissertation, in the context of single-family housing, has been formulated based on the Building Law and the definition of a single-family house, which permits the inclusion of a service premises within its structure[98].

However, it should be noted that during the period of the Polish People's Republic (PRL), the exact percentage of space that a service premises could occupy was not specified; this was legally defined only in the 1990s. In the 1950s, the principles governing the conduct of craft activities in single-family houses were regulated by the Decree on Crafts of February 2, 1955. This decree permitted

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[93] J. Mokrzyński, *Architektura wolnego czasu* [Leisure architecture], Wydawniwctwo Arkady, Warszawa 1990, p. 19.

[94] Based on the legal definition of a single-family house: *The Building Law*, Act of July 7, 1994 . The Journal of Laws of 1994, No. 89, Item 414, article 3.

[95] *Polish Act on the Ownership of Premises*, Act of June 24, 1994. The Journal of Laws of 1994, No. 85, Item 388, Article 2.

[96] *Act on the Rental of Residential Premises and Housing Allowances*, Act of May 28, 1954. The Journal of Laws of 1954, No. 27, Item 98.

[97] *Regulation on the Technical Conditions to be Met by Residential Buildings*, Regulation of February 4, 1959. The Journal of Laws of 1959, No. 17, Item 94.

[98] Based on the legal definition of a single-family house: *The Building Law*, Act of July 7, 1994 . The Journal of Laws of 1994, No. 89, Item 414, article 3.

the operation of small-scale craft and service activities within a house, provided that appropriate permits were obtained and that technical and sanitary requirements were met[99]. Furthermore, the Act of January 31, 1961, allowed the inclusion of premises intended for purposes other than residential within residential buildings, on the condition that it did not compromise the primary function of the building and did not cause inconvenience to the residents and the surrounding environment[100]. In contrast to the contemporary definition of a service premises within a single-family house (where such a space occupies no more than 30% of the house's total area) during the period of the Polish People's Republic (PRL), legislation allowed for the expansion of a house's usable floor area by up to an additional 30 square meters of **professional floor area**[101]. This additional space was designated for professional, craft, or service purposes[102].

Floor arrangement of a building

A structural organization and distribution of floors within a building. It encompasses the spatial configuration, vertical circulation, and functional layout of each floor, including the relationship between different levels.

In the context of basic building types, two primary categories can be distinguished: a **single-story building** and a **multi-story building**[103]. A specific case of a multi-story building is the **split-level building**.

Single-storey building

A building that consists of only one floor level, with all functional areas located on a single horizontal plane. Vertical circulation (stairs or elevators) is not required, and all rooms and spaces are easily accessible on the same level.

Multi-storey building

A building that includes two or more floors. Vertical circulation elements like stairs or elevators are essential for moving between the different levels.

Split-level building

A building where the floor levels are staggered, creating half-levels that are connected by shorter flights of stairs distributing functional spaces across multiple levels[104].

[99] *Decree on Crafts*, Decree of February 2, 1955. The Journal of Laws of 1955, No. 6, Item 32.
[100] *The Building Law*, Act of January 31, 1961. The Journal of Laws of 1961, No. 7, Item 46.
[101] This issue is discussed in detail in Part III of this dissertation (The *General Research*), Subchapter 3.1.
[102] *Regulation on the Conditions Required of Single-Family Houses*, Regulation of June 4, 1957. The Journal of Laws of 1957, No. 31, Items 130 and 131.
[103] E. Neufert, P. Neufert, *Architect's Data* (4th Edition), Wiley-Blackwell, Hoboken 2012, pp. 30-32.
[104] Based on the definition provided by E. and P. Neufert: E. Neufert, P. Neufert, *Architect's Data*...op. cit., pp. 36-37.

Usable space

A term referring to separate rooms or spaces within a building that were specifically designed and intended for regular use by inhabitants and which must have a minimum ceiling height of 220 centimeters (cm).

The above definition adopted in this dissertation was based on both the Polish People's Republic (PRL) building regulations[105] and and those currently in force[106].

Usable Floor Area

The total floor area of all usable spaces within a building that are intended for permanent or temporary human occupancy and meet specific technical and functional requirements. It encompasses all spaces that directly serve the building's primary purpose, excluding areas occupied by structural elements and certain non-usable spaces.

Living Floor Area

Consisting solely of spaces specifically designated for living purposes. It includes rooms intended for daily living activities but excludes auxiliary and service areas that, while functional, do not serve as primary living spaces.

Areas included: Living rooms, bedrooms.

Areas excluded: Kitchens, bathrooms, toilets, utility rooms (e.g. laundry rooms, storage spaces), hallways, corridors, staircases, technical spaces (e.g. mechanical rooms, boiler rooms), and **professional floor area**.

The definitions of Living Floor Area and Usable Floor Area adopted in this dissertation were based on both the building regulations of the Polish People's Republic (PRL) and those currently in force. Among the most significant legal acts from the PRL period are the Regulation on the *Technical Conditions to be Met by Residential Buildings* from February 4, 1959, which defined the rules for calculating various types of floor areas in residential buildings, and the *Building Law*, Act of January 31, 1961, which refined these provisions[107].

Professional-use Area

The additional area that could be included in a single-family house beyond the standard maximum allowable usable floor area. This space was specifically designated for professional, craft, or service activities conducted by the inhabitants of the house.

[105] *Regulation on the Technical Conditions to be Met by Residential Buildings*, Regulation of February 4, 1959. The Journal of Laws of 1959, No. 17, Item 94.
[106] *Regulation on the Technical Conditions to be Met by Buildings and Their Location*, Regulation of April 12, 2002. The Journal of Laws of 2002, No. 75, Item 690. Based on: *The Building Law*, Act of July 7, 1994 . The Journal of Laws of 1994, No. 89, Item 414.
[107] *The Building Law*, Act of January 31, 1961. The Journal of Laws of 1961, No. 7, Item 46.

The professional (additional) floor area permitted an increase in the total usable floor area of a single-family house from the standard limit (110 m²) up to a maximum of 140 m², by allowing an extra 30 m² specifically for professional purposes[108].

This term is characteristic only of the period of the Polish People's Republic (PRL), having been defined in its legal acts. It first appeared in 1957 in the *Regulation on the Conditions Required of Single-Family Houses* and permitted this expansion to accommodate the needs of individuals practicing a profession within their home, provided that the professional activity did not detract from the building's primary residential function[109].

Total Floor Area

The sum of the floor areas of all levels of a building, measured along the external perimeter of the walls. This measurement includes the thickness of both internal and external walls and encompasses all spaces within the building.

Areas included: Usable and non-usable floor area, structural and non-structural walls, pillars and other construction elements.

The definition adopted in this dissertation is based on both the building regulations of the Polish People's Republic (PRL) and those currently in force, including the Polish Standard PN-ISO from 2015 which defines the space indicators[110].

Patio

An outdoor space adjoining a building, not enclosed on all sides by the walls (Fig. 5a).

A clear explanation of the concept can be found in the book '*Architecture: Form, Space, and Order'*, where various applications of patios are illustrated with drawing examples[111]. This is also corroborated in the work of Ernst and Peter Neufert, where the concept is defined in relation to the degree of enclosure of external space by the building's walls[112]. An interesting observation is presented in the book titled '*Kompakte Hofhäuser (…)'* [Compact Courtyard Houses. (…)], where the term 'patio' is considered equivalent to the concept of a '**semi-enclosed courtyard**'[113].

Courtyard

An outdoor space enclosed on at all sides by walls or buildings, located within the interior of a building structure (Fig. 5b).

While the book titled '*Courtyards: Aesthetic, Social, and Thermal Delight'* explains the general spatial and functional concepts of courtyards[114], a more detailed definition that includes the structural development of courtyard houses can be found in the book from late 1960s by Ot

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[108] This issue is discussed in detail in Part III of this dissertation (The *General Research*), Subchapter 3.1.
[109] *Regulation on the Conditions Required of Single-Family Houses,* Regulation of June 4, 1957. The Journal of Laws of 1957, No. 31, Items 130 and 131.
[110] *Performance Standards in Building*, PN-ISO 9836:2015, Polish Committee for Standardization 2015.
[111] F. D. K. Ching, *Architecture: Form, Space, and Order,* Wiley Publishers, New York 2014, pp. 56-61.
[112] E. Neufert, P. Neufert, *Architect's Data*...op. cit., p. 32.
[113] J. Cremers, P. Bonfig, D. Offtermatt, *Kompakte Hofhäuser. Anleitung zu einem urbanen Gebäudetyp* [Compact Courtyard Houses. Guide to an urban building type], Hochparterre, Zürich 2021, p.16.
[114] J. S. Reynolds, *Courtyards: Aesthetic, Social, and Thermal Delight,* Wiley & Sons, New York 2001, p. 17.

Hoffmann and Christoph Repenthin '*Neue Urbane Wohnformen. (...)'* [The New Urban Housing Forms (...)][115]. It should be noted that in Polish literature, due to the nature of the Polish language, the words 'Courtyard' and 'Atrium' are often linguistically and semantically merged into the term 'Atrium'. This is particularly noticeable in the works of Hanna Adamczewska-Wejchert, such as in her book titled '*Domy atrialne (...)'* [Atrium Houses (...)][116]. However, based on a review of English-language literature, the author of this dissertation has decided to adopt two separate meanings.

Atrium

A covered or semi-covered through a skylight space enclosed on all sides by walls or buildings, located within the interior of a building structure (Fig. 5c).

Despite the shared characteristics with the courtyard, the distinguishing element between these two types of spaces is the skylight roofing that characterizes the atrium. This difference has been demonstrated by Ernst and Peter Neufert[117]; this assertion has also been supported in a number of other works of a design manual nature and those concerning the definition of building elements, such as those authored by Richard Saxon[118] or edited by Bernard Leupen[119].

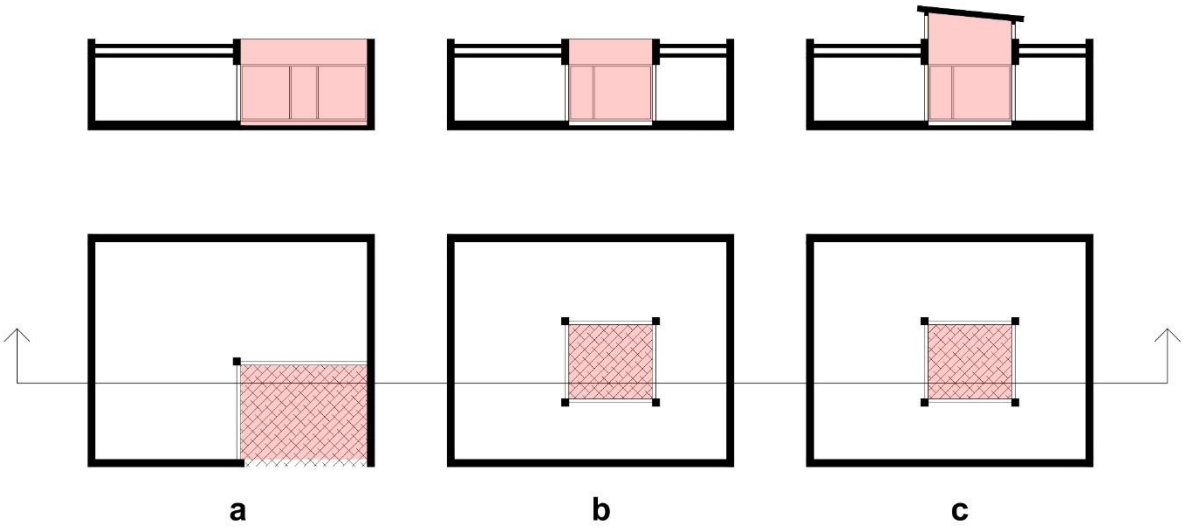

Fig. 5. Schematic drawing of the cross-section and floor plan of the house: with a Patio (a); with a Courtyard (b); with an Atrium (c). Prepared by the Author.

[115] O. Hoffmann, C. Repenthin, *Neue urbane Wohnformen. Gartenhofhauser, Teppichsiedlungen, Terrassenhauser* [The New Urban Housing Forms. Courtyard-garden houses, carpet housing estates, terraced houses], Bertelsmann Fachverlag, Darmstadt 1969, p. 33.
[116] H. Adamczewska-Wejchert, *Domy atrialne. Jeden z typów jednorodzinnego budownictwa zespolonego* [Atrium Houses. One type of single-family composite house], PWN, Warszawa 1978, pp.19-24.
[117] E. Neufert, P. Neufert, *Architect's Data*...op. cit., p. 30.
[118] R. Saxon, *Atrium Buildings: Development and Design,* Van Nostrand Reinhold, New York 1983, pp. 26-27.
[119] B. Leupen (ed.), C. Grafe, N. Kornig, M. Lampe, P. de Zeeuw, *Design and Analysis*, 010 Publishers, Rotterdam 1997, p. 120-121.

Roof Deck

A structural element in building construction that combines the functions of both a roof and a ceiling (Fig. 6a). In this system, the roof covering is applied directly over the structural deck, which also serves as the interior ceiling of the uppermost floor[120]. A roof deck can effectively serve as a terrace if designed with appropriate structural support, waterproofing, and safety measures.

Butterfly roof

A structure characterized by two roof surfaces sloping inward toward the center of the building, forming a V-shape[121] (Fig. 6b). The central valley created by the slopes is often used for rainwater collection.

Gable roof

A term synonymous with a **pitched roof**. It is a structure consisting of two sloping roof planes that meet at a central ridge, forming end walls with a triangular extension called a gable[122] (Fig. 6c).

Sched roof

A term synonymous with a **skillion roof.** It is a structure features a single sloping plane, often attached to a taller wall (Fig. 6d).

Clerestory roof

A structure consisting of two sloping roof planes that are joined together through a vertical wall[123]. This roofing type allows natural light to penetrate deep into the interior spaces while maintaining privacy and wall space below (Fig. 6e).

Saltbox roof

A structure featuring an asymmetrical design with one long, sloping roof plane extending down from the ridge to the rear of the building and a shorter roof plane on the front side[124] (Fig. 6f).

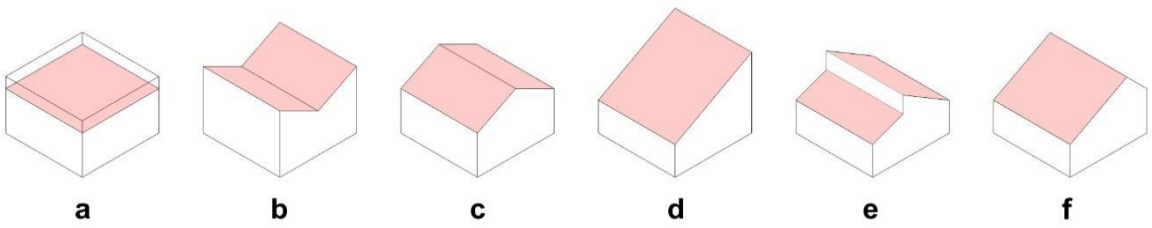

Fig. 6. Schematic drawing of the roof types: Roof Deck (a); Butterfly Roof (b); Gable Roof (c); Sched Roof (d); Clerestory Roof (e); Saltbox Roof (f). Prepared by the Author.

[120] K. Sedlbauer, E. Schunck, R. Barthel, H. M. Künzel, *Flat Roof Construction Manual*, Birkhäuser, Bazel 2010, p. 41.
[121] E. Neufert, P. Neufert, *Architect's Data*...op. cit., p. 23.
[122] E. Neufert, P. Neufert, *Architect's Data*...op. cit., p. 24.
[123] P. Tregenza, M. Wilson, *Daylighting: Architecture and Lighting Design*, Routledge, London 2011, p. 174.
[124] F. D. K. Ching, *Building Construction Illustrated* (5th Edition), Wiley & Sons, New York 2014, pp. 287-288.

Cultural heritage

A set of tangible and intangible assets inherited from past generations, maintained in the present, and passed on to future generations. It includes tangible cultural heritage such as buildings, monuments, landscapes, books, works of art, and artifacts, as well as intangible cultural heritage such as traditions, customs, languages, knowledge, and practices.

The division into tangible and intangible values was developed in UNESCO's works, which emphasized the importance of intangible heritage[125]. Jan Purchla also attempted to define the term, highlighting the importance of reinterpreting the past and cultivating memory in relation to the understanding of cultural heritage[126].

Architectural heritage

A term synonymous with a **built heritage.** A collection of buildings, structures, and urban or rural landscapes of historical, cultural, or artistic significance. It includes monuments, historic buildings, traditional dwellings, and other built environments that represent a society's architectural achievements and cultural identity over time.

The adopted definition is based on the one formulated in the 1985 Granada Convention[127].

Cultural Landscape

A geographical area that includes both cultural and natural elements, reflecting the interaction between humans and the environment over time. Protection efforts often focus on preserving the integrity of these landscapes.

The issue of interaction with nature mentioned in the adopted definition was highlighted in the works of the *European Landscape Convention* in Florence, which defines landscape as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'[128]. This broad definition encompasses both natural and cultural elements, making cultural landscapes an integral part of landscape protection and management.

Conservation

Actions aimed at maintaining and preserving the building's current state to prevent deterioration. The original function is often retained, although this is not a requirement. It prioritizes the protection of the building's authenticity with minimal alterations.

The definition of the term was explored by Jan Tajchman in his works, where he pointed out that conservation can be understood as the totality of actions aimed at highlighting, enhancing, or restoring the cultural values of objects, while ensuring optimal technical qualities that enable not

[125] UNESCO, *Convention for the Safeguarding of the Intangible Cultural Heritage*, Paris 2003, Article 2.
[126] J. Purchla, *Dziedzictwo kulturowe i reinterpretacja przeszłości* [Cultural heritage and the reinterpretation of the past], [in:] J. Hausner, A. Karwińska, J. Purchla (eds.), *Kultura a rozwój* [Culture and development], Narodowe Centrum Kultury, Warszawa 2013, pp. 35-38.
[127] Council of Europe, *Convention for the Protection of the Architectural Heritage of Europe (Granada Convention)*, Granada 1985, Article 1.
[128] Council of Europe, *European Landscape Convention*, Florence 2000, Article 1.

only their survival but also safe usage[129]. The explanation of the term can also be found in ICOMOS charters, including the Venice Charter of 1964[130] and the Burra Charter of 1979, revised in 2013[131].

Restoration

Actions aimed at returning the building to its original or a specific historical state, often removing later alterations. The goal is to recreate the original use or, at the very least, restore the building to its original design and appearance. It prioritizes historical accuracy and the recreation of the original aesthetic or function, frequently utilizing period-specific materials and techniques.

Particularly helpful in clarifying the term have been the works of Jan Tajchman[132] and Bogusław Szmygin[133]. In both cases, they emphasized not only the importance of correct methodology and craftsmanship during the conservation work, but also the minimization of external destructive factors that could endanger the object.

Adaptive reuse

A term synonymous with an **adaptation**. Actions aimed at repurposing the building for modern use while preserving key historic features. The original use is typically altered or replaced with a new function. It seeks a balance between preservation and modern functionality, often requiring creative solutions.

As noted by Jan Tajchman, any adaptive intervention on a historic building should be preceded by a detailed evaluation of each of its elements. Furthermore, care must be taken to ensure that newly introduced elements are clearly distinguishable from the original structure[134]. It can be noted that this remark refers to the provisions of the Venice Charter of 1964[135].

[129] J. Tajchman, *Konserwacja zabytków architektury – uwagi o metodzie* [Conservation of Architectural Heritage – Notes on the Method], Institute of History of Architecture, Wrocław 1989, pp. 120-124.
[130] ICOMOS, *International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter)*, Second International Congress of Architects and Technicians of Historic Monuments, Venice 1964, Articles 1 and 3.
[131] Australia ICOMOS, *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*, Burwood 2013, Articles 1.4 and 14.
[132] J. Tajchman, *Konserwacja zabytków architektury – uwagi o metodzie*...op. cit, pp. 127-128.
[133] B. Szmygin, *Teksty doktrynalne w ochronie dziedzictwa – analiza formalna i propozycje* [Doctrinal texts in heritage conservation - formal analysis and proposals], [in:] B. Szmygin, Współczesne problemy teorii konserwatorskiej w Polsce [Contemporary problems of conservation theory in Poland], Wydawnictwo Politechniki Lubelskiej, Lublin 2008, pp. 145-154.
[134] J. Tajchman, *Standardy w zakresie projektowania, realizacji i nadzorów prac konserwatorskich dotyczących zabytków architektury I budownictwa* [Conservation and Protection of Cultural Heritage in the Context of Modern Construction Techniques], Institute of History of Architecture, Wrocław 2016, pp. 16-20.
[135] ICOMOS, *International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter*...op.cit, Article 12.

III. General Research

1. General overview of global architectural trends in the first half the 20th century

The turn of the 19th and 20th centuries was a period of the formation of innovative trends in architecture. In the terminology of architectural history the guiding style of the first half of the twentieth century worldwide has been termed 'Modernism', which in turn has been divided into 'Early Modern' (conventionally covering the period from the turn of the nineteenth century to the end of the First World War in 1918) and 'High Modern' (from the end of the First World War until the late 1940s)[136]. Early Modernism developed its local variations, known as 'Jugendstil' in Germany, 'Die Secession' in Austria-Hungary, 'Cubism' in Czechoslovakia, 'Art Nouveau' in France or 'The Modern Style' in the UK, among others[137]. It was similar with the currents of High Modernism, understood as the entirety of phenomena emerging from the 1920s onward and standing at the forefront of architecture that drew inspiration from earlier epochs[138]. In Germany, an Expressionism partially inspired by Jugendstil developed, which evolved in a particularly interesting way in neighboring the Netherlands under the name 'Amsterdamse School'[139]. In contrast, the so-called 'Bauhausstil', whose name derives from the Weimar school of design founded in 1919 (located in Dessau from 1926 to 1933), provided the intellectual basis for the formation of Hight Modernism in the 1920s and 1930s worldwide[140]. In some countries, the Modernism has also acquired a propaganda function due to political considerations[141]. In Italy in the late 1920s and early 1930s was promoted under the name 'Italian Rationalism', and in the Soviet Union (USSR) as the 'Constructivist Movement'. However, it should be emphasized that in both of these examples of varieties of High Modern, architects used the same set of technical, spatial and aesthetic innovations in their work as were used in the other countries. The increasingly popular design philosophy prioritizing the function and utility of buildings over their artistic solutions derived from regional patterns quickly became known as 'Functionalism' and its transregional character was reflected as early as the early 1930s in the term 'The International Style'[142]. Modernism developed in distinct forms simultaneously outside Europe, including in the United States (e.g., the 'Prairie School'), and it also influenced European single-family residential architecture, as discussed later in this chapter.

[136] J. Wojtas, *Ewolucja znaczenia „modernizm" w architekturze* [Evolution of the meaning of 'Modernism' in architecture], [in:] Marciniak P., Klause G. (eds.), *Definiowanie modernizmu* [Defining the Modernism], Wydawnictwo Politechniki Poznańskiej, Poznań 2008, p. 352.
[137] D. J. De Witt, E. R. De Witt (eds.), *Modern architecture in Europe. A guide to buildings since the Industrial Revolution,* Weidenfeld and Nicolson, London 1987, pp. 18-22.
[138] I. Wisłocka, *Awangardowa architektura Polska 1918-1939* [Avant-garde architecture in Poland 1918-1939], Wydawnictwo Arkady, Warszawa 1968, p. 18.
[139] P. Gössel, G. Leuthäuser, *Architecture in the 20th Century*, Taschen, Köln 2020, pp. 182-184.
[140] W. J. R. Curtis, *Modern Architecture since 1900*, Phaidon Press, New York 1996, p. 113.
[141] K. B. Jones, S. Pilat (eds.), *The Routledge Companion to Italian Fascist Architecture. Reception and Legacy*, Routledge, New York 2020, p. 87.
[142] H. R. Hitchcock, P. Johnson, *The International Style: Architecture Since 1922*, W. W. Norton, New York 1932.

After World War II, the Modernism in architecture was continued, developed, or reinterpreted in most countries around the world[143]. In the context of the research planned in the study, it was therefore reasonable to attempt to characterize the development of single-family house architecture that also occurred globally in the first half of the 20th century. A preliminary literature review and analysis of examples have revealed that there is a group of several houses whose structural solutions, spatial arrangements, or artistic designs constituted a kind of innovation in residential architecture in the first half of the 20th century. The group of single-family houses from the years 1900-1945 presented in this section does not aim to provide a comprehensive overview of the subject. Some well-known works by the discussed designers have been omitted due to their limited degree of innovation or even the observed repetition of design solutions.

1.1. Determinants of architectural development

The historical context is a significant aspect of the issue. Its study allows for identifying the factors that influenced the evolution of private residential architecture in the first half of the 20th century. These factors can be classified into several groups, based on: social changes; possibilities for popularizing new architectural trends among investors and architects; new urban forms in cities and suburbs; technical and material capabilities.

- **Social changes and country policies**

The 19th-century Industrial Revolution had a significant impact on changes in the global social structure. With the development of industry, a new class of industrialists and entrepreneurs emerged, who profited from mass production. This group, along with the higher ranks of administrative and technical workers, formed the core of the modern middle class[144]. Its representatives had mostly incomes that allowed for the construction of single-family houses. One way to emphasize social status became owning a house with unique architectural solutions, which, at the beginning of the 20th century, led to an increased demand for individually designed buildings. The architects of these houses sought to respond to the societal changes occurring at the turn of the 19th and 20th centuries, particularly in the family structure. The dominant family model in Europe at the time became the two-generation family, consisting of parents and their children, replacing the previously common multi-generational households[145]. The popularization of electrical appliances, which automated many tasks and made household management easier, led to the progressive reduction of domestic staff in single-family homes as early as the first decade of the 20th century. As a result, the designed buildings saw a reduction in dedicated spaces for staff in favor of adapting utility rooms (such as kitchens and pantries) for broader family use. Kitchens began to be seen as a central, essential part of the home rather than a separate service area. In the 1920s, Margarete Schütte-Lihotzky developed the model of the so-called 'laboratory kitchen', which quickly gained popularity both in European countries and the United

[143] This phenomenon has been referred to as the late phase of modernism, or 'Late Modernism'. C. Jenks, *Architektura późnego modernizmu i inne eseje* [Late-Modern Architecture and Other Essays], Wydawnictwo Arkady, Warszawa 1989, pp. 10-11.

[144] G. Crossic, H. G. Haupt, *The Petite Bourgeoisie in Europe 1780-1914. Enterprise, Family and Independence*, Routledge, New York 1995, p. 116.

[145] T. K. Hareven, *Families, History And Social Change. Life Course And Cross-cultural Perspectives*, Routledge, New York 2000, pp. 198-201.

States[146]. The changes in the layout of new homes were also influenced by the growing importance of hygiene and public health, which translated into more comprehensive solutions for sanitary spaces and ensuring optimal sunlight and ventilation. Another social factor that accelerated changes in residential design was the experience of World War I. This not only reinforced the evolution of family structure that had begun at the turn of the century but also provided an argument for rejecting unnecessary, cost-increasing ornamentation in new buildings. Instead, investors and the architects they hired focused on functional, economic efficiency and a restrained aesthetic expression.

After World War I, Europe saw the dissolution of empires, including the Austro-Hungarian, Russian, Ottoman, and German empires, resulting in the creation of new nation-states such as Czechoslovakia, Poland, and Yugoslavia. These newly formed countries sought to assert their national identity through architecture[147]. This often led to the development of monumental public buildings and urban planning projects aimed at symbolizing the strength and independence of the new nations. In line with the growing promotion of modernist architecture in these countries, there was an increasing desire among individuals planning to build private houses to embody progressive architectural trends. Conversely, the rise of totalitarian regimes, especially in Italy (1922-1943) and Germany (1933-1945) had also a direct influence on architecture. Fascist and Nazi governments sought to use architecture as a tool of propaganda. In the example of Germany, the Nazis opposed the Bauhaus, both ideologically and aesthetically, viewing its modernist principles and avant-garde ideas as too progressive and internationalist for the Nazis, who favored traditional and monumental styles inspired by classical and nationalist ideals. After the Bauhaus was disbanded, many of its key figures, including Walter Gropius, Marcel Breuer and Mies van der Rohe fled the country[148]. These architects and designers sought refuge in other countries, particularly in the United States, where they helped spread Bauhaus ideas globally.

- **New urban forms**

At the turn of the 19th and 20th centuries, alongside advancing industrialization, a new form of settlement emerged: suburbs and villa estates. A key factor driving this development was the improvement of transportation infrastructure, particularly the expansion of railways and roads, which facilitated easier movement between cities and their peripheries. The increased efficiency of transport enabled the middle class to escape the crowded, polluted industrial cities and relocate to the quieter, greener suburbs[149]. In contrast to earlier trends, where villa construction was dominated by the aristocracy and large landowners, a new class of investors emerged at the turn of the century—the affluent middle class, including industrialists, merchants, and professionals. Unlike aristocratic estates, however, their properties were no longer associated with expansive parklands or agricultural estates. Suburban houses were more compact and situated on smaller plots, reflecting the changing needs and lifestyles of the growing middle class. Although some industrialist villas continued to be built near factories, particularly in the second half of the 19th century, by the beginning of the 20th century, most

[146] M. Bois, B. Reinhold (eds.), *Margarete Schütte-Lihotzky. Architecture. Politics. Gender.*, Birkhäuser Verlag, Basel 2023, p. 7.
[147] M. Kohlrausch, *Brokers of Modernity. East Central Europe and the Rise of Modernist Architects*, 1910-1950, Leuven University Press, Leuven 2019, pp. 66-68.
[148] M. Kentgens-Craig, *The Bauhaus and America. First contacts 1919-1936*, MIT Press, Cambridge, Massachusetts, 1999, p. 37.
[149] R. McManus, P. J. Ethington, *Suburbs in transition: new approaches to suburban history*, "Urban History" 2007, Vol. 34, Issue 2, pp. 317-337.

new developments had shifted to the suburbs. Life there offered greater comfort and a respite from the nuisances of city living, emerging as a key catalyst for urbanization during this period.

A notable example of the organized and systematic development of suburban residential colonies is the project initiated in 1857 by the Prussian merchant Johann Anton Wilhelm von Carstenn, who purchased the noble estate of Wandsbeck, near Hamburg[150]. He subdivided the property into numerous building plots for individual sale, with specific stipulations that the houses built on these plots must be freestanding and no more than three stories tall[151]. The villa colony filled with private individual residences so quickly that within a few years, it gained the status of an independent administrative unit, known as Marienthal (now a district of Hamburg). The success of this individual housing development spurred the creation of similar villa colonies on the outskirts of larger cities, from Berlin to Vienna, continuing through the late 19th and early 20th centuries. Another concept that facilitated suburban development was the Garden City Movement, introduced by Ebenezer Howard in the late 19th century. This movement aimed to merge the advantages of urban life with those of rural living. Garden cities prioritized low-density housing, featuring detached homes with gardens and access to green spaces. This approach significantly influenced suburban development, where individual houses were designed with an emphasis on natural surroundings and integration with the landscape, marking a shift away from the densely populated, industrial urban housing of the 19th century[152].

- **Possibilities for popularizing new architectural trends**

The evolution of residential architecture in the first half of the 20th century was largely conditioned by the ability to popularize both new architectural inventions and the manifestos of individual architects with examples of their application in construction. The phenomenon of such popularization can be divided into efforts directed specifically at designers and craftsmen (including the creation of international architectural organizations and the establishment of design schools) and those aimed at the general public, including potential investors (such as organization of architecture and design exhibitions and the publishing activities, e.g. architectural magazines or booklets).

In the 19th century, in the context of the dynamic industrialization of European countries and the British Isles, as well as the social changes occurring within them, initiatives promoting close collaboration between artists, architects, and craftsmen were established. The first of these to achieve international success was the *Arts and Crafts Exhibition Society*, founded in 1888, whose activities were inaugurated by an exhibition at The New Gallery in London[153]. The main goal of the organization was to create a platform for the exchange of ideas between designers of buildings and their furnishings with craftsmen. Equivalent organizations were quickly established in various countries, including *L'Art Nouveau* (1895-1914) based in Paris and Brussels, and the *Wiener Secession* (1897-1914) in Vienna[154].

[150] T. Harlander, *Villa und Eigenheim. Suburbaner Städtebau in Deutschland* [Villa and home. Suburban urban development in Germany], Wüstenrot Stiftung and Deutschen Verlags-Anstalt, Ludwigsburg/Stuttgart, 2001, p. 53.
[151] T. Harlander, *Villa und Eigenheim...*, op. cit., p. 164.
[152] G. Livesey, *Assemblage theory, gardens and the legacy of the early Garden City movement*, "Architectural Research Quarterly" 2011, Vol. 15, Issue 3, p. 271-273.
[153] D.J. De Witt, E.R. De Witt, Modern Architecture in Europe. A Guide to Buildings since the Industrial Revolution, Weidenfeld and Nicolson, London 1987, p. 18.
[154] L. Shiner, *Symbolism and Crime: Architecture of the Vienna Secession*, [in:] R. Neginski, *Symbolism, Its Origins and Its Consequences*, Cambridge Scholars Publishing, Cambridge, 2011, pp. 116-118.

The same occurred in the United States at the end of the 19th century, when in 1897, the *Chicago Arts and Crafts Society* was founded, with Frank Lloyd Wright as one of its co-organizers[155]. However, as noted by Izabella Wisłocka, the short-lived nature of this movement (which ended with the outbreak of World War I) stemmed from its reliance on individual artistic tastes and the pursuit of originality, rather than simplicity and collaboration with the advancing automation, as promoted by the functionalists[156]. While the *Arts and Crafts* movement emphasized handcraftsmanship, often opposing mass production and any form of standardization, the *Deutscher Werkbund*, founded in 1907 in Munich, embraced the idea of prefabrication, provided that high aesthetic and functional quality was maintained in the designed objects. Its activities aimed to foster closer collaboration between industrial representatives and architects and designers, not only within Germany but also with other European countries[157]. Before the outbreak of World War I, the organization's activities expanded to Austria (*Österreichische Werkbund*, 1912), Switzerland (*Schweizerische Werkbund*, 1913), and Czechoslovakia (*Svaz českého díla*, 1914)[158]. In 1919, a design and crafts school named 'Bauhaus' was founded in Weimar, with a group of co-founders led by Walter Gropius, who were active members of the German Werkbund. The educational ideas of Bauhaus, which combined theoretical knowledge with practical craftsmanship, were a continuation of the earlier initiatives of this organization[159]. The 1920s saw the emergence of many other groups in Europe that brought together architects and artists, including those aiming to simplify forms in favor of functionality, such as *Arbeitsrat für Kunst*[160]. However, the most influential initiative in shaping modern architecture before World War II was the *Congrès International d'Architecture Moderne* (CIAM). Founded in 1928 in Switzerland, the organization gained its international character due in part to the dissatisfaction among architects from over a dozen countries regarding the outcome of the competition for the Palace of the League of Nations in Geneva[161]. The main tasks of CIAM were defined as: outlining a program for modern architecture; undertaking efforts to integrate architecture with its economic and social foundations; shaping and educating a new generation of functionalist architects; and creating opportunities for the exchange of ideas and consultations among designers from different countries[162]. It is worth noting that the programmatic principles adopted in 1928 were implemented with few modifications until the dissolution of CIAM in 1959. Before the outbreak of World War II, five international congresses were organized, resulting in guidelines and documents on the shaping of modern cities and architecture. One of the most well-

[155] A. Alofsin, *Frank Lloyd Wright--the Lost Years, 1910-1922: A Study of Influence*, University of Chicago Press, Chicago 1993, p. 11.

[156] I. Wisłocka, *Awangardowa architektura Polska 1918-1939* [Avant-garde architecture in Poland 1918-1939], Wydawnictwo Arkady, Warszawa 1968, p. 26.

[157] J. Urbanik, *WUWA 1929-2009. Wrocławska wystawa Werkbundu* [WUWA 1929 - 2009. The Werkbund Exhibition in Wroclaw], Muzeum Architektury we Wrocławiu, Wrocław 2009, pp. 23-24.

[158] E. Blau (eds.), *Shaping the Great City: Modern Architecture in Central Europe*, Prestel Publishing, London 1999, pp. 123, 157.

[159] I. Wisłocka, *Awangardowa architektura*..., op. cit., pp. 36-37.

[160] P. Gössel, G. Leuthäuser, *Architecture in the 20th Century*, Taschen, Köln 2020, p. 165. The organization aimed to promote new architectural forms inspired by nature and a break from rectilinear, cuboid structures.

[161] E. Mumford, *The CIAM Discourse on Urbanism, 1928-1960*, The MIT Press, Cambridge MA 2000, pp. 15-35. In the international competition, the views of progressive modernist architects clashed with those of a generation of conservative academics. A monumental, historicizing design was selected for construction.

[162] H. Syrkus, S. Syrkus, *Dziesięć lat pracy Międzynarodowych Kongresów Architektury Nowoczesnej 1928-1938* [Ten years of work of the International Congresses of Modern Architecture 1928-1938], „Dom, Osiedle, Mieszkanie", no. 6/7, 1938, p. 2.

known outcomes was the 'Athens Charter', developed under the leadership of Le Corbusier and adopted during the IV Congress in Athens in 1933[163]. The activities of CIAM also had an impact on Poland through the *Praesens* group of architects and artists, active in Warsaw since 1926. Its co-founders, Szymon and Helena Syrkus and Józef Szanajca, due to their participation in the competition for the Palace of the League of Nations in Geneva, were invited by Le Corbusier to join the ranks of CIAM[164]. As a result, from 1928 onward, the *Praesens* group became the representative of the international organization in Poland. Its members organized lectures and published articles in the magazine 'Praesens' that reported on the proceedings and resolutions of the CIAM Congresses. This significantly contributed to the popularization of modern architecture in Poland at the turn of the 1920s and 1930s.

One of the most effective ways to popularize new architectural and design solutions were the exhibitions initiated by the organizations mentioned above. These exhibitions provided an opportunity to familiarize with the latest developments both for potential investors interested in building a private residence and practicing designers. A group of international exhibitions can be identified that undoubtedly had a significant impact on the evolution of residential architecture in the first half of the 20th century. These include the Werkbund exhibitions (Cologne 1914; Stuttgart 1927; Brno 1928; Breslau (now Wrocław) 1929; Karlsruhe 1929; Basel 1930; Zurich 1931; Vienna 1932; Prague 1932), the Autumn Salon[165] (Paris 1922) and the International Exhibition of Modern Decorative and Industrial Arts[166] (Paris 1925).

The first Werkbund exhibition was opened in Cologne just three months before the outbreak of World War I and did not yet take the form of a model housing estate, as was the case with later Werkbund exhibitions in the 1920s and 1930s. However, it featured two iconic architectural projects that showcased the modernist ideas of transparency, functionality, and the use of new materials: the Glass House (designed by Bruno Taut) and the Factory and Office Building (designed by Walter Gropius and Adolf Meyer)[167]. While the Glass House symbolised the surprising expressivity and utopian potential of glass as a building material, the Factory Building was an important milestone presenting the economic and rational use of steel as a construction material. The use of steel allowed for large spans and open interiors, free from the need for supporting walls, while glass provided abundant natural light, reducing the need for artificial lighting. The design of the Factory Building was modular, reflecting the modernist belief in standardization and prefabrication. This approach aimed at creating buildings that could be easily replicated or adapted to different functions, aligning with the needs of an industrialized society. The Factory Building by Walter Gropius and Adolf Meyer was widely published and discussed internationally, becoming an influential model in the discourse of Modernist architecture in the years following the Werkbund Exhibition of 1914[168].

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[163] It includes analyses and a set of recommendations addressing issues related to the housing environment, particularly in the contexts of rest, work, and communication.
[164] S. Syrkus, *Ze świata* [*From the World*], "Dom, Osiedle, Mieszkanie" 1929, no. 3., p. 17.
[165] Fr.: *Salon d'Automne*.
[166] Fr.: *Exposition Internationale des Arts décoratifs et Industriels Modernes*.
[167] I. Wisłocka, *Awangardowa architektura...,* op. cit., p. 31.
[168] The Factory Building was featured in renowned professional journals of the time, including: *Deutsche Bauzeitschrift*, *Bauwelt*, *Die Form*, *Kunstgewerbeblatt*, and *Architectural Review*.

After World War I, European society was undergoing rapid change, driven by the need for reconstruction and functional solutions for housing and urban development. The devastation of the war, particularly in France, had left cities in ruins and populations struggling. In this context, architecture and design were seen not only as artistic endeavors but also as tools for rebuilding society, both literally and symbolically. The Autumn Salon (Paris 1922) reflected this atmosphere of change, with artists and architects responding to the new realities of the modern world: a significant work that influenced particularly the 1920s and 1930s development of single-family house architecture was Le Corbusier's contribution: the Citrohan House[169] [Fig. 7a].

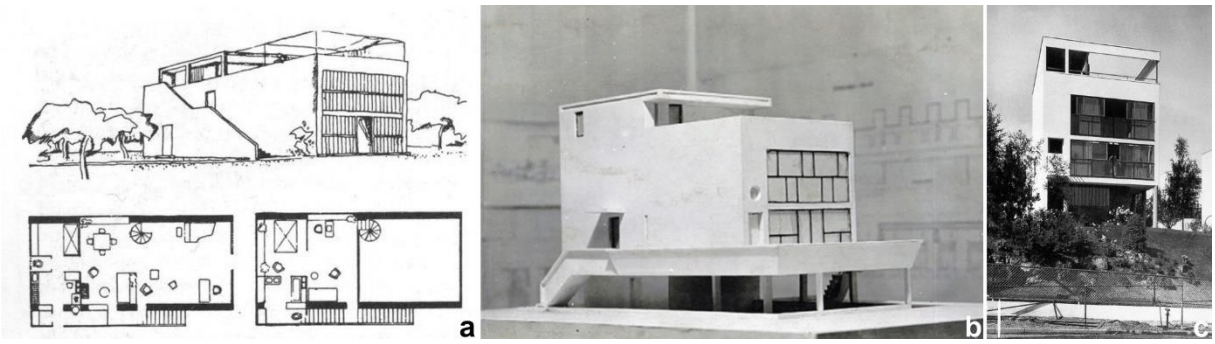


Fig. 7. Drawings of the early Citrohan House, 1920 [a]; Model of the Citrohan house exhibited during the Autumn Salon in Paris, 1922 [b]; Citrohan House constructed in Weissenhof Estate (Stuttgart), 1927 [c]. Sources: K. Frampton, *World of Art: Le Corbusier*, Thames&Hudson, 1968 [a]; https://www.fondationlecorbusier.fr/en/work-architecture/, access: 17.07.2024. [b]; http://architecture-history.org/architects/, access: 17.07.2024. [c].

This theoretical prototype dating back to 1920 for mass-produced, standardized and functional single-family house aimed at addressing the masses in the post-World War I context. It was designed to demonstrate how industrial principles could be applied to create efficient, low-cost, and modern living spaces. The Citrohan House had a box-like structure, characterized by clean, simple geometric lines. It was raised on supporting columns (*pilotis*), leaving the ground level open for use as garden space or other functions. The interior featured a double-height living room, large windows set, and an open floor plan communicated by an external staircase (however, this solution was changed after 1920 in later versions of the concept, e.g. in one presented during Autumn Salon[170]). The use of the aforementioned open floor plan derives from another model solution by Le Corbusier which had a profound impact on the development of the open floor plan in later modernist houses. The 'Dom-Ino' concept from the year 1914 is a structural system based on reinforced concrete slabs supported by a minimal number of freestanding columns and free of load-bearing walls[171]. This created a free plan, where interior walls could be arranged (or omitted) as needed without affecting the structural integrity of the building. The 'Dom-Ino' framework laid the foundation for many of Le Corbusier's later housing projects, including individual houses (e.g. Villa Stein-de-Monzie, Villa Savoye or La Roche-Jeanneret House)[172]. The Citrohan House was also based on the 'Dom-Ino system'. However, during the Autumn Salon in 1922 and 1923, only its drawings and models were presented. It was not until 1927 that a

[169] M. Risselada (ed.), *Raumplan versus Plan libre. Adolf Loos and Le Corbusier*, Rizzoli, New York 1989, pp. 99-100.
[170] L. Holm, *Le Corbusier and the Construction of 'Vers une Architecture', Towards a Metaphor Architecture*, Proceedings of the 1991 ACSA Southeast Regional Conference, North Carolina 1992, pp. 117-118.
[171] M. Risselada (ed.), *Raumplan versus Plan libre*...op. cit., p. 93.
[172] M. Risselada (ed.), *Raumplan versus Plan libre*...op. cit., pp. 102-111.

house based on the Citrohan was realized as part of the housing exhibition at the Weissenhof Estate in Stuttgart, organized by the German Werkbund, as will be discussed later in this chapter. Before the first housing estate was constructed in the form of a Werkbund exhibition, Le Corbusier presented another work of his in Paris in 1925: the Pavilion de l'Esprit Nouveau. In contrast to the Citrohan House, this pavilion was constructed at full scale, allowing visitors to experience the living space with an open floor plan[173]. The Pavilion was conceived as a prototype for modern urban living within the context of Le Corbusier's broader urban planning vision, particularly his concept of the Radiant City. It represented a unit within a large apartment block, not a suburban house. However, it emphasized modularity and open floor plan for single families as well, so it was a good tool for popularising the new form of space organisation as such - also in terms of inspiration for investors planning to build an individual single-family house in Modern style. The 1925 International Exhibition of Modern Decorative and Industrial Arts was primarily intended to showcase decorative works, and while the Pavilion de l'Esprit Nouveau represented a more utilitarian and modernist approach that was not fully embraced within the overall artistic and decorative context of the event[174]. It stood in contrast to the Art Deco style that dominated the rest of the exhibition. Shortly after the event ended, the pavilion was demolished along with many of the other temporary exhibition buildings.

In the second half of the 1920s, the German Werkbund initiated a series of international exhibitions in the form of newly constructed model housing estates, which played a key role in shaping residential architecture in the 20th century[175]. Exhibitions were a collaborative effort involving architects, industrialists, designers, and government officials. The involvement of local governments ensured that the ideas and prototypes were closely aligned with urban planning policies, as the new buildings were consistently designed with the intention of being inhabited. The various housing estates realized as part of the exhibitions feature a diverse typological structure of buildings. Not all of them include individual single-family houses in their programs: the estates in Karlsruhe, Basel and Zurich consist solely of low-rise multi-family and row housing[176]. It is different in the estates in Stuttgart, Brno, Vienna, Prague, and Wrocław, where innovative individual houses can be found. However, its construction and design were not driven by individual investor demand: those houses aimed at demonstrating the potential of modernist housing solutions and were put up for sale after the exhibitions. The organizers of the Werkbund exhibitions sought to create an international dialogue about housing solutions and modern architecture. As a result, the exhibitions featured a mix of local and international architects from countries such as Germany, France, Switzerland, Austria, Czechoslovakia and the Netherlands. Among the most interesting individual houses built as part of the Werkbund exhibitions, it is worth noting Le Corbusier and his cousin Pierre Jeanneret who contributed two houses to exhibition estate in Stuttgart (Weissenhof, 1927): detached Citrohan House located in close proximity to the semi-detached house. These two buildings are the only ones that were built based on the designs of Corbusier and Jenneret as part of the 1927-1932 Werkbund exhibition estates. Among the single-family houses on the Weissenhof Estate, the house designed by Hans Scharoun is particularly noteworthy.

[173] L. E. Palermo, *The 1925 Paris Exposition des Arts Décoratifs et Industriels Modernes and Le Pavillon de L'Esprit Nouveau: Le Corbusier's Manifesto for Modern Man*, "Susquehanna University Scholarly Commons" 2014, p. 241.
[174] P. Gössel, G. Leuthäuser, *Architecture...*, op. cit., p. 226.
[175] J. Urbanik, *WUWA 1929-2009...,* op. cit., p. 29.
[176] Based on archival catalogues and plans of the Werkbund exhibition estates 1927-1932, available in open access.

Unlike many of the other residential dwellings, which featured clean, rectilinear forms, Scharoun's individual house has a more organic, asymmetrical form, rejecting strict geometric compositions. This organic approach is also evident in another spectacular single-family house designed by Heinrich Lauterbach for the WuWA Estate in Breslau (now Wrocław) in 1929. An interesting example of an affordable house built on a small plot is the single-story detached house designed by Richard Neutra for the exhibition estate in Vienna (Lainz, 1932). Given the small size of the plot, the role of the garden is fulfilled by the roof terrace, which has an area comparable to the total usable area of the house: approximately 70 m².

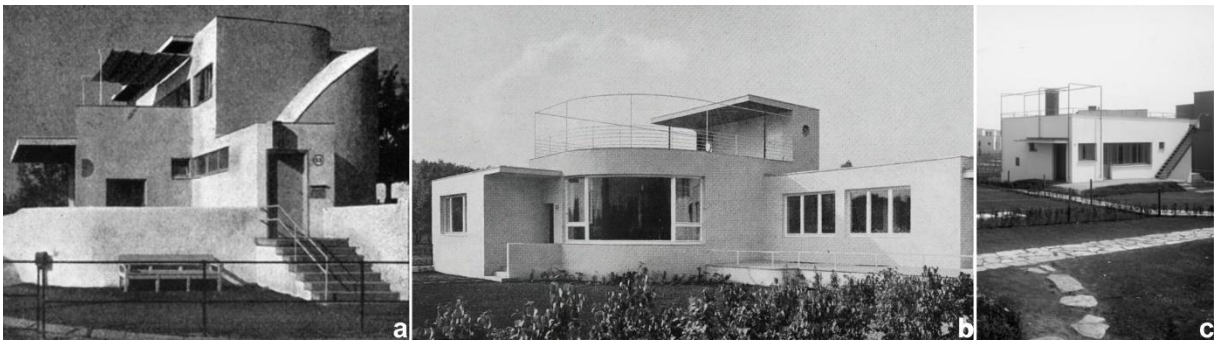


Fig. 8. The house by H. Scharoun in Weissenhof Estate (Stuttgart), 1927 [a]; The house by H. Lauterbach in WuWa Estate (Breslau/Wrocław), 1929 [b]; The house by R. Neutra in Lainz Estate (Vienna), 1932 [c]. Sources: https://www.leo-bw.de/, access: 17.07.2024. [a]; https://polska-org.pl/, access: 17.07.2024. [b]; https://www.werkbundsiedlung-wien.at/en/houses/house-no-47, access: 17.07.2024. [c].

While many Werkbund exhibitions, such as Weissenhof and WuWA, featured a mix of single-family houses, multi-family dwellings, and apartment blocks, the Baba Estate in Prague (1932) was only focused on single-family houses[177]. This made Baba distinctive, as it addressed the growing demand for individual homes in a suburban setting while still adhering to modernist ideals of efficiency and simplicity. The hillside location of the estate, with its views over Prague, allowed the architects to experiment with how modernist houses could be integrated into a natural setting. This estate featured a greater diversity of architectural styles compared to other Werkbund exhibitions. This diversity was due to the involvement of multiple Czech architects, each bringing their interpretation of modernism. An additional factor influencing the individual character of the single-family houses was the involvement of the future residents in the design of their villas, which also distinguishes the Baba estate from earlier Werkbund exhibitions. An example of such collaboration is the Palička couple, who were captivated by the row house designed by the Dutch architect Mart Stam during the Werkbund exhibition in 1927. When plans for the construction of the model housing estate in Prague became known, they arranged for their future home to be designed by him as well. As a result, the Baba Estate gained an original work by the only foreign architect[178]. The house's design underscores the growing trend of personalized modernism, where individual clients played a role in shaping the architecture of their homes. It is positioned on a steep slope, and its lightweight reinforced concrete structure, with columns on the garden side, lends an overall sense of openness and lightness. This effect is further enhanced by a semi-open terrace located on the ground floor which is sheltered by an overhanging

[177] J. Urbanik, *WUWA 1929-2009...*, op. cit., p. 74.
[178] C. Connena, *A veiled manifesto of the modernity: Palička House (1929-1932), Prague Mart Stam – Jiří Palička*, Arquiteturarevista, Vol. 4., no. 2., pp. 45-46.

structure formed by the extension of the floor above. In comparison to other houses on the Baba Estate, the one designed by the Dutch architect stands out for its lack of visual cohesiveness in its form. As noted by Jadwiga Urbanik, the Werkbund estate in Prague did not fully meet the expectations placed upon it due to the significant dependence of the architects on the investors and future residents of the houses[179]. On the other hand, this situation introduced a new value that had not been present in earlier Werkbund exhibitions: the opportunity to popularize an individualized approach and collaboration with the private investor and non-anonymous future resident in designing a house aligned with modern architectural trends.

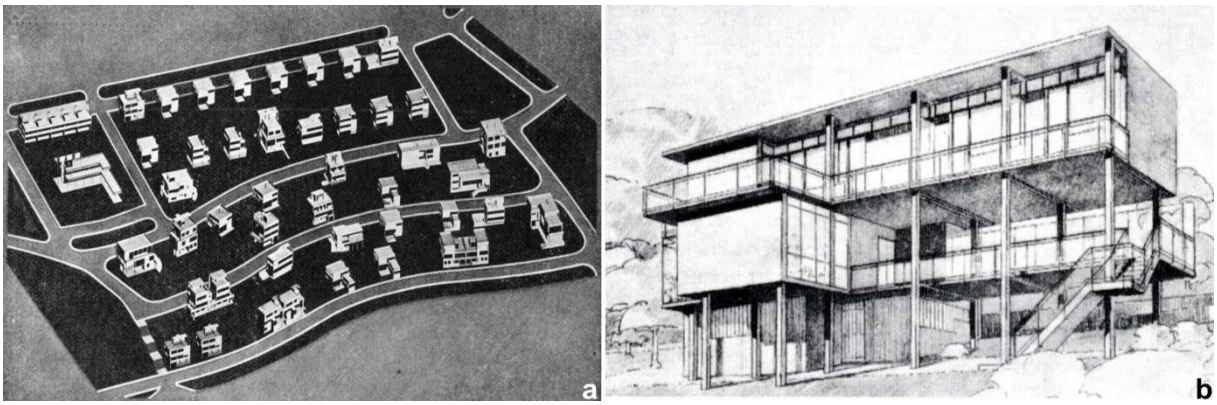


Fig. 9. Isometric drawing of the Baba Estate in Prague, 1932 [a]; Perspective drawing of the house for the family Palička by M. Stam built on the Baba Estate [b]. Sources: https://www.baba1932.com/en/osada-baba-en/, access: 17.07.2024. [a]; https://www.baba1932.com/en/palicka25-en/, access: 17.07.2024. [b].

In addition to the aforementioned international architectural exhibitions of the turn of 1920s and 1930s, it is also worth mentioning the Barcelona Pavilion, designed by Ludwig Mies van der Rohe for the 1929 International Exposition in Barcelona. It was originally intended as the German national pavilion and was a temporary structure, but it had a profound and lasting influence particularly on the design of individual houses[180]. One of the most revolutionary aspects of the pavilion was its concept of fluid, continuous space. Instead of being divided into clearly defined rooms, the pavilion featured spaces that flowed into each other, without rigid boundaries or clear separations. Mies achieved this by using freestanding walls and large glass surfaces that allowed for visual continuity between the inside and the outside. The Barcelona Pavilion had a significant influence the later design of many individual residences, including the 1930 Tugendhat Villa in Brno[181].

In many countries in Europe there were organized exhibitions whose programs did not include the construction of model housing estates or even exhibition pavilions. One such exhibition, which showcased the works of both Polish and foreign architects, was the First International Exhibition of Modern Architecture in Warsaw, 1926. Organized by the Praesens group, the exhibition was held at the Warsaw Society for the Encouragement of Fine Arts (Zachęta) and is considered as a major step in

[179] J. Urbanik, *WUWA 1929-2009...*, op. cit., p. 79.
[180] W. Tagethoff, *Mies van der Rohe. The Villas and Country Houses*, The Museum of Modern Art, New York 1985, p. 13.
[181] P. Lizon, *Villa Tugendhat in Brno. An International Landmark of Modernism*, University of Tennessee College of Architecture and Planning, Knoxville 1997, p. 34.

establishing Poland as an active participant in the European modernist movement[182]. In addition to urban planning projects and large public utility buildings, the exhibition showcased drawings, photographs, and models of several individual single-family houses from both Europe and Poland. Among such contributions representing each country were those by i.a.: Le Corbusier and A. Perret from France; J. J. P. Oud and G. Rietveld from the Netherlands; E. Mendelsohn from Germany; K. Mielnikow from Soviet Union; S. and B. Brukalscy, R. Gutt, B. Lachert and J. Szanajca, K. Tołłoczko from Poland[183]. In the same year, another exhibition was held in Poland, addressing the topic of residential architecture, including individual houses. The 'Mieszkanie i Miasto' ['*Housing and the City'*] exhibition in Lwów (now Lviv, Ukraine) presented projects in thematic sets submitted by the magistrates of major Polish cities, building societies and cooperatives, architects and academics. This final group included a substantial representation of concepts for individual single-family houses, developed both as commissioned projects and as part of educational activities within design faculties (from Warsaw University of Technology and Lviv University of Technology)[184]. It is also worth mentioning the exhibition organized by the Polish Housing Reform Society and the Union of Polish Cities in 1933 in Warsaw, under the title 'Tani dom własny' ['*Affordable Own Home'*]. The exhibition featured 29 freestanding houses in the functionalist style, built from wood, located in what is now the Bielany district[185].

Another significant impact on the development of individual residential architecture in the first half of the 20th century came from the publications of architectural and industry journals, as well as the self-published works of architects. These publications served as essential platforms for disseminating modernist ideas, offering architects the opportunity to present their design philosophies, technical innovations, and new approaches to residential architecture. Among the most important journals in Germany promoting modernist architecture and designs for modern individual houses were: 'Bauwelt' (founded in 1910, covering architecture and the Bauhaus movement.) and 'Die Form' (1925-1934, the official journal of the Deutscher Werkbund, promoting modernist architecture, design, and industrial aesthetics). In France: 'L'Architecture d'Aujourd'hui' (since 1930, one of the most influential architectural journals of the 20th century) and 'L'Architecture Vivante' (1923-1933, published the works of Le Corbusier and Eileen Gray and was instrumental in spreading the International Style and modernism). In Italy: 'Architettura e Arti Decorative' (1921-1932, became an important venue for discussing the intersection of traditional and modernist design in Italy and worldwide); 'Domus' (since 1928) and 'Casabella' (since 1928) both promoted modernist, rationalist architecture and interior decoration. Also in Czechoslovakia there were several journals publishing modernist approaches to individual residential design, e.g. 'Styl' (1909-1938), 'Stavba' (since 1922) and 'Bytová Kultura' (1924-1925). In turn, between 1918 and 1939 several architectural journals played crucial roles in promoting

[182] Zahorska Stefanja, Międzynarodowa Wystawa Architektury w Warszawie – Kronika architektoniczno-budowlana [*International Architecture Exhibition in Warsaw - Architecture and Construction Chronicle*], *Architekt*, np. 5, 1926, p. 17.

[183] T. Żarnowerówna, M. Szczuka, Katalog Wystawy architektury nowoczesnej w Warszawie [*Catalogue of the Exhibition of Modern Architecture in Warsaw]*, *Blok – Czasopismo Awangardy Artystycznej*, R. III, 1926, p. 1.

[184] Z. Wóycicki, Katalog Wystawy Związku Miast Polskich „Mieszkanie i Miasto" [*Catalogue of the Association of Polish Cities Exhibition 'Housing and the City'*], Architektura i Budownictwo: miesięcznik ilustrowany, no. 6, 1926, pp. 36-40.

[185] *The Exhibition Catalogue*, „Dom, Osiedle Mieszkanie" 1932, No. 7/8, p. 3-9.

modernism in Poland during the interwar period: 'Architekt' (1901-1929) 'Architektura i Budownictwo' (1925-1939), 'Dom, Osiedle, Mieszkanie' (1929-1939) and 'Praesens' (1926-1930).

Promotion of their work by architects through self-edited publications or publication series was also a significant phenomenon. The Wasmuth Portfolio commissioned by Frank Lloyd Wright is a landmark publication in architectural history, published in 1910 by the German publisher Ernst Wasmuth[186]. It introduced Wright's pioneering ideas to European audience for the first time. The portfolio consists of 100 lithographic plates featuring Wright's designs, including drawings of houses, public buildings, and conceptual projects. It showcases his work from the Prairie School period, highlighting his innovations in residential architecture. Another example was journal 'L'Esprit Nouveau' founded in 1920 by Le Corbusier and Amédée Ozenfant and published till 1925. Le Corbusier's essays in the journal laid the groundwork for what would later be formalized in his famous book 'Vers une architecture from 1923.

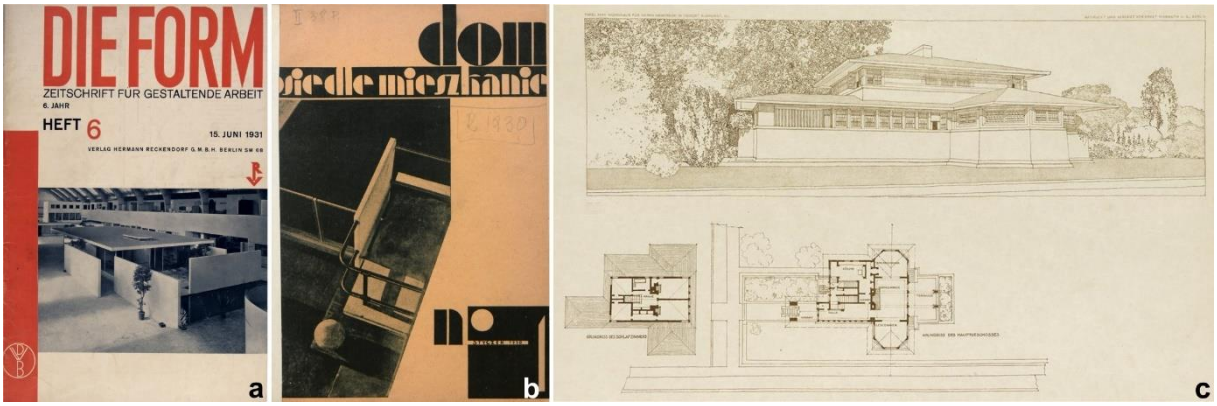


Fig. 10. Cover of the german journal 'Die Form', issue 6, 1931 [a]; Cover of the polish journal 'Dom, Osiedle, Mieszkanie', issue 1, 1930 [b]; The Henderson House in drawings in 27 table in Wasmuth Portfolio, 1910 [c]. Sources: https://www.abebooks.co.uk/Form-Zeitschrift-gestaltende-Arbeit-Vol-1931/, access: 17.07.2024. [a]; https://bcpw.bg.pw.edu.pl/dlibra/, access: 17.07.2024. [b]; https://franklloydwright.org/impact/, access: 17.07.2024. [c].

- **Technical and material capabilities**

An additional key factor shaping both residential architecture and the broader field of construction in the early 20th century was technological progress and the introduction of new building and finishing materials. The most groundbreaking innovations in shaping architectural possibilities were primarily steel structures and reinforced. Additionally, aluminum and lightweight materials, combined with the ability to glaze increasingly larger surfaces, played a significant role in the history of architecture in the first half of the 20th century.

Before steel became the dominant material in architecture, iron was widely used in construction (e.g. the Christal Palace in London, 1851). While it was a significant improvement over older materials, it had limitations. Cast iron was brittle and prone to cracking, while wrought iron, though stronger in tension, lacked the compressive strength needed for taller structures[187]. These limitations led to the

[186] Officially titled *'Ausgeführte Bauten und Entwürfe von Frank Lloyd Wright'*.
[187] P. Gössel, G. Leuthäuser, *Architecture*..., op. cit., p. 22.

search for a stronger, more versatile material. The breakthrough came with the Bessemer process, developed in 1856 by Sir Henry Bessemer, which made the production of steel both cost-effective and scalable. Steel's flexibility allowed for the development of new construction techniques, such as the steel skeleton frame. It became a crucial material in the construction of skyscrapers, particularly in the United States in the late 19th century, but also a significant component of another innovation: the reinforced concrete construction.

Reinforced concrete emerged in the 19th century as a response to the limitations of traditional building materials such as wood, stone, and unreinforced masonry. While concrete had been used in construction for centuries, its lack of tensile strength made it unsuitable for certain applications, particularly those requiring resistance to bending and stretching forces. A key figure in the early development of reinforced concrete was Joseph Monier, a French gardener who used iron mesh to reinforce concrete flowerpots in the mid-19th century. Monier realized that embedding metal rods in concrete could dramatically improve its structural capabilities. Another important innovator was the French engineer François Hennebique, who in 1892 patented a system that integrated concrete with steel reinforcement in a way that allowed for both compressive and tensile strength. His system became widely used in Europe and helped solidify the role of reinforced concrete in the 20th century architecture (e.g. with A. Perret's early works with the use of reinforced concrete: Rue Franklin Apartments in Paris, 1903 or Garage Ponthieu in Paris, 1905).

1.2. Key Houses

The general overview of individual single-family residential architecture presented in this subchapter is based on examples from European countries and the United States, which were the centers of key architectural movements and home to influential architects that defined 20th-century architecture globally. The adopted order in which regions and sets of ideas that influenced their architecture are presented is not determined by an assessment of architectural value or directions of stylistic influence. Trends in single-family residential architecture were mutually reciprocally, with origins rooted in diverse cultural contexts. However, in light of the historical events of the first half of the 20th century, the analysis begins with European countries. This approach is justified by the continuity of the work of many European architects who, during the 1920s and 1930s, opted or were forced to emigrate, often to the United States. This migration played a pivotal role in the transference and evolution of architectural ideas and practices between Europe and the United States, further shaping the architectural landscape of the 20th century.

- **Europe**

From the turn of the 19th and 20th centuries until the outbreak of World War I, decorative movements clashed with early modernism in European art and architecture[188]. The tensions between Art Nouveau (or Secession) and modernism are well illustrated by the works of Josef Hoffmann, Otto Wagner and Adolf Loos. In the context of residential architecture, a prominent example of this phenomenon is the **Palais Stoclet** in Brussels. The design was commissioned from Josef Hoffmann by the banker Adolphe Stoclet in 1905, with the construction of the three-story residence completed in 1911. Another example of a private residence embracing the emerging aesthetics of modernism in the beginning of the 20th century is the **Villa Cuno**, designed by Peter Behrens in 1907. This architect utilized

[188] P. Gössel, G. Leuthäuser, *Architecture*..., op. cit., pp. 83-85.

modern materials, including steel and concrete, in a residential context[189]. Similar features can be found in the **Villa Wagner II** in Vienna, designed by Otto Wagner for himself in 1911 and completed in 1913. In addition to the economical spatial arrangement of the rooms, the building featured flexible living spaces that reflected the needs of modern life. Additionally, the villa's flat roof and cubic form were innovative for the time, marking a departure from traditional pitched roofs. When discussing the construction and form of the roof, it is essential to highlight one of the undeniably groundbreaking single-family houses: the Steiner House in Vienna, an early work by Adolf Loos from 1910. A characteristic feature of the Steiner House is that it exhibits early elements of spatial organization that hint at Loos's evolving architectural philosophy: the *Raumplan*. This philosophy was further developed in his later residential projects.

Adolf Loos's ***Raumplan concept*** introduced a new approach to spatial organization by creating interconnected levels with varying heights tailored to function. Unlike conventional layouts with flat, uniform floors, the Raumplan organized rooms vertically in response to their purpose, establishing a hierarchy that prioritized efficiency and openness. The **Steiner House** (Vienna, 1910) is an early example, marked by a pure geometric form, minimal decoration, and asymmetrical window arrangement, which presented a strong break from traditional residences. Loos refined these ideas in later works such as the **Rufer House** (Vienna, 1922) and the **Villa Müller** (Prague, 1930). In the Rufer House, spaces are layered around a central structural spine that minimizes corridors, and windows are arranged asymmetrically to respond directly to each room's function, further developing the *Raumplan* philosophy. The Villa Müller builds on these principles, featuring a more complex spatial structure with differentiated levels, strategically framed views, and a sense of openness that balances privacy with flow. Loos's *Raumplan* became a defining concept in modernist architecture, transforming the residential space into a series of interconnected, functional volumes rather than a single continuous level[190]. This distinctive style differentiated him from some of his contemporaries who were also designing individual villas during the same period, such as the Le Corbusier.

Le Corbusier formalized his ideas in his ***Five Points of Modern Architecture***, which emphasized pilotis (columns elevating the structure), flat roofs for terrace use, open floor plans, free façades, and horizontal windows. These points aimed to optimize light, air, and functionality, marking a major shift in architectural theory and residential design. Early applications of these principles are evident in the **Villa Le Lac** (Lake Geneva, 1923), where horizontal windows and a flat roof integrated with the landscape, foreshadowing his complete realization of the Five Points in **Villa Savoye** (Poissy, 1928-1931). The Villa Savoye fully implemented Le Corbusier's ideals, with open, free-flowing spaces and a Promenade architecturale guiding inhabitants through an experience of gradually revealed spaces. This design underscored the unity between interior and exterior space, providing continuity through ramps and large windows. The concepts introduced in Villa Savoye had a far-reaching influence, establishing Le Corbusier's Five Points as a blueprint for modernist residential architecture and creating a spatial experience that was new to 20th-century home design. It is worth noting that architects working alongside with Le Corbusier in the 1920s, 1930s, and 1940s who incorporated elements propagated by

[189] W. Müller-Wulckow: *Deutsche Baukunst der Gegenwart. Wohnbauten und Siedlungen*, Königstein i.T., Langewiesche 1929, p. 13, p. 122.
[190] C. Jara, *Adolf Loos's Raumplan Theory*, "Journal of Architectural Education" 1995, Vol. 48, no. 3., p. 186.

him in their individual residential designs include Lubomír and Čestmír Šlapeta in Czechoslovakia[191], as well as Bohdan Lachert and Józef Szanajca[192] in Poland.

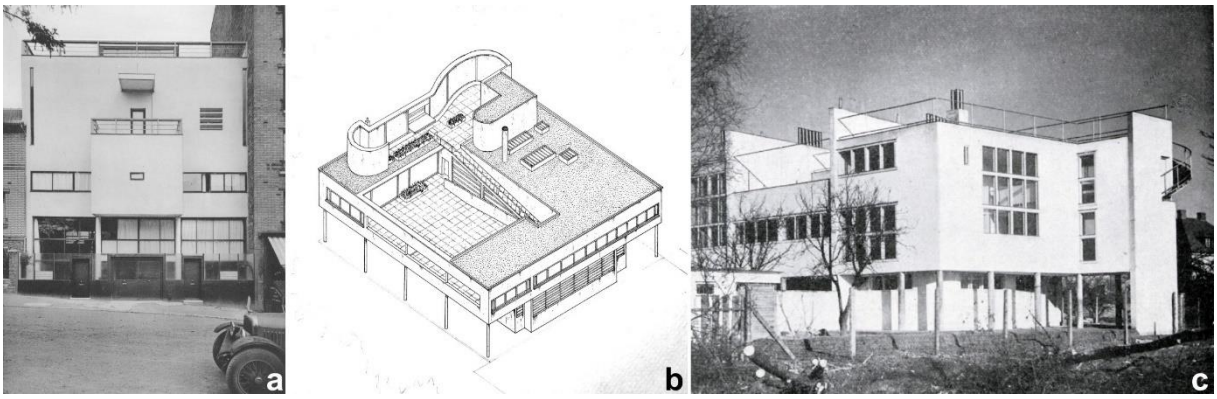


Fig. 11. The Planeix House in Paris, 1929 [a]; Axonometric drawing of the Villa Savoye in Poissy illustrating Le Corbusier's five points of modern architecture [b]; The Lachert House in Warsaw, 1935 [c]. Sources: R. Kozlovsky, *Pairing Le Corbusier and the affordances of comparisons for architectural history*, "The Journal of Architecture" 2019, Vol. 24, p. 563 [a]; https://www.reddit.com/r/architecture/, access: 17.07.2024. [b]; https://upload.wikimedia.org/, access: 17.07.2024. [c].

Simultaneously with the development of Le Corbusier's single-family house designs linked to his Five Points of Modern Architecture, the 1920s Europe also saw the emergence of houses associated with the German **Bauhaus school**, with its emphasis on functionalism, minimalism, and the use of geometric forms, profoundly shaped modern residential architecture. Bauhaus houses typically feature cubic volumes, flat roofs, and a focus on geometric simplicity, qualities that were foundational to the school's design philosophy. **The Meisterhäuser** (Dessau, 1925-1926), designed by Walter Gropius, exemplifies this approach through clean lines and restrained forms that eschewed ornamentation in favor of clarity and function. These houses were meant to serve as residences for Bauhaus masters and demonstrate the principles of functionalism and simplicity. Within the Bauhaus movement, Mies van der Rohe's **Villa Tugendhat** (Brno, 1928-1930) introduced a sophisticated geometric order and a layout that blended indoor and outdoor spaces. With its use of marble, large glass walls, and open interiors, the Villa Tugendhat emphasized a horizontal, anti-cubic spatial organization.

The ***De Stijl movement***, established in 1917, introduced an abstract approach to space, using intersecting planes, primary colors, and anti-cubic compositions that contrasted with the monolithic structures typical of other movements. **The Schröder House** (Utrecht, 1924-1925), designed by Gerrit Rietveld, epitomized De Stijl's spatial philosophy with its open plan and flexible interior walls, which could be adjusted to create either open communal spaces or private rooms. This dynamic flexibility in the floor plan allowed the house to respond to the occupants' changing needs, marking a significant departure from static, closed designs. Additionally, the use of color—limited to red, blue, yellow, black, and white—helped define space and added visual distinction without the need for walls, thus creating zones without physical enclosures. This aesthetic and functional approach influenced projects beyond the Netherlands, as seen in the **Brukalski Villa** (Warsaw, 1927-1928), which integrated De Stijl principles through spatial fluidity and geometric precision. The De Stijl approach introduced a new way of thinking

[191] Example: the Urbánek House in Ostrava, Czechoslovakia, 1934.
[192] Example: the Lachert House in Warsaw, Poland, 1935.

about space in residential architecture, treating the home as an abstract composition of intersecting planes and zones rather than enclosed volumes.

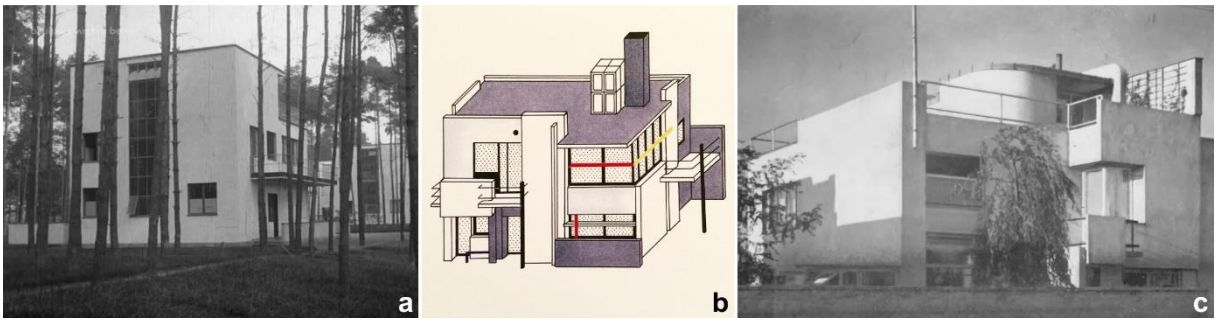


Fig. 12. The Master's Houses complex in Dessau, 1929 [a]; Axonometric drawing of the Schröder House in Utrecht [b]; The Brukalscy Villa in Warsaw, 1934 [c]. Sources: https://www.moderne-regional.de/fachbeitrag-paradiese-aus-glas/, access: 17.07.2024. [a]; E. Ravilious, N. Carrington, Puffin Picture Books, https://englishmodernism.tumblr.com/, access: 17.07.2024. [b]; "Architektura Polska" 1935, no. 3, p. 69 [c].

The final trend in this overview is sculptural **organic architecture**, emerging in the 1920s, focused on integrating the built environment with natural surroundings through expressive, non-linear forms. This approach combined elements of Expressionism and Functionalism to create buildings that were both sculptural and responsive to their contexts. Otto Bartning's **Wylerberg House** (Kleve, 1921-1924) is a seminal example, with polygonal rooms and rounded forms that break away from traditional box-like configurations. Bartning used natural materials and a multi-faceted structure to seamlessly blend the house with its surroundings, creating a harmonious relationship between architecture and landscape. Hans Scharoun expanded these ideas in the **Schminke House** (Löbau, 1930), the **Mattern House** (Potsdam, 1934-1934), and the **Baensch House** (Berlin, 1936), which featured cantilevered balconies, covered terraces, and a ship-like aesthetic that softened the building's main forms. Scharoun's designs often included spacious, glass-enclosed winter gardens and verandas, which blurred the boundaries between interior and exterior spaces, enhancing the organic connection to the landscape. **Villa Mairea** (Noormarkku, 1939), designed by Alvar Aalto, took this concept further by combining modern materials such as steel and glass with traditional wood and stone. Sculptural organic architecture, with its focus on natural harmony and expressive forms, became a hallmark of 20th-century residential design, influencing architects who sought to blend functionality with environmental sensitivity.

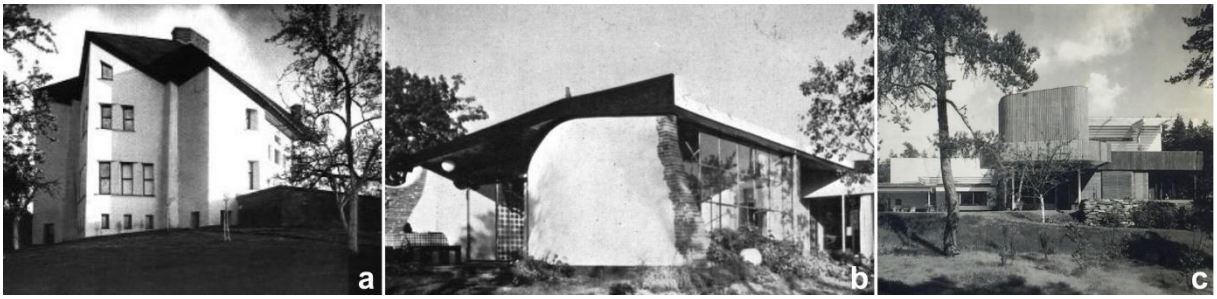


Fig. 13. The Wylerberg House in Kleve, 1920s [a]; The Mattern House in Potsdam, 1930s [b]; The Villa Mairea in Noormarkku, pic. Safa-Kuva-Arkisto, 1939 [c]. Sources: https://deu.archinform.net/projekte/2395.htm, access: 17.07.2024. [a]; https://scharoun-gesellschaft.de/projekte/haus-mattern-potsdam/, access: 17.07.2024. [b]; https://www.ribapix.com/Villa-Mairea-Noormarkku_RIBA28008, access: 17.07.2024. [c].

- **United States**

In the late 19th century, American residential architecture was characterized by eclectic historicism, with styles such as Victorian and Colonial Revival dominating the landscape. Frank Lloyd Wright led a shift towards simplicity and integration with nature, developing the ***Prairie House*** style, characterized by open interiors and strong horizontal lines, seen in the **Robie House** (1909). This design integrated the garage and used cantilevered eaves and corner windows to emphasize openness and light. His work gained international attention, setting the foundation for his later *Usonian* houses. Wright's ***Usonian Houses***, beginning with **Jacobs House** (1937), responded to the economic challenges of the Great Depression by emphasizing affordable design for the middle class. With features like concrete slabs, radiant heating, and clerestory windows, these houses were practical yet innovative. **Hanna House** (1937), with its hexagonal grid, demonstrated Wright's flexibility with geometric forms, while his iconic **Fallingwater** (1935) exemplified organic architecture, integrating with its natural surroundings and showcasing structural innovations like cantilevered terraces.

Other American architects further contributed to modernism. Irving Gill's early 20th-century projects, including the **Dodge House** (1916), emphasized hygiene and functionality, incorporating rounded interior corners and reinforced concrete, while avoiding ornamentation. European émigrés like Rudolf Schindler and Richard Neutra brought Bauhaus principles to the U.S., with Schindler's **Lovell Beach House** (1926) and Neutra's **Lovell Health House** (1929) demonstrating innovative use of steel and concrete, open layouts, and extensive glass, blending modernism with Californian landscapes.

Walter Gropius also brought European modernism to the U.S. with his own **Gropius House** (1938), blending Bauhaus principles with local materials. These architectural contributions by American and European pioneers helped shape 20th-century residential architecture globally, establishing modernism as a versatile, enduring style.

Fig. 14. Axonometric drawing of the Schindler House in West Hollywood, demonstrating Schindler's novel approach to bungalow design [a]; The Lovell Health House in Los Angeles, 1940s [b]; The Gropius House in Lincoln, 1938 [c]. Sources: https://commons.wikimedia.org/wiki/File:Schindler_House_isometry.jpg, access: 17.07.2024. [a]; http://architecture-history.org/architects/architects/NEUTRA/, access: 17.07.2024. [b]; https://architecture-50.fr/la-gropius-house-de-lincoln-mass/, access: 17.07.2024. [c].

2. General overview of global architectural trends in the second half of the 20th century

The second half of the 20th century marked an era of architectural refinement and bold stylistic shifts, as architectural practices diversified from earlier modernist movements into what became known as *Late Modernism*[193]. This period saw the rise of the *International Style* as a unifying, global architectural language, alongside the emergence of subtypes like *Brutalism*, each contributing distinct philosophies and aesthetics to architectural practice. In architectural history, *Late Modernism* designates a phase extending from the late 1940s through the 1980s, building upon the principles of High Modernism and responding to the postwar context[194]. During this period, architects sought to balance function with innovative aesthetics while addressing the social and economic demands of postwar society. The International Style, developed initially in the 1920s and 1930s, reached maturity in the postwar years and was widely applied in the design of public and corporate buildings globally. In the United States, it shaped the postwar urban landscape, particularly through the skyscrapers of New York City and Chicago. It should also be noted that the *International Style* laid the groundwork for *Mid-century Modern*, which developed from the 1940s to the 1960s[195]. This style adapted and humanized the core tenets of the *International Style*, blending them with regional influences and a focus on residential functionality suited to the American postwar lifestyle. Within *Late Modernism*, unique sub-movements emerged, defined by social imperatives and an emphasis on materiality. One of the most prominent of these was *Brutalism*, flourishing primarily from the 1950s to the 1970s[196]. *Brutalism* emphasized a rugged, raw aesthetic, characterized by exposed concrete and massive, fortress-like structures. Notably, it developed local variations across different regions[197]. In the United Kingdom, *Brutalism* became closely associated with social housing projects and educational institutions. Similarly, in Eastern Europe, Brutalism acquired symbolic and practical dimensions, favored for state-sponsored projects that conveyed both resilience and socialist values. Concrete, with its versatility and durability, became a symbol of these postwar societies' industrial and ideological aspirations. Beyond *Brutalism*, other expressions of *Late Modernism* extended to more subtle variations of form and structure. In Europe, Late Modernism also manifested through *Structural Expressionism* in the 1970s and 1980s, particularly among architects who celebrated the aesthetic potential of building materials and structural systems. However, in the 1970s, alongside the development of Late Modernism, an independent architectural movement—*Postmodernism*—also emerged[198]. Unlike *Late Modernism*, Postmodernism developed as a reaction against the perceived austerity and uniformity of modernist ideals, reintroducing historical references, ornamentation, and playful eclecticism into architectural design, thereby prioritizing visual diversity and cultural symbolism over strict functionality.

The historical and geopolitical context of the United States and Europe, particularly Europe's division in the mid-1940s, makes the task of identifying the determinants of architectural development

[193] W. J. R. Curtis, *Modern Architecture since 1900*, Phaidon Press, New York 1996, p. 483-484.
[194] J. Wojtas, *Ewolucja znaczenia „modernizm" w architekturze* [Evolution of the meaning of 'Modernism' in architecture], [in:] Marciniak P., Klause G. (eds.), *Definiowanie modernizmu* [Defining the Modernism], Wydawnictwo Politechniki Poznańskiej, Poznań 2008, pp. 352-354.
[195] D. Bradbury, Atlas of Mid-Century Modern Houses, Phaidon Press, New York 2021, pp. 6-7.
[196] C. Churly, *Brutalist architecture: Past, Present, Future*, [in:] *Atlas of Brutalist Architecture,* Phaidon Press, New York 2018, pp. 7-8.
[197] B. Calder, Raw Concrete. The Beauty of Brutalism, Penguin Books, London 2021, p. 11.
[198] A. Cymer, *Długie lata 90. Architektura w Polsce czasów transformacji* [The Long 1990s: Architecture in Poland's Transformation Era], Centrum Architektury, Warsaw 2024.

during this period more complex. Therefore, this section follows the organizational structure outlined in Point 1 of this chapter, with a more detailed separation and analysis of the factors influencing architecture across European countries. This structure also applies to the subsection on Key Houses: examples from the United States are presented first, followed by examples from Europe, specifically divided between the Western and Eastern spheres of influence. As in the first chapter, the focus on Europe and the United States is due to their pivotal roles in shaping architectural thought and discourse from the second half of the 20th century onward.

2.1. Determinants of architectural development

- **Social changes and country policies**

The end of World War II in 1945 marked a period of profound transformation in politics, society, and the economy across both Europe and the United States. However, the historical context shaping the architecture emerging in the second half of the 20th century on these two continents differed significantly. While a large portion of European countries were socially, economically, and infrastructurally devastated, with the reconstruction of many destroyed cities becoming a priority, the United States, untouched by wartime destruction, experienced substantial economic growth[199]. Almost simultaneously, Europe was divided by the so-called '*Iron Curtain'*[200]. In 1945, the Allied leaders—Stalin, Roosevelt, and Churchill—met at the Yalta and Potsdam conferences to negotiate post-war arrangements for Europe. These agreements included dividing Germany into occupation zones, with the Soviet Union controlling the eastern portion. Although these conferences aimed to foster European stability and cooperation, they also exposed deep ideological rifts. The Soviets viewed Eastern Europe as a strategic buffer zone against potential future Western aggression, while the Western Allies promoted democratic self-determination. Shortly after the war, the Soviet Union began installing pro-Soviet communist governments across Eastern Europe through political influence, intimidation, and outright force. By the late 1940s, Eastern European countries—including Poland, Czechoslovakia, Hungary, Romania, Bulgaria, and East Germany—had established communist governments closely aligned with Moscow, becoming de facto satellite states under Soviet control. This process alarmed the Western Allies, who perceived it as a Soviet effort to expand communism across Europe.

An essential factor shaping the economy—and significantly influencing construction investments—was the *Marshall Plan*. This American initiative to rebuild Western Europe's economies provided billions of dollars in aid to Western countries but excluded the Eastern Bloc, from which the Soviet Union prohibited participation[201]. This exclusion created a stark economic contrast: Western European nations experienced post-war recovery and modernization, while Eastern Europe, under Soviet-controlled centralized economies, struggled. As a result, the East-West divide deepened, not only through military alliances but also in economic prosperity, with Western Europe advancing rapidly and

[199] S. A. Marglin, J. B. Schor, *The Golden Age of Capitalism: Reinterpreting the Postwar Experience,* Oxford University Press, Oxford 1992, p. 22-23.

[200] The term *'Iron Curtain'* refers to the political, military, and ideological barrier that separated the Soviet-controlled Eastern bloc from Western Europe and the rest of the non-communist world during the Cold War, which lasted from roughly the end of World War II in 1945 until the fall of the Soviet Union in 1991. The phrase was popularized by British Prime Minister Winston Churchill in his famous *'Iron Curtain Speech'* on March 5, 1946, in Fulton, Missouri.

[201] B. Eichengreen, *The European Economy since 1945: Coordinated Capitalism and Beyond*, Princeton University Press, Princeton 2007, p. 35.

Eastern Europe lagging behind. By the 1980s, the Soviet Union and its Eastern European allies were facing severe economic difficulties. While Western Europe continued to enjoy sustained growth, the Eastern Bloc's centralized economies suffered from inefficiencies and shortages. Reform movements began to gain momentum, particularly in Poland with the rise of the *Solidarity* movement.

As Europe is divided five years after World War II. The iron curtain from the Baltic Sea to the Black Sea—with Albania a Red outpost—almost seals Soviet-dominated lands from the West.

Fig. 15. A map of Europe highlighting the countries within the sphere of influence of the Soviet Union (in black with hatching). Source: E.V. McLoughlin (ed.), *The Book of Knowledge Annual 1951,* The Grolier Society Inc., New York 1951.

In Western Europe, single-family house development was influenced by capitalist economies, a growing middle class, and governmental policies that encouraged private homeownership. The economic prosperity in countries like West Germany, France, and the UK led to a steady rise in suburban developments and single-family homes as symbols of postwar stability and prosperity. Social mobility and the value placed on privacy and individual property ownership fueled the growth of single-family homes, with suburban layouts designed to accommodate automobiles and growing families. Western Europe's integration with the U.S. through cultural exchange and shared architectural trends also allowed for the spread of American-style suburban houses.

The situation on the eastern side of the 'Iron Curtain' was entirely different. People in Eastern Bloc countries, such as Poland, Czechoslovakia, Hungary, and East Germany, faced severe restrictions on travel, communication, and information. Governments exercised strict control over the media and censored Western cultural influences, aiming to insulate their populations from Western ideologies and to preserve the socialist narrative. This ideological isolation cultivated a culture of fear and mistrust, as Eastern governments deployed secret police and surveillance systems to monitor and suppress dissent. Eastern European governments were also hampered by severe resource limitations, a consequence of centrally planned economies and chronic shortages of building materials. This scarcity led to the widespread adoption of standardized prefabrication techniques, which prioritized speed and cost-efficiency over aesthetic variety or value. Both the economic and political systems emphasized collectivism and state ownership over private property, extending this principle to housing

policies as well. Following socialist ideology, governments in these countries prioritized collective housing projects over individual homes, viewing single-family residences as symbols of Western individualism and capitalist values. Consequently, large state-sponsored housing projects focused on the mass production of standardized, prefabricated apartment blocks—known as 'panelák' buildings in Czechoslovakia and 'Plattenbauten' in East Germany. These high-rise structures were designed to meet urgent housing demands quickly and economically, but they offered limited scope for personal or single-family home ownership. Private ownership of single-family homes was rare, generally restricted to individuals who secured permits through personal connections or possessed unique access to resources, rendering such homes relatively uncommon and modest in scale. In most Eastern Bloc countries, private architectural commissions were significantly limited. Architects were typically required to work within state agencies, which curtailed the creative freedom to explore design variations that were common among Western architects. When permitted, single-family homes adhered to stringent guidelines influenced by state ideology and economic constraints. For example, these homes were generally small, functional, and minimally decorated, reflecting the utilitarian ethos promoted by Soviet-inspired architectural policies.

Simultaneously, in the United States, following World War II, social transformations and national policies significantly impacted architectural development, particularly in single-family home construction. This era, characterized by widespread post-war optimism and economic expansion, triggered a national housing boom as millions of Americans pursued suburban homes that symbolized stability and prosperity. Federal housing policies, such as the G.I. Bill, provided returning veterans with access to affordable home loans, thereby fueling the rise of the middle-class suburban ideal. These government initiatives aimed at expanding home ownership incentivized developers to build large suburban neighborhoods, which quickly became foundational to both American social norms and the architectural landscape of the post-war period.

- **Possibilities for popularizing new architectural trends**

Following World War II, similarly to the 1920s and 1930s, international expositions played a significant role in shaping architectural trends and ideologies on both sides of the Atlantic. In the immediate post-war years, influential initiatives emerged primarily in the United States; however, Europe soon followed with pivotal showcases highlighting its own architectural recovery and modernization after the end of the conflict. Therefore, in discussing the most important initiatives that influenced the global dissemination of architectural trends, a chronological approach naturally begins with the United States.

The ***Case Study Houses Program***, initiated in 1945 by *Arts & Architecture* magazine and directed by editor John Entenza, was a pioneering architectural initiative aimed at addressing post-war housing shortages in the United States. The program commissioned prominent architects, including Richard Neutra, Charles and Ray Eames, Eero Saarinen, and Pierre Koenig, to design and construct affordable, efficient, and modern single-family homes that utilized new materials and construction techniques[202]. A key objective was to create housing solutions that met the needs of the rapidly growing middle class while embodying modernist design principles and a forward-thinking lifestyle. The Case Study Houses (CSH) were primarily built in Southern California, a region whose climate and geography aligned well

[202] E. A. T. Smith, *Icons of Mid-Century Modernism: the Case Study Houses*, [in:] P. Goessel (ed.) *Case Study Houses*, Taschen, Koln 2019, p. 9.

with the open, indoor-outdoor living concepts promoted by modernist architecture. In terms of impact, the Case Study Houses Program can indeed be seen as having an influence comparable to international architectural exhibitions, though it differed in scope and approach. Unlike international expositions, which typically featured temporary displays in controlled exhibition spaces, the Case Study Houses Program brought modernist concepts directly into residential neighborhoods, allowing architects to experiment with real homes that were ultimately lived in by families. This aspect of functionality and everyday use lent credibility and practicality to the designs, fostering public interest and acceptance of modernist principles beyond the academic or high-art contexts that characterized many exhibitions. Furthermore, while international architectural exhibitions, especially in Europe, tended to focus on rebuilding cities or highlighting urban planning solutions, the Case Study Houses Program concentrated on individual houses, embodying the post-war American emphasis on single-family, suburban living[203].

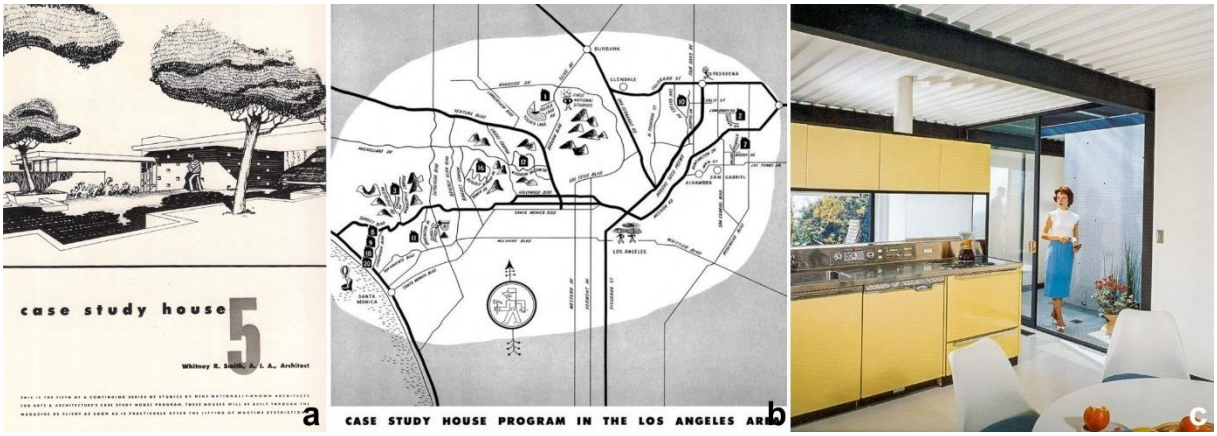


Fig. 16. Perspective drawing of Case Study House No. 5 (Loggia House) published in *Arts&Architecture*, Sept. 1945 [a]; A map of the area surrounding Los Angeles, marking the locations of homes built under the Case Study House Program, was published in *Arts & Architecture*, Jan. 1959 [b]; A photograph of the kitchen from a Case Study House No. 21, 1959.

Although the program formally ended in 1966, the Case Study Houses left a lasting legacy. The designs pioneered by architects like Charles and Ray Eames, Richard Neutra, and Pierre Koenig influenced modernist residential architecture, especially in California. Today, many of the remaining Case Study Houses are celebrated as architectural icons and are preserved as cultural landmarks, recognized for their innovative use of materials, indoor-outdoor integration, and contribution to mid-century modernism. The completed Case Study Houses undeniably inspired architects worldwide, profoundly shaping concepts of single-family home architecture in the latter half of the 20th century. Architects across the world adopted and adapted these principles, integrating the Case Study Houses emphasis on affordability, simplicity, and flexibility into diverse cultural and environmental contexts, thus extending their influence far beyond the United States.

In the 1950s and 1960s, several international architectural exhibitions significantly impacted the evolution of single-family home design, influencing modernist trends, material use, and the integration of architecture with lifestyle ideals[204]. For the purposes of this overview, attention is focused on two

[203] D. Bradbury, Atlas of Mid-Century Modern Houses... op. cit., p. 8.
[204] F. Vasquez, *Architecture exhibitions: chronology of a modern cultural phenomenon and some inquietude*, "Arq.urb" 2017, Issue 20, p. 128.

relatively early exhibitions held in Europe, each of which encompassed, to some extent, emerging trends in single-family residential architecture: *Interbau 1957* (Berlin, Germany) and *1958 World's Fair - Expo 58'* (Brussels, Belgium).

The ***Interbau 1957*** exhibition, held in Berlin was focused on the Hansaviertel district, a neighborhood in West Berlin that had been heavily damaged during World War II. As part of West Berlin's rebuilding efforts, Interbau emphasized a modernist vision for urban living, showcasing designs that addressed housing shortages, the efficient use of space, and integration of green spaces within a dense urban framework. The event was notable for bringing together a distinguished roster of international architects who contributed their unique interpretations of modernist principles, resulting in a diverse array of building types within a unified architectural vision. Key architects involved in the exhibition included Walter Gropius, Alvar Aalto, Le Corbusier, Oscar Niemeyer, Arne Jacobsen, Egon Eiermann, Sep Ruf, Max Taut, Pierre Vago, and Hugh Stubbins. *Interbau 1957* featured a mix of residential, cultural, and public buildings, with a focus on multi-family apartment complexes, row houses, and select single-family houses. The exhibition's buildings demonstrated the adaptability of modernist architecture to different residential formats: high-rise apartment buildings were the centerpiece. In addition to residential buildings, the exhibition included several public and cultural buildings. These included community centers, churches, and educational facilities, which emphasized the importance of social spaces within urban planning. All buildings were arranged in a carefully planned landscape that featured open green spaces, parks, and pedestrian pathways.

From the perspective of single-family home architecture, the lower-rise buildings presented at the exhibition, including row houses and small multi-family dwellings, proved to be both interesting and influential. Eleven different single-family home projects were realized within the exhibition. For the purposes of this review, three examples will be discussed that, in the author's opinion, best represent the innovative aspects of the single-family architecture showcased at *Interbau*.

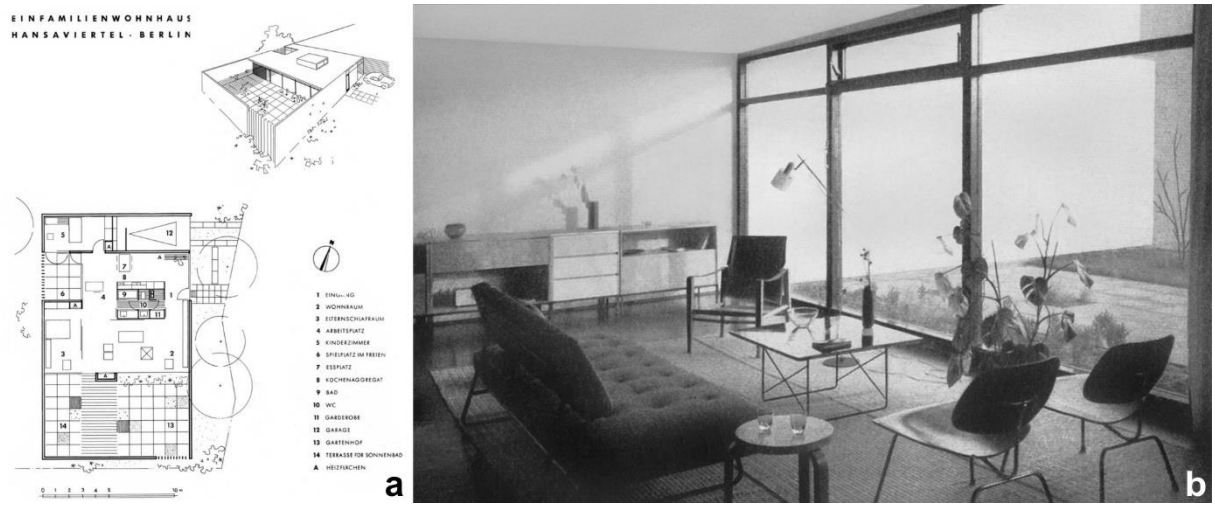


Fig. 17. Floor plans and an axonometric drawing of Günter Hönow's house were included in the *Interbau 1957* exhibition catalog. [a]; A photograph of the living room with a view of the courtyard, 1957 [b]. Sources: https://hansaviertel.berlin/en/building-type/bungalow/ [a, b].

The first example is Günter Hönow's freestanding bungalow, notable for its modular, geometric layout and innovative atrium-centered design. At the core of the home are essential functional spaces (kitchen, bathroom, and heating), topped with a skylight to maximize light and create a spacious feel, extending through a glazed living area that connects seamlessly with the terrace and courtyard. In contrast, architects Sergius Ruegenberg and Wolf von Möllendorff presented a distinctively organic

approach. Their design departs from modernist geometric rigor, emphasizing a free-flowing, irregular plan that optimizes sunlight and foreshadows later deconstructivist ideas. The final example is a set of four atrium homes designed by Arne Jacobsen, oriented east-west. The layout features distinct living sections, with a garden spanning each plot's width. Presented at the exhibition, this ensemble was one of the early examples of high-density, multi-atrium housing—a design approach that saw substantial development in Europe throughout the 1960s.

Fig. 18. Contemporary exterior photographs of the house designed by Sergius Ruegenberg and Wolf von Möllendorff for the *Interbau 1957* [a, b]; Floor plan of the house included in the *Interbau 1957* exhibition catalog [c]. Sources: https://hansaviertel.berlin/en/building-type/bungalow/ [a, b, c].

The ***Expo 58*** **in Brussels** was the first major international architecture exhibition after World War II, showcasing an optimistic, futuristic vision through architecture and technology. Unlike Interbau 1957, which emphasized urban renewal and modernist housing solutions in Berlin's Hansaviertel district, Expo 58 presented a broader range of building types, including experimental pavilions by architects such as Le Corbusier and Eero Saarinen. Both exhibitions shared an emphasis on modernist principles, such as functionality and streamlined design, yet Expo 58 leaned heavily into the futuristic and technological aspects of architecture, often incorporating bold, expressive structures that contrasted with the more residential, community-oriented projects of Interbau. At the *Expo 58* in Brussels, influential model homes demonstrated modernist approaches to post-war living, with an emphasis on technology, modularity, and comfort. Key examples included the De Coene House, a Belgian prefabricated modular dwelling by architect Frans Vuye that showcased efficiency and built-in furniture, and the Electric House, designed by Jacques Dupuis, which highlighted the potential of home automation with rotating platforms displaying fully electrified living spaces[205].

Similarly to the first half of the 20th century, **architectural journals and magazines** played a significant role in popularizing modern architecture in the latter half, serving as key platforms for disseminating ideas, materials, and design philosophies on a global scale. International publications like *Architectural Design* (UK), *Architectural Review* (UK), *Bauen+Wohnen* (Germany), *Baumeister* (Germany), *L'Architecture d'Aujourd'hui* (France), *Werk* (Switzerland), *Domus* (Italy) and *Casabella* (Italy) were particularly influential, offering architects, designers, and the public access to cutting-edge projects and trends. Notably, thematic issues dedicated to single-family home architecture provided critical updates on new design trends. Featuring detailed photographs, plans, and essays, these

[205] F. Flore, R. Devos, *Model interiors and model homes at Expo 58*, preprint, to be published in *DASH*, January 2015.

magazines helped shape tastes, establishing new benchmarks for residential, public, and urban design, and inspiring architects worldwide.

Another aspect that popularized new approaches to single-family home architecture was **mass culture, media, and entertainment**. These channels played a significant role in shaping suburban ideals and modernist aesthetics. Exhibitions, films, and television in the 1950s and 1960s romanticized suburban life, portraying the single-family home as central to the American Dream. Iconic movies and ads showcased sleek, open-plan homes with picture windows and private outdoor areas, aligning home design with concepts of comfort, family cohesion, and personal freedom. This cultural promotion marked a shift towards lifestyle-oriented architecture.

- **Technical and material capabilities**

In the second half of the 20th century, technical and material advancements continued to revolutionize architecture, expanding the possibilities for form, function, and scale. Innovations in structural engineering and new materials transformed both residential and public architecture, with significant contributions from high-performance concrete, synthetic materials, and new glazing technologies. These advancements not only altered the structural integrity of buildings but also opened avenues for the expressive architectural styles that characterized this era, such as Brutalism, Late Modernism, and High-Tech architecture.

One of the most important developments was the emergence of high-strength concrete, which significantly improved upon earlier forms of reinforced concrete. Advances in pre-stressed and post-tensioned concrete allowed for longer spans and more complex forms, particularly in public and institutional buildings. These techniques enabled architects to experiment with large cantilevers, curved surfaces, and intricate shapes previously unattainable with traditional concrete. Architectural icons such as the Sydney Opera House illustrate the potential of high-strength concrete to create durable yet aesthetically expressive forms.

In addition to concrete, synthetic materials like fiberglass, plastic, and composite laminates gained popularity due to their lightweight nature, flexibility, and resilience. Fiberglass and plastics were used not only in structural elements but also in building facades, interiors, and even furniture. These materials allowed architects to explore organic forms and new textures, most notably seen in mid-century and late modernist interiors, as well as in structures like Buckminster Fuller's geodesic domes. Fuller's use of lightweight materials in structures like the Montreal Biosphere demonstrated how synthetic materials could support large-scale, self-sustaining constructions that used minimal resources.

Glazing technology also saw remarkable improvements in this period, as large glass panels and curtain walls became more common. Double glazing and high-performance coatings enhanced thermal insulation, allowing architects to create expansive glass facades without compromising energy efficiency. This innovation contributed to the proliferation of glass skyscrapers in urban centers globally, with the Seagram Building in New York serving as a prominent example of the sleek, glass-clad International Style. The flexibility of glass as both a structural and aesthetic element influenced the development of High-Tech architecture in the 1970s, where glass was frequently used alongside steel to emphasize transparency and a building's internal structure. Steel technology continued to advance as well, particularly in terms of high-strength alloys and prefabricated modular components. The ability to fabricate and transport prefabricated steel elements allowed for rapid, efficient construction, which was especially beneficial for high-rise buildings and large commercial projects.

2.2. Key Houses

An overview of the development of single-family home architecture in the second half of the 20th century will begin with examples from the United States, acknowledging the dynamics shaped by post-war economic prosperity, in contrast to Europe. This uninterrupted architectural continuity also supported the work of European architects who had emigrated to the U.S. before WWII and continued their careers there. Following the American examples, the analysis will move to Europe, first briefly discussing developments in Western countries.

- **United States**

The United States led groundbreaking explorations in single-family residential architecture, notably through the ***Case Study House Program***, which spurred innovative, adaptable home designs. The **Eames House** by Charles and Ray Eames exemplifies this with its modular construction, steel-frame structure, and emphasis on functional space. A distinguishing feature, compared to other houses in this style, is the prominently emphasized two-story, single-space living room on the facades, which is mirrored by a two-story loggia terrace overlooking the garden. Similarly, **Kaufmann House** in Palm Springs, designed by Richard Neutra, integrates open spaces with the desert environment, combining natural materials and glass for seamless indoor-outdoor flow. Noteworthy are the proportions of the external composition of the buildings, which align with the stylistic principles associated with Case Study houses. The horizontal direction of the floors is strongly emphasized by their minimal thickness, creating a slender appearance. Additionally, the visual effect of structural delicacy is pronounced, as the floors rest on a framework of slender steel columns or pillars. In the case of the Kaufmann House designed by Richard Neutra, the building consists of multiple sections arranged across various levels, which somewhat distinguishes it from classic *Case Study* style examples. Additionally, there is a noticeable stylistic nod toward the *International Style*.

Fig. 19. Kaufmann House in Palm Springs designed by Richard Neutra [a]; The own house and studio of architects Ray and Charles Eames in Pacific Palisades, Los Angeles [b]. Sources: https://www.palmspringslife.com/liliane-kaufmann-house-palm-springs/ [a]; https://eamesfoundation.org/house/eames-house/ [b].

In the ***International Style***, Philip Johnson's **Glass House** in New Canaan(1949) and Ludwig Mies van der Rohe's **Farnsworth House** in Plano (1951) exemplify transparency, minimalism, and harmony with nature, removing all superfluous elements to highlight structure and natural surroundings. In both cases, the volumes are single-space rectangular prisms with a columnar structure, containing designated sections for rooms that house the sanitary facilities.

Conversely, the fascination with space exploration in the 1950s brought futuristic architectural experiments like John Lautner's **Chemosphere House** in Los Angeles (1960). It is an octagonal structure perched on a single concrete column, evoking space-age aesthetics while providing panoramic views. Its floor plan reveals a clear division between the open day area and the night area, with bedrooms arranged along walls that radiate from a central reinforced concrete core. In contrast, the Disneyland **House of the Future** (1957), designed as a showcase of prefabrication and crafted from plastic with space-age technology, demonstrated a forward-looking vision of mid-century American architecture. In addition to the aforementioned futuristic form and aesthetics of these houses, it is important to emphasize that in both cases, the layout of rooms on the floor plan was innovative.

Fig. 20. Axonometric drawing of the House of the Future from the Disney exhibition catalog, 1957 [a]; Photograph of the Chemosphere House in Los Angeles, 1963 [b]; Floor plan drawing of the Chemosphere House in Los Angeles by John Lautner, 1959 [c]. Sources: Wikimedia Commons [a-c].

W drugiej połowie lat 60. *The New York Five*, a group of architects including Richard Meier and Peter Eisenman, brought new concepts to residential architecture with a focus on ***abstract, geometric forms*** and pure white surfaces. Meier's **Smith House** in Darien, Connecticut (1965-1967) and **Douglas House** (1971-1973) use clean lines and extensive glass to create a refined, modernist aesthetic that connects with the natural environment. Eisenman's **House IV (Frank House)** in Falls Village, Connecticut (1971) represents a conceptual approach, using intersecting grids and fragmented spaces that challenge conventional residential design.

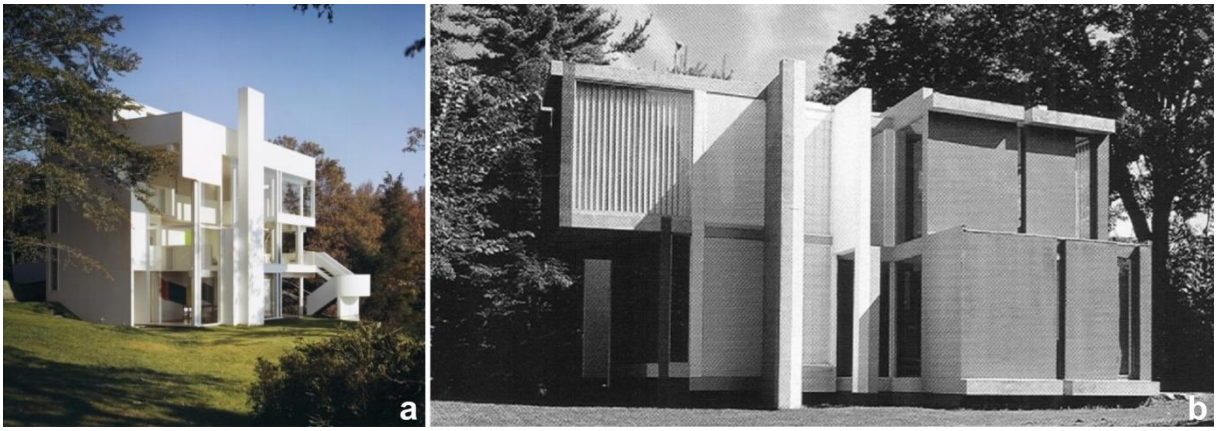


Fig. 21. Smith House designed by Richard Meier in Darien, Connecticut [a]; House IV (Frank House) by Peter Eisenman in Falls Village, Connecticut. [b]. Sources:http://architecture-history.org/architects/architects/MEIER/OBJ/ [a]; https://eisenmanarchitects.com/House-IV-1971 [b].

- **Europe**

In Europe, American-inspired trends such as the *Case Study House Program*, combined with elements of the *International Style*, were adapted to European contexts, where they influenced modernist homes with functional designs and an openness to natural surroundings. Richard Neutra's houses in Wuppertal, Germany—**Haus Kemper** (1965) and **Haus Pescher** (1968)—embody this influence, emphasizing light, spacious interiors and the seamless integration of indoor and outdoor spaces.

Fig. 22. Examples of houses designed by Richard Neutra in Europe: Haus Kemper in Wuppertal [a] and Haus Pescher in Wuppertal [b]. Sources: https://www.themodernhouse.com/journal/ [a-b].

The *International Style* also found strong representation in European residential architecture. The German architect Sep Ruf's '**Kanzlerbungalow'** in Bonn, originally intended as the official residence of West German chancellors and a venue for official visits, exemplifies this style with its open, low-profile design emphasizing transparency and accessibility. The structure consists of two interlocking square volumes, slightly offset from each other. These segments are almost entirely glazed, both on the building's exterior and toward its interior, thanks to two central courtyards. Sep Ruf also integrated several automated features, such as movable walls that could shift both horizontally and vertically—even retracting below floor level—offering a flexible solution that allowed for adaptable space arrangements.

Fig. 23. 'Kanzlerbungalow' in Bonn, Germany, designed by Sep Ruf. Source: https://www.hdg.de/haus-der-geschichte/historische-orte/kanzlerbungalow .

Europe also contributed unique Brutalist approaches to single-family houses, with André Wogenscky's **Villa Chupin** (1959) in France serving as an example. The box-like volume of the house is enclosed within a reinforced concrete frame, partially supported by steel and concrete columns. In contrast, Italian architect Leonardo Ricci's **Villa Taddei** near Florence (1964-1966) and Belgian architect Juliaan Lampens's **House van Wassenhove** further embody Brutalist principles, characterized by raw concrete surfaces in sculptural, additive forms.

Fig. 24. Villa Chupin designed by André Wogenscky [a]; Villa Taddei designed by Leonardo Ricci [b]. Sources: Wikimedia Commons [a]; http://www.capti.it/ [b].

3. Architecture of single-family houses in Poland (PRL) between 1945 and 1989

The architecture of the Polish People's Republic (PRL) was deeply shaped by the socio-political and economic framework of a centrally planned socialist state. Between 1945 and 1989, the built environment became a significant expression of the regime's ideological objectives, not only in terms of architectural forms and aesthetics but also in the sense of the state being perceived as the primary initiator and investor in most housing and public projects. A helpful approach to synthesizing this context is to divide it into conventional stages, reflecting the economic, social, and spatial conditions of the country throughout the studied timeframe[206].

In the immediate aftermath of World War II, Poland faced the monumental task of rebuilding cities devastated by the conflict. The primary focus was on the reconstruction of historical urban centers, particularly in Warsaw, where the meticulous restoration of the Old Town symbolized national resilience. At the same time, modernist ideals, rooted in the design philosophies of the 1920s and 1930s and emphasizing functionality and simplicity, were applied to new housing developments. However, the scarcity of materials and economic constraints limited the scale and scope of these efforts. From 1949, with increased Soviet influence, Socialist Realism became the dominant architectural style. The state mandated that architecture serve ideological purposes, glorifying the working class and socialism. Public buildings and residential complexes were characterized by monumental, neoclassical forms laden with ornamentation, intended to project grandeur and power[207]. Following Stalin's death and the political thaw of 1956, the rigid dictates of Socialist Realism were abandoned, and modernism experienced a strong resurgence. Architects began to explore more experimental and functionalist designs, focusing on rational planning, which reflected the influence of late modernist principles and return to architectural experimentation[208]. The 1970s, under Edward Gierek's leadership, were characterized by rapid industrialization and large-scale housing construction driven by economic reforms aimed at modernizing the country. Prefabricated housing became the dominant architectural solution as the state sought to address the housing shortage by building massive residential blocks in urban areas. The 1970s also saw the construction of significant public infrastructure that incorporated modernist elements and aimed to project an image of progress and modernization[209]. In contrast, the final decade of PRL architecture, from 1980 to 1989, was marked by severe political and economic turmoil. The economic crisis, coupled with widespread social unrest and the rise of the Solidarity movement, significantly slowed architectural production and led to a decline in the quality and scale of new projects. Prefabrication remained the primary method for residential construction, but buildings increasingly faced criticism for their poor quality, uniformity, and inadequate infrastructure. By the mid-1980s, early privatization and the gradual loosening of state

[206] M. Żmudzińska-Nowak, *Reflektor: Architektura i urbanistyka* [Reflektor: Architecture and Urban Planning] [in:] M. Żmudzińska-Nowak, I. Herok-Turska (eds.) *Reflektory. Interdyscyplinarne spojrzenie na dziedzictwo architektury Górnego Śląska drugiej połowy XX wieku* [Reflectors. An interdisciplinary perspective on the architectural heritage of Upper Silesia in the second half of the 20th century], Biblioteka Śląska, Katowice 2017, pp. 138-139.

[207] E.g. Palace of Culture in the Zagłębie Region in Dąbrowa Górnicza (1951-1958), Marszałkowska Residential District in Warsaw (1950-1952), and the Nowa Huta Residential District in Kraków (1949-1955).

[208] E.g. 'Supersam' store in Warsaw (1962), 'Spodek' Arena in Katowice (1964-1971), 'Cracovia' Hotel in Kraków (1959-1965).

[209] E.g. The passenger terminal at Warsaw-Okęcie Airport (1973-1975), the Central Railway Station in Warsaw (1972-1975), the Kielce Bus Station (1975-1984).

control began to subtly reshape the architectural landscape. Architects, increasingly influenced by postmodern aesthetics gaining traction in the West, sought to apply solutions observed in professional publications to new buildings[210]. Though still limited, private commissions and smaller-scale projects began to emerge, marking the initial departure from the centralized, state-controlled planning model that had defined PRL architecture. This period thus represented a transitional phase, shifting from the rigid architectural practices of previous decades toward the more diverse and market-driven approaches that would fully develop after the fall of communism in 1989.

Among the various building types developed during this era, the architecture of single-family houses represents a unique subject, balancing the state's collectivist ambitions with the desire for individual housing solutions. Although the situation of private single-family housing was, in many respects, less clear-cut than state-led projects, the research identified a set of determinants that had a crucial impact on the formation of single-family architecture during the Polish People's Republic (PRL) period. Among these are the country's economic conditions, associated legal determinants, and cognitive and social factors, which are discussed sequentially below.

3.1. Economic policy determinants

The first determinant is the issue of national economic policy during the period under study. This can be divided into two levels: the organization of architects' project work in the Polish People's Republic (PRL) and state mechanisms supporting individual residential development.

The first level forms the basis for characterizing the general conditions of architectural work. In the Polish People's Republic (PRL), the working conditions of architects were closely aligned with the demands of a centrally planned economy, which led to the establishment of state design offices. In 1945, following the end of World War II, the Biuro Odbudowy Stolicy [Office for the Reconstruction of the Capital] was established, tasked with rebuilding war-damaged Warsaw. This office served as a model for creating similar nationwide units responsible for coordinating urban design in other cities. In 1949, as part of the increasing centralization of the economy and architecture, a network of design offices, known as 'Miastoprojekt', was established and strategically located in key urban centers[211]. Each office was responsible for regional urban planning and design, responding to the directives and needs of local administrations in alignment with overarching central plans. By the early 1950s, specialized design offices began to emerge, focusing on different construction sectors, such as industrial, residential, commercial, and public utility buildings[212]. Until the late 1970s, these state design offices were the primary employment centers for architects. Although private architectural practice was strictly regulated and limited in the PRL, architects could take on small, individual commissions, primarily for single-family house projects. However, obtaining such a commission usually required approval from the leadership of state institutions, the architect's primary employer. This situation began to shift in the late PRL period in the late 1970s and early 1980s when architectural cooperatives started to emerge in Poland. These cooperatives offered architects greater autonomy in

[210] A. Cymer, *Architektura w Polsce 1945-1989* [Architecture in 1945-1989 Poland], Centrum Architektury and Narodowy Instytut Architektury i Urbanistyki, Warsaw 2019, p. 348.
[211] A. Basista, *Betonowe dziedzictwo* [The Concrete Heritage], Wydawnictwo Naukowe PWN, Warsaw 2001, p. 16.
[212] J. Trzcińska, *Instytuty i biura projektowe* [Institutes and design offices], [in:] *Zeszyty Gliwickie*, Gliwice 1986, Vol. XVII., pp. 32-38.

carrying out individual commissions, particularly for single-family homes. They organized architects who, rather than working as salaried employees in offices like 'Miastoprojekt', could take on projects in a more autonomous manner, contributing to greater architectural diversity while remaining in compliance with formal requirements and state oversight.

The second level of factors comprised state-provided tools to support individual residential construction, including long-term loans and the allocation of building plots. Detailed conditions and procedures for obtaining state support were outlined in publicly available supplements, such as legal guides, published in popular technical and construction magazines[213]. Since the late 1950s, a private investor with sufficient financial resources and an allotment of building materials could choose either to use centrally developed and approved designs for standard houses or to pursue a custom architectural design tailored to their needs. The following sections examine both possible cases for creating project documentation for a private single-family house.

- **Standardized Designs**

One significant form of state support for private housing initiatives was the provision of accessible sets of standard designs. The Government Presidium Resolution of March 15, 1957, specified which institutions would be responsible for preparing and distributing project catalogs[214]. The substantive development was overseen by the Municipal Construction Design Office in Warsaw, directly subordinate to the Ministry of Municipal Economy. The first nationwide catalog, containing designs for 17 standard single-family homes, was published in 1957, followed by a second catalog in 1958, containing a total of 60 such designs[215]. These designs were divided into two basic types: urban and rural houses. This arrangement is further confirmed in a commentary on the resolution, published in a thematic supplement to the journal 'Fundamenty' [The Fundaments] No. 26 from 1958, which states: '*So far, 77 standard and repeatable technical documentations for single-family houses have been developed as part of the Ministry of Municipal Economy's typification plan. This quantity includes 39 documentations for detached houses, 25 for semi-detached houses, and 13 for terraced houses*'[216]. In the 1960s, these national catalogs were gradually supplemented, yet they relied on the two previously mentioned sets of designs approved by the respective ministries. A significant expansion of standard house project offerings occurred with a series of publications of design sets in the second half of the 1970s, developed by the Cooperative-University Center 'Inwestprojekt' operating within the Central Union of Housing Cooperatives. This series implemented the guidelines outlined in the Council of Ministers' Resolution on the Development of Single-Family Housing in 1976-1980 from 1976[217]. To promote the standard designs, catalogs were published by the popular 'Arkady' publishing house. The first of these catalogs was published in 1976 and included 20 house designs. It was promptly supplemented the following year, with an introduction stating that the continuously updated catalogs

[213] E.g. 'Fundamenty' [The Fundaments].
[214] *The Resolution on State Assistance for Housing Construction from Citizens' Own Funds*, Resolution of the Presidium of the Government of March 15, 1957. The Monitor Polski of 1957, No. 26, Item 162.
[215] Z. Napieralska, *Zabudowa jednorodzinna Wrocławia z lat 50-tych – 80tych XX wieku* [Single-family housing in 1950s-1980s Wrocław], Doctoral Thesis, Wrocław Univeristy of Technology, Wrocław 2017, p. 67.
[216] *Zbiór przepisów dotyczących polityki mieszkaniowej - część I.* [Housing policy rulebook - Part I.], [in:] Dodatek dla Prezydiów Rad Narodowych do nr 26 „Fundamentów" [Supplement for Presidiums of National Councils to No. 26 of the 'Fundaments'], Warsaw 1958, p. 3.
[217] *The Resolution on the Development of Single-Family Housing Construction*, Resolution No. 128 of June 11, 1976. The Journal of Laws of 1976, No. 23, Item 134.

were to form the basis for the development of the Central Project Set included in the government program PR-5-03[218]. The work on standardized house sets continued, as evidenced by the National Single-Family House Project Set of 1983, presenting a total of 83 designs for detached and semi-detached houses. The introduction to this edition highlighted that 32 designs were previously published in catalogs from 1976, 1977, and 1979, while the remaining 52 were entirely new, previously unpublished designs[219].

Fig. 25. The covers of the first and second catalogs of standard single-family house designs from 1957 and 1958, along with an example of a detached house design from the 1958 catalog. Sources: private collection of the Author; photo by the Author.

However, national sets of house designs were not the only ones available. An interesting case is that of regional design sets, which in many instances were developed as a result of internal architectural competitions conducted within local design offices in close collaboration with county or provincial authorities[220]. These designs were created with consideration for local climatic conditions, material availability, and architectural traditions. In some cases, the design teams responsible for preparing regional sets were given directives to adapt national models to regional needs, for example, by making modifications in thermal insulation, roof shapes, or building materials typical for the given region. It should be noted that in such cases, collections of designs adapted to local conditions were clearly separated from those initially created with a specific region as the focus[221].

[218] Introduction, [in:] *Album projektów domów jednorodzinnych do powszechnego stosowania. Seria 77* [Single-family house design album for general use. Series 77], Wydawnictwo Arkady, Warsaw 1977, pp. 6-7.
[219] Introduction, [in:] *Krajowy zestaw projektów domów jednorodzinnych'83* [National set of single-family house designs'83], Wydawnictwo Arkady, Warsaw 1983, pp. 7-9.
[220] Introduction, [in:] *Album projektów domów jednorodzinnych* [Single-family house design album], Inwestprojekt-Śląsk, Katowice 1976, p. 3.
[221] Introduction, [in:] *Zestaw projektów budownictwa jednorodzinnego dla województwa bielskiego* [Set of single-family housing projects for the Bielsko Province], Wojewódzkie Biuro Projektów, Bielsko-Biała 1979, p. 3.

The standard house designs developed by state institutions were not characterized by sophisticated architectural solutions. From the outset, they were intended as a basic form of state support for builders, thus prioritizing economical solutions based on budget-friendly materials and construction methods. This approach stood in contrast to the opportunities afforded by private commissions for custom-designed homes, which, particularly in the 1960s and 1970s, were viewed as a hallmark of exclusivity.

- **Custom Designs**

Before the first catalogs of standard house designs were published from 1957 onward, the few new single-family homes being built relied almost exclusively on custom designs; however, the qualifications required of their designers diverged significantly. In the immediate postwar years, regulations were considerably more lenient. At that time, individuals without full professional credentials, such as technicians or builders, were permitted to design single-family homes. From the perspective of architectural quality and spatial order, this presented a problem, as Kazimierz Wejchert highlighted, noting the distortion of a system in which house designs were approved based on a schematic site plan and a very general spatial concept for the proposed house—often lacking even basic construction solutions[222].

The first major changes occurred in 1961, when the Land Management Act for Cities and Settlements became the first law in the People's Republic of Poland to regulate certain aspects related to the qualifications of individuals responsible for construction designs and the obligations of technical oversight in design[223]. Another significant development came with the Building Law enacted in 1974, which precisely defined the responsibilities of designers and introduced the requirement for appropriate education and professional experience as a foundation for independently performing technical functions in construction[224]. This law eliminated, among other things, the possibility for designers to operate without formal credentials, granting decisive authority to state institutions tasked with overseeing the quality and safety of buildings, including single-family houses.

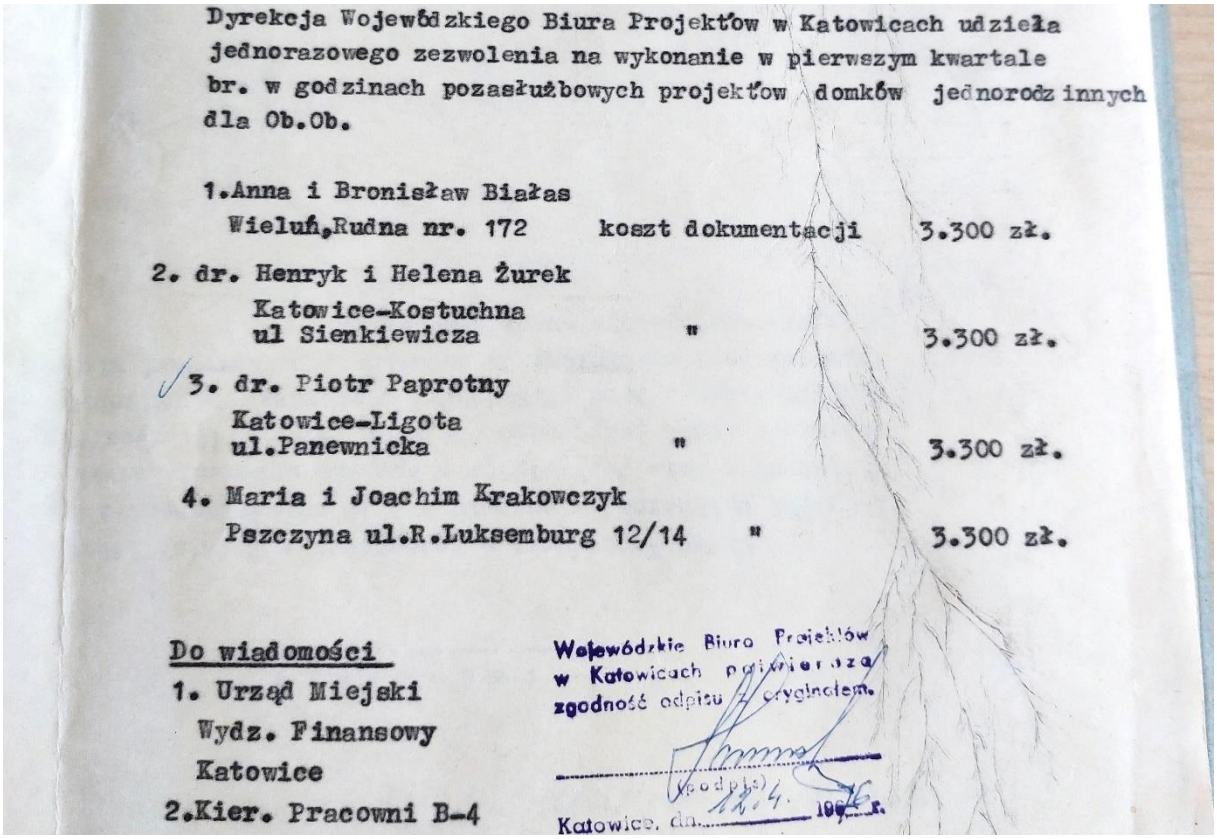
In the People's Republic of Poland, until the late 1970s, qualified architects were primarily employed in state design offices or research institutes. During working hours, they undertook centrally assigned design tasks related to public spaces and buildings. However, outside their office hours, they had the opportunity to work on private commissions. To do so, they were required to obtain formal permission from their supervisor to undertake projects outside regular working hours. The procedure for obtaining such permission included approval for additional work on the condition that these projects would not compete with state commissions and would comply with the guidelines in effect at the given design office. It was essential that private projects (such as a single-family house) be carried out outside of office hours and without the use of office materials or infrastructure, as doing so could

[222] K. Wejchert, *Problemy przestrzenne, społeczne, prawne i organizacyjne* [Spatial, social, legal, and organizational issues], [in:] O potrzebach i możliwościach rozwoju budownictwa jednorodzinnego w Polsce [*On the Needs and Opportunities for the Development of Single-Family Housing in Poland*], „Architektura" 1971, no. 3., Vol. XXV, p. 103.

[223] *The Act on the Management of Land in Cities and Settlements*, Act of July 14, 1961. The Journal of Laws of 1961, No. 32, Item 159

[224] The Building Law, Act of October 24, 1974. The Journal of Laws of 1974, No. 38, Item 229.

be regarded as a breach of professional ethics and law[225]. The architect had to submit an application, which was reviewed by a commission operating within the design office. Municipal or county authorities within the jurisdiction where the privately commissioned building was to be designed were informed of the supervisor's decision. Consequently, this alternative method of obtaining a design for a single-family house was feasible but encumbered with additional bureaucracy and state oversight.



Dyrekcja Wojewódzkiego Biura Projektów w Katowicach udziela jednorazowego zezwolenia na wykonanie w pierwszym kwartale br. w godzinach pozasłużbowych projektów domków jednorodzinnych dla Ob.Ob.

1. Anna i Bronisław Białas
   Wieluń, Rudna nr. 172 — koszt dokumentacji — 3.300 zł.
2. dr. Henryk i Helena Żurek
   Katowice-Kostuchna ul Sienkiewicza — " — 3.300 zł.
3. dr. Piotr Paprotny
   Katowice-Ligota ul. Panewnicka — " — 3.300 zł.
4. Maria i Joachim Krakowczyk
   Pszczyna ul. R. Luksemburg 12/14 — " — 3.300 zł.

Do wiadomości
1. Urząd Miejski
   Wydz. Finansowy
   Katowice
2. Kier. Pracowni B-4

Wojewódzkie Biuro Projektów w Katowicach potwierdza zgodność odpisu z oryginałem.

(podpis)

Katowice, dn. 12.4. 19[illegible] r.

Fig. 26. Example of a document granting permission to architect Wiktor Lipowczan, employed at the Provincial Design Office in Katowice, to undertake private commissions for single-family houses as part of activities outside of his office work. Source: Municipal Office Archives of Katowice; photo by the Author.

[225] *Sprawy pracownicze* [Employee affairs], [in:] Regulamin wewnętrzny „Miastoporojektu" Katowice [Rules of Procedure of the 'Miastoporojekt' Katowice], 1965. From the collection of the Archives of the Institute of Architecture Documentation of the Silesian Library in Katowice, collection of Jerzy Gottfried.

3.2. Legal determinants

The second significant group of factors with a considerable impact on shaping the architecture of single-family houses within the studied timeframe comprises legal determinants. A valuable compilation and discussion of legal acts related to single-family housing were provided in Zuzanna Napieralska's doctoral dissertation[226]. However, given the focus of her research on single-family houses built by housing cooperatives, it was considered appropriate to expand this analysis based on primary documents to cover the legal framework applicable to private investors constructing homes with their own resources. The regulatory texts (in the form of laws, regulations, resolutions, decrees, and ministerial orders and circulars) were sourced from the Internet Legal Acts System (ISAP). Additionally, supplements to the journal '*Fundamenty*', published in the late 1950s and throughout the 1960s, proved helpful, as they contained extracts from new housing policy regulations accompanied by expert commentary.

It should be noted that, depending on the period and in accordance with prevailing regulations, the Polish state bore various official names. Until 1952, the name *Republic of Poland* was in use (often colloquially referred to as *People's Poland*). The new constitution enacted on July 22, 1952, designated the country as the *Polish People's Republic* (PPR), a designation later repealed on December 31, 1989, by the Constitution of the Republic of Poland. Accordingly, this study adopts distinctions consistent with the legal and historical context, using *Republic of Poland* and *Polish People's Republic* where appropriate.

- **Republic of Poland (1945–1952)**

For five years following the end of World War II, the Republic of Poland adhered to the building regulations enacted in the late 1920s, which had been amended and supplemented until 1939. The consolidated text of the Ordinance of the President of the Republic of Poland on Building Law and Settlement Development from 1939 comprised provisions related to the technical requirements for buildings intended for human habitation. These regulations did not define preferred floor areas for newly constructed residential houses or the sizes of building plots[227].

The first regulation explicitly defining the floor area of newly constructed houses was the Resolution of the Presidium of the Economic Committee of the Council of Ministers of May 2, 1950, on the Principles and Organizational Forms of Individual Construction. According to this regulation, the usable area of new homes was to be maintained between 40-80 m². This floor area limitation was linked to financial assistance provided by the state to builders in the form of an interest-free loan (covering up to 75% of the house's estimated construction cost). If the upper limit of the planned house area was exceeded, the loan was canceled. The regulation also included a provision on the size of building plots allocated by the state: *'Plots granted for residential construction purposes, whether for detached or semi-detached houses, may not be smaller than 300 m², nor exceed 1,000 m².*' It was

[226] Z. Napieralska, *Zabudowa jednorodzinna Wrocławia ...op. cit.*, pp. 60-65.
[227] Ordinance of the President of the Republic of Poland on Building Law and Settlement Development of February 16, 1928 (consolidated text published on February 28, 1939), *Journal of Laws of the Republic of Poland*, 1939, No. 22, item 141.

further specified that, for dispersed single-family construction on the investor's pre-owned land, no specific plot size range was required[228].

- **Polish People's Republic (1952–1989)**

While the aforementioned resolution of May 2, 1950, did not define a single-family house, the Decree of December 10, 1952, on the Transfer by the State of Non-Agricultural Real Estate for Housing Purposes and for the Construction of Individual Single-Family Houses defined a single-family house as *'a house or an independent part of a semi-detached house, with no more than 5 living rooms and a total living area not exceeding 110 m² (…)*'. The text further specified that auxiliary spaces, such as bathrooms, toilets, vestibules, pantries, storage rooms, corridors, stairs, and windowless rooms, were not included in the calculation of living area. The decree also reiterated the possibility of state assistance to the investor through the allocation of building plots: *'The subject of transfer may be plots of land located in cities and urban settlements not exceeding 1,000 m², designated for the purpose of individual construction of single-family houses and situated in areas allocated for this purpose*'[229].

The change in guidelines regarding the allocation of building plots was introduced by the Resolution on State Assistance for Individual Housing Construction, adopted by the Presidium of the Government on May 8, 1954. It stipulated that the procedural conditions for the state's allocation of building plots remained unchanged, but their area should not exceed 600 m². Additional guidelines specified that, depending on factors such as location or population density, the plot size could be reduced to 300 m² or increased to 1,000 m². The resolution also modified the definition of single-family houses, understood as *'a residential building intended, in principle, for one family, comprising up to four rooms with a kitchen, and a total usable area not exceeding 110 m².*' Compared to the 1952 decree, it is evident that the calculation system was changed from living area to usable area. The resolution also added a clause stating, '*Individual houses may be constructed as detached, semi-detached, or terraced houses'*[230]. Noteworthy is the Order of the Minister of Municipal Economy published in the same year, which supplemented the above resolution and highlighted the possibility of situating individual housing construction in resort towns and within rural communal areas, rather than solely within city administrative boundaries. However, no definition of a holiday house was provided[231].

The year 1957 brought an extension of the existing regulations on individual residential construction, along with significant changes affecting its architectural design. The Resolution of the Presidium of the Government of March 15 on State Assistance for Housing Construction Financed by Private Funds introduced substantial revisions in defining single-family houses—both in terms of the number of rooms and usable floor area. The provision specifying a fixed, maximum number of rooms

[228] Resolution of the Presidium of the Economic Committee of the Council of Ministers of May 2, 1950, on the Principles and Organizational Forms of Individual Construction, *Monitor Polski* (Official Gazette of the Republic of Poland), 1950, No. A-57, item 667.
[229] Decree of December 10, 1952, on the Transfer by the State of Non-Agricultural Real Estate for Housing Purposes and for the Construction of Individual Single-Family Houses, *Journal of Laws of the Polish People's Republic*, 1952, No. 49, item 327.
[230] Resolution No. 270 of the Presidium of the Government of May 8, 1954, on State Assistance for Individual Housing Construction, *Monitor Polski* (Official Gazette of the Republic of Poland), 1954, No. A-47, item 642.
[231] Order of the Minister of Municipal Economy of October 11, 1954, on the Implementation of Resolution No. 270 of the Presidium of the Government of May 8, 1954, on State Assistance for Individual Housing Construction, *Monitor Polski* (Official Gazette of the Republic of Poland), 1954, No. A-93, item 1261.

was removed. The primary restriction on the usable area of single-family houses was maintained at 110 m², although an allowance was introduced for increasing the usable area in cases where part of the residence was designated for work-related purposes to enable the owner's professional activities (e.g., for a large library, medical and dental offices, art studios, etc.)[232]. In such cases, the total usable area of the dwelling could exceed 110 m² but was not to exceed 140 m². The Act on the Sale by the State of Residential Houses and Building Plots, adopted on May 28, 1957, introduced two changes regarding land designated for single-family residential development. The possibility of land allocation guaranteed by the state under the decree of December 10, 1952, was replaced by the possibility of land sale under this act. It was stipulated that both building plots and already constructed single-family houses located in cities and settlements could be sold to individuals and cooperatives only as temporary ownership. The sale of real estate was conducted through agreements with county or municipal presidiums, in the case of cities with county rights. The second key element was the removal of the fixed maximum area for building plots[233]. Another act adopted on the same day—the Act on the Exclusion of Single-Family Houses and Units in Housing Cooperative Buildings from Public Management of Premises, dated May 28, 1957—regulated the exclusion of single-family houses from public management of premises, specifically those houses with a usable area not exceeding 110 m², with a conditional allowance up to a maximum of 140 m². This meant that any single-family house exceeding this prescribed area remained at the disposal of the state, which could, among other things, involve the state-mandated allocation of additional occupants[234].

In 1958, a ministerial circular was published regarding the calculation of the usable area of residential units constructed as part of housing development financed by private funds. It provided a more precise definition of the usable area of houses: *'The usable area of residential units in both single-family houses, small residential buildings, and multi-family buildings is understood as the area of all rooms except for basements, attics, staircases, and other areas shared by two or more apartments.*' The following section states: *'In single-family houses, the usable area of residential units includes: half of the horizontal projection of staircases on each floor and the area of rooms with a minimum height of 2.20 m, if intended for future residential use. Garages are not included in the usable area of residential units'*[235]

In the 1960s, a series of legal acts were published regarding individual housing construction financed by private funds; however, these primarily addressed issues related to the organization of state financial assistance (loan amounts, interest rates, etc.). Since these regulations did not affect building forms or the usable area of single-family houses, they have been omitted from this study.

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[232] Resolution of the Presidium of the Government of March 15, 1957, on State Assistance for Housing Construction Financed by Private Funds, *Monitor Polski* (Official Gazette of the Republic of Poland), 1957, No. 26, item 159.

[233] Act of May 28, 1957, on the Sale by the State of Residential Houses and Building Plots, *Journal of Laws of the Polish People's Republic*, 1957, No. 31, item 132.

[234] Act of May 28, 1957, on the Exclusion of Single-Family Houses and Units in Housing Cooperative Buildings from Public Management of Premises, *Journal of Laws of the Polish People's Republic*, 1957, No. 31, item 133.

[235] Circular No. 15 of the Minister of Municipal Economy and the Chairman of the Committee for Urban Planning and Architecture of April 26, 1958, on Calculating the Usable Area of Residential Units Constructed as Part of Housing Development Financed by Private Funds, *Monitor Polski* (Official Gazette of the Republic of Poland), 1958, No. 39, item 229.

It was only with the Regulation of the Council of Ministers of June 27, 1974, on the Implementation of Certain Provisions of the Housing Law that new definitional changes were introduced. The updated definition of the usable area of residential units stipulated that the living area now included the kitchen and other auxiliary spaces (in contrast to the 1958 definition). The living area of a unit was defined as the total area of all rooms. Another addition was the specification of a holiday house: *'A holiday house is a building located in a rural area or in a region designated for recreational purposes, serving the owner and their relatives for leisure. The usable area of a holiday house may not exceed 110 m²'*[236].

Significant changes were introduced by the regulations enacted in 1980. Under the Regulation of the Council of Ministers of June 13, amending the Regulation on the Implementation of Certain Provisions of the Housing Law, the total floor area became the measurement standard for single-family houses. Total floor area was defined as the area of all floors, including underground floors, measured along the external perimeter of the walls. It included the area of galleries and loggias; attic spaces or parts thereof, as well as attic rooms with a height, measured between the roof or ceiling structure, of 1.90 m or more. In line with these provisions, the area restriction for houses was also revised: *'The total floor area of such houses must not exceed: for a single-family house—220 m², or, in cases where part of the residence is designated for the professional activities of the owner, their children, or parents—270 m²'*.[237] The last legal act selected for this study is the Regulation of the Council of Ministers of November 9, 1987, on the Implementation of Certain Provisions of the Housing Law. Legislators decided to revert not only to the method of calculating the usable area of residential units but also to the legal framework from 1957 concerning the floor area limits for single-family houses supported by the state: 'The usable area of a single-family house may be up to 110 m², or, in cases where part of the residence is used by the owner, their children, or parents for professional activities constituting their main source of income—up to 140 m².' *A new provision introduced an exemption from area limitations when the house included one independent residential unit or 'no more than six rooms'.*[238]

The table below summarizes the conditions derived from the above legal acts that have regulated the characteristics of building plots and single-family residential construction over the years.

[236] Regulation of the Council of Ministers of June 26, 1974, on the Implementation of Certain Provisions of the Housing Law, *Journal of Laws of the Polish People's Republic*, 1974, No. 27, item 158.
[237] Regulation of the Council of Ministers of June 13, 1980, amending the Regulation on the Implementation of Certain Provisions of the Housing Law, *Journal of Laws of the Polish People's Republic*, 1980, No. 14, item 64.
[238] Regulation of the Council of Ministers of November 9, 1987, on the Implementation of Certain Provisions of the Housing Law, *Journal of Laws of the Polish People's Republic*, 1987, No. 39, item 229.

		Republic of Poland	People's Republic of Poland (PPR)					
		1950	1952	1954	1957	1974	1980	1986
BUILDING PLOT	Minimum area	300 m²	—	—	—	—	—	—
	Maximum area	1000 m²	1000 m²	600 m²	—	—	—	—
SINGLE-FAMILY HOUSING (on the assumption that there is one dwelling in the building)	Limit of the number of rooms	—	5	4	—	—	—	—
	Applicable: *usable area*	●		●	●	●		●
	Applicable: *living area*		●					
	Applicable: *total area*						●	
	Limit of the building area	80 m²	110 m²	110 m²	110 m²	110 m²	220 m²	—
	Possibility of increasing the house's area	—	—	—	140 m²	140 m²	270 m²	—

Fig. 27. Tabular summary of the legal conditions regulating the requirements for building plots and the buildings designed on them. Elaborated by the Author.

3.3. Access to information

Another distinct group of factors encompasses a set of phenomena that enabled Polish architects, during the studied period, to facilitate contact during the studied period with the architectural community and emerging architecture in other countries: both within the sphere of Soviet influence and beyond the 'Iron Curtain': in the so-called Western countries.

The first example of such actions was the facilitation of international travel for Polish architects. Beginning in the mid-1950s, selected members of the Association of Polish Architects (SARP) were granted permission to visit foreign western countries[239]. These early trips were significant, as they marked a break from the prior period of isolation under Stalinist policies. Upon their return, these architects often shared their experiences in lectures, attracting considerable interest from peers eager to learn about architectural developments abroad[240]. Notably, there are documented cases of Polish architects attending international exhibitions that played a crucial role in the development of global

[239] E.g. France, Switzerland, Sweden, and Italy.
[240] A. Basista, *Betonowe dziedzictwo*...op. cit., pp. 55-56.

architecture (as discussed in the previous subsection of this chapter) such as Expo '58 in Brussels[241]. In the 1960s, opportunities for Polish architects to travel abroad for professional purposes were still limited but gradually expanding, especially within the context of state-sponsored projects and international collaborations. These trips were more frequent to other socialist countries within the Eastern Bloc, where architects could participate in conferences, exchange programs, and cooperative projects that aligned with the ideological and technical goals of the socialist states. Trips to Western countries were rarer and usually required higher-level approval, often granted to architects involved in prestigious projects or academic roles where representing Polish architecture internationally would benefit the state's image. Additionally, there were limited opportunities for Polish architects to secure short-term contracts or academic positions abroad, often through foreign trade offices or government-backed exchanges. By the mid-to-late 1960s, a modest number of architects also worked on large-scale development projects in countries outside Europe, especially in the Middle East and Africa, typically through contracts arranged by state-run foreign trade agencies[242]. These assignments allowed architects to gain international experience while still operating within the framework of state oversight.

Architects staying abroad were also, in many cases, asked to serve as foreign correspondents for leading professional journals, such as 'Architektura' and 'Projekt'. This aspect leads to the next significant source of knowledge about foreign architectural trends: national professional journals and published books. In the 1950s, as Poland emerged from the Stalinist era and contact with the West was minimal, these journals primarily showcased architecture from other socialist countries, with occasional features on Western trends. Articles often included detailed descriptions of notable foreign projects, albeit carefully selected to align with socialist values[243]. Nonetheless, these journals provided a first glimpse into broader architectural discourses outside Poland. During the 1960s, with gradually improving access to foreign publications and an increasing number of architects traveling abroad, professional journals became even more valuable. Reports from architects who had attended international conferences or worked abroad were frequently published, offering insights into Western European and American architecture. Journals often included analyses of modernist trends, new construction materials, and innovative building forms, helping Polish architects integrate these ideas into the local context. By the 1970s, journals had established themselves as vital resources for architectural education, not only reporting on projects and theories from both socialist and Western countries but also translating and reviewing influential foreign texts. Some journals expanded to cover critical topics like sustainability and urban density, which were becoming globally relevant. The regular publication of foreign correspondents' reports and translated articles allowed Polish architects to stay informed about emerging architectural movements.

Books, particularly those by authors like Tadeusz Barucki, were another significant source of information on foreign architectural trends for Polish architects during the 1960s, 1970s, and 1980s. Barucki, a prominent architectural critic and historian, traveled extensively and documented his observations in books that offered Polish readers insights into international architecture, which were

[241] In the Archives of the Institute of Architecture Documentation at the Silesian Library in Katowice, within the collection related to architect Henryk Buszko, there are written accounts of his visits to the 1958 World Expo in Brussels.

[242] Ł. Stanek, *Miastoprojekt goes abroad: the transfer of architectural labour from socialist Poland to Iraq (1958–1989),* "The Journal of Architecture" 2017, Vol. 22, Issue 4, pp. 786-811.

[243] T. P. Szafer, *Współczesna Architektura Polska - Contemporary Polish Architecture*, Wydawnictwo Arkady, Warsaw 1988, p. 6.

otherwise difficult to access due to political constraints[244]. His books covered both Eastern and Western architectural developments, providing in-depth analysis and visual documentation that were invaluable for architects in Poland seeking to broaden their knowledge. His written accounts remain highly valuable even today, as during his international travels, he had the opportunity to meet and engage in direct conversations with some of the most influential architects active worldwide in the second half of the 20th century[245]. In addition to individual authors like Barucki, the 'Arkady' publishing house contributed to the dissemination of international architectural knowledge in Poland by producing book series dedicated to foreign architecture[246]. These series, published throughout the PRL era, aimed to broaden Polish readers' exposure to architectural developments beyond the Eastern Bloc. 'Arkady' publishing house collaborated with prominent architects, critics, and historians to bring detailed studies on architectural movements, influential designers, and noteworthy projects from across Europe, North America, Asia, and Latin America[247].

The final element supporting Polish architects' exposure to foreign architecture was the availability of international architectural journals in the libraries of state design offices, research institutes, and SARP branches, which were increasingly stocked with foreign professional press. Among the journals and publications available in institutional libraries were those from both communist and Western countries. These resources collectively helped bridge the knowledge gap caused by limited travel opportunities and the constraints of the Iron Curtain, enriching the architectural discourse in Poland and expanding the professional horizons of its architects.

Essentially, each design office in the country could independently decide on the selection of titles to acquire. For the purposes of this research, a review was conducted of Western journals available to employees of the 'Miastoprojekt' offices in Katowice and Tychy, as well as the Katowice branch of Association of Polish Architects (SARP)[248]. These included British journals (*Architectural Design*, *Architectural Review*), German journals (*Bauen+Wohnen*, *Baumeister*), French journals (*L'architecture d'aujourd'hui*), and Swiss journals (*Werk*, *Werk, Bauen + Wohnen*). Architects could access them at any time, including outside working hours. Accounts from architects professionally active during the PRL era indicate that these journals often served as significant sources of inspiration in the creative process for additional private commissions, including designs for single-family houses[249].

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[244] M. Żmudzińska-Nowak (ed.), *Wprowadzenie* [Editor's Introduction], [in:] M. Żmudzińska-Nowak (ed.), *Tadeusz Barucki. Architekt – podróżnik – badacz* [Tadeusz Barucki. Architect - traveller – explorer], Wydawnictwo Biblioteki Śląskiej, Katowice 2022, pp. 7-8.

[245] Tadeusz Barucki had the opportunity to conduct personal conversations with, among others, Alvar Aalto, Richard Neutra, Walter Gropius, Oscar Niemeyer, and Konstantin Melnikov.

[246] A Polish publishing house established in 1957, specializing in books on the theory and history of architecture and the visual arts, with a significant contribution to the popularization of architecture within the country.

[247] Noteworthy are two popular book series: '*Architektura i architekci świata współczesnego*' [Architecture and Architects of the Contemporary World] and '*Mała encyklopedia architektury'* [A Small Encyclopedia of Architecture].

[248] A substantial resource of the internal library collections from the mentioned institutions is now held in the Archives of the Institute of Architecture Documentation at the Silesian Library in Katowice.

[249] Based on interviews conducted with architects Jerzy Gottfried, Jurand Jarecki, and Jerzy Witeczek.

Fig. 28. Examples of covers from issues dedicated to single-family housing architecture from professional journals that were previously held in the technical library of the state design office 'Miastoprojekt Nowe Tychy'. Source: Archives of the Institute of Architecture Documentation at the Silesian Library in Katowice, photo by the Author.

3.4. Social factors

The phenomenon of private single-family house development during the PRL period was significantly shaped by social factors, including cultural aspirations and status symbolism, as well regional disparities in wealth and level of education.

Owning a private single-family house was often viewed as a symbol of social status and personal achievement. For many, building a home represented stability and independence within a system that restricted private property ownership, making it a socially desirable goal despite economic constraints. Exposure to Western architectural styles and layouts—whether through media, available journals, or the travels of some professionals—shaped preferences in housing design. Modernist influences began to impact new home designs, representing a subtle form of cultural openness and adaptation to global trends, despite political constraints. Among the educated clientele, who were often the primary patrons commissioning private single-family homes, there was a high regard for architects' professional competence. Clients viewed architects as top specialists, relying heavily on their aesthetic and design suggestions—a trend evidenced in numerous interviews and discussions. This elevated level of trust enabled architects to introduce fresh trends and explore creative architectural expression, opportunities that would not have been feasible within the constraints of a state design office.

A second social factor was the level of wealth among residents of different regions of the country. Economic conditions across various regions of Poland directly influenced both the feasibility and nature of private home construction. In wealthier regions, often characterized by a higher concentration of industrial development, families were more likely to invest in private single-family homes. In a 1971 article titled *'Perspectives on the Development of Single-Family Housing in Poland'*, Andrzej Stasiak identifies this factor as crucial[250]. A synthesized analysis of private investment in single-family housing

[250] A. Stasiak, *Perspektywy rozwoju budownictwa jednorodzinnego w Polsce* [Perspectives on the Development of Single-Family Housing in Poland], "Architektura" 1971, Vol. XXV, No. 3., pp.81-82.

from 1961 to 1968 reveals that the highest levels during this period were recorded in the area of today's Silesian Voivodeship, specifically in the then Katowice Voivodeship[251].

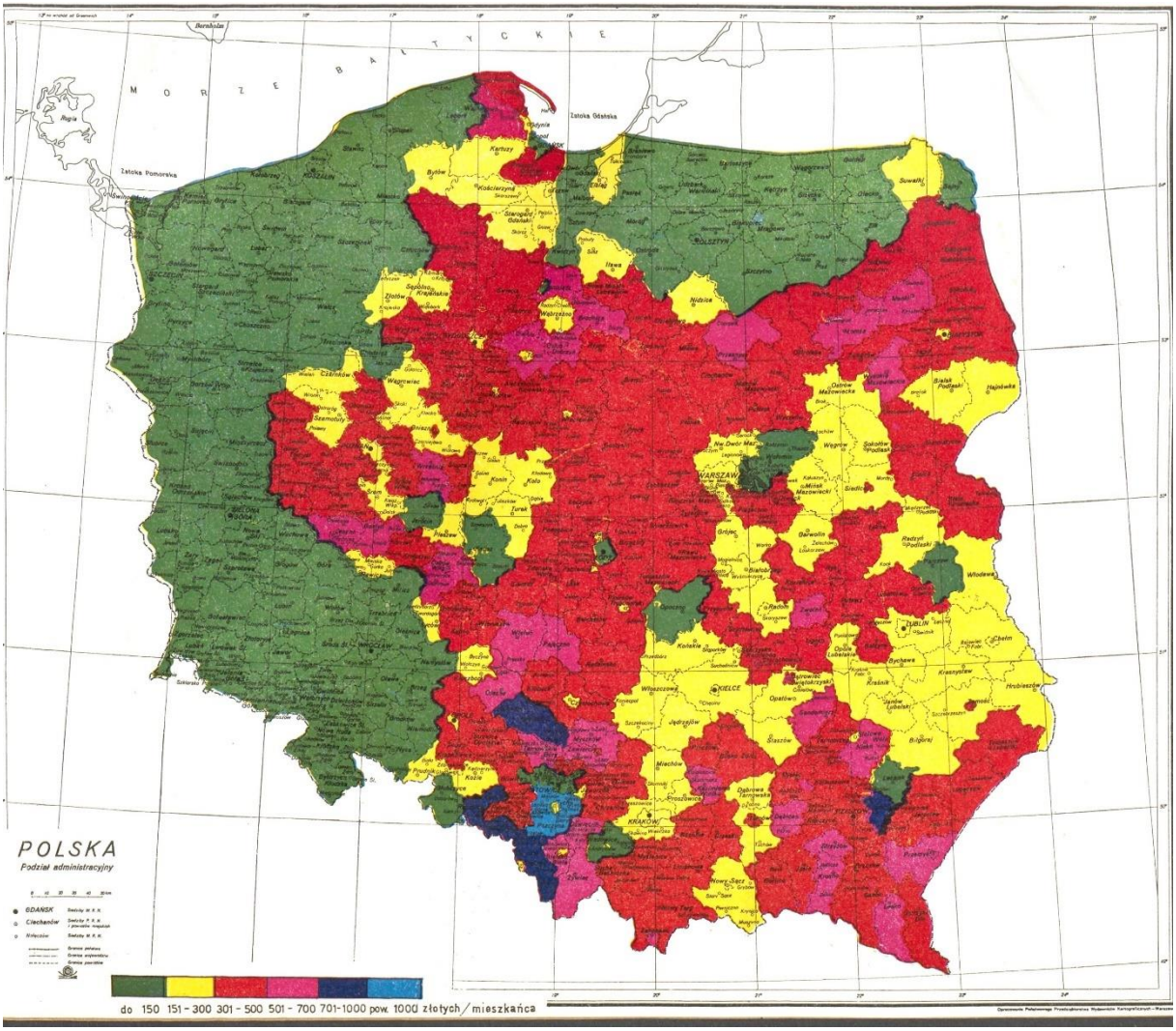

Fig. 29. Map of Poland illustrating the level of investment in private housing construction across various regions from 1961 to 1968. The former Katowice Voivodeship, now part of the Silesian Voivodeship, is marked in blue, indicating the highest per capita investment level. Source: A. Stasiak, *Perspektywy rozwoju budownictwa jednorodzinnego w Polsce* [Perspectives on the Development of Single-Family Housing in Poland], „Architektura" 1971, Vol. XXV, No. 3., p. 83.

[251] Investments and Fixed Assets by County 1961–1969. Regional Statistics No. 21. Central Statistical Office, Warsaw, 1970.

3.5. Recognized examples of custom-designed single-family houses

This study synthesizes examples of private single-family houses constructed within the defined time frame in Poland, distinguished by their unique architectural solutions, which garnered attention and were documented over the decades in accessible publications. These publications were reviewed as part of the literature review discussed in Chapter II of this dissertation. Information on notable Polish houses from the PRL era was drawn both from publications contemporaneous with the PRL period (up to the late 1980s), which are now viewed from a contemporary perspective as historical sources, and from more recent works that reference or describe these structures from a historical perspective, recognizing them as examples of architectural heritage. Notable examples of single-family homes are organized chronologically, and where multiple houses were designed by the same architect, further grouped by the architect discussed. This structure follows a similar methodology to that used in the review of historically significant key houses in the preceding sections of this chapter.

Before 1957 and the political thaw, one would search in vain for even a mention of private single-family housing in professional journals and other publications. This absence is linked not only to the limited scale of such construction but also to political factors, as any promotion of private initiatives was particularly unwelcome to the authorities. One of the first widely documented private commissions was a single-family house on Halczyna Street in Kraków, designed in 1958 by Zbigniew Gądek (1925-1998). As emphasized in press note in the journal 'Architecture' in 1963, the house stood out within the district for the clarity and dynamism of its facade outline, which did not follow the building's cross-section[252]. The design of the splayed walls of the loggia, located on the second floor and facing the garden, was praised as optimal for the Polish climate, capturing highly desirable and, at the same time, offering effective protection from rain and wind to the facade and interior[253].

Another single-family house designed by Zbigniew Gądek, gaining considerable attention at the time, was built on a steep slope in Żegiestów in the mid-1960s. Photographs of its model and drawings of the floor plans and sections were published multiple times in 'Architektura' as well as in Tadeusz Przemysław Szafer's *Architecture Diaries* series[254]. A 1966 article presenting two of Gądek's private house designs describes innovative technical solutions for the Żegiestów house, including an elevator shaft connecting the garage to the main living area 14 meters above[255]. The lift served as both a freight elevator and for transporting fuel to the boiler room located within the house. Both of Gądek's mentioned houses remain standing, with the house on Halczyna Street in Kraków preserved in its original state, unlike the one in Żegiestów, which has undergone significant alteration[256].

[252] W. Bryzek, *Kraków - Przegląd realizacji budynków mieszkalnych* [Krakow - Overview of residential building realisations], „Architektura" 1963, No. 6, p. 196.
[253] A. Syska, *Willa w Łobzowie* [Villa in Łobzów], [in:] R. Nakonieczny (ed.), *Słynne wille Polski* [Great Villas od Poland], Voibos, Praha 2013, pp. 253-254.
[254] T. P. Szafer, *Nowa Architektura Polska. Diariusz lat 1966-1970* [New Polish Architecture. Diary from 1966-1970], Wydawnictwo Arkady, Warsaw 1972, p. 29.
[255] Z. Gądek, *Dwa domy jednorodzinne* [Two single-family houses], "Architektura" 1966, No. 7, pp. 304-305.
[256] Based on on-line verification conducted by the Author using the Google Maps platform (Street View images available as of 2023).

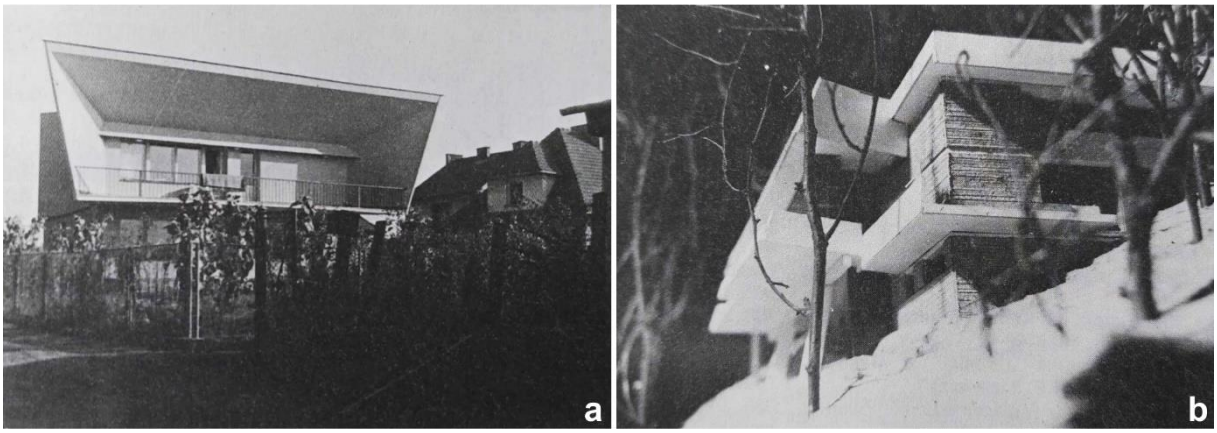

Fig. 30. Photograph from the 1960s of the single-family house on Hulczyna Street in Kraków designed by Zbigniew Gądek [a]; Photograph from the 1960s of the model of the single-family house on a slope in Żegiestów designed by Zbigniew Gądek [b]. Sources: T. P. Szafer, *Polish Contemporary Architecture*, Arkady Publishing, Warsaw, 1988, p. 127 [a, b].

Another single-family house that drew the attention of critics and architectural historians is the own home of architect Witold Lipiński (1923–2005) on Moniuszki Street in Wrocław. This house has been featured extensively in both press and books, and due to its distinctive form, it stands as a recognizable landmark within 20th-century architecture in Wrocław[257]. Its geodesic dome structure, inspired by concepts of minimal surfaces, was both energy-efficient and innovative in its use of materials, utilizing ferrocement to achieve a durable yet lightweight form. Inside, the open-plan layout was notably forward-looking, focusing on functional space and optimized thermal performance. The architect, drawn to what could now be described as ecological building principles, aimed to create a personal residence that integrated with the natural environment as he envisioned it. Although the house was classified as experimental, regulations restricted its area to a maximum of 85 square meters. Lipiński, however, creatively bypassed this limitation by incorporating a mezzanine within the dome, adding extra space for a studio. The structure consists of two sections linked by a vestibule: the living area housed within the dome and a semi-cylindrical garage[258]. After the architect and original owner's passing, contemporary architect Zbigniew Maćków acquired the property, recognizing its historical and architectural significance. His efforts ensured the residence's preservation and reignited interest in its ecological and design principles[259]. It is worth noting that between late 2023 and early 2024, the Museum of Architecture in Wrocław hosted an exhibition titled *'Kształt marzeń. Architektura Witolda Lipińskiego'* [The Shape of Dreams: The Architecture of Witold Lipiński][260]. The exhibition showcased drawings and models of three other single-family houses designed by Lipiński, each characterized by the aesthetic of organic architecture.

[257] A. Seidel-Grzesińska, *Dom własny architekta Witolda Lipińskiego przy ul. Stanisława Moniuszki 33* [Architect Witold Lipiński's own house at 33 Stanisława Moniuszki St.], [in:] J. Harasimowicz (ed.), *Atlas architektury Wrocławia* [Architectural Atlas of Wrocław], Issue 2, Wrocław 1998, p. 129.

[258] E. Przesmycka, *Willa Lipińskich* [Lipinski Villa], [in:] R. Nakonieczny (ed.), *Słynne wille Polski* [Great Villas od Poland], Voibos, Praha 2013, pp. 246-248.

[259] P. Prus, *Zbigniew Maćków ratuje dom igloo Witolda Lipińskiego* [Zbigniew Maćków is preserving Witold Lipiński's iconic "Igloo House."], https://architektura.muratorplus.pl/, access: 20.07.2023.

[260] Information about the exhibition: https://ma.wroc.pl/pl/wystawy/archiwum-wystaw/ksztalt-marzen/, access: 27.06.2024.

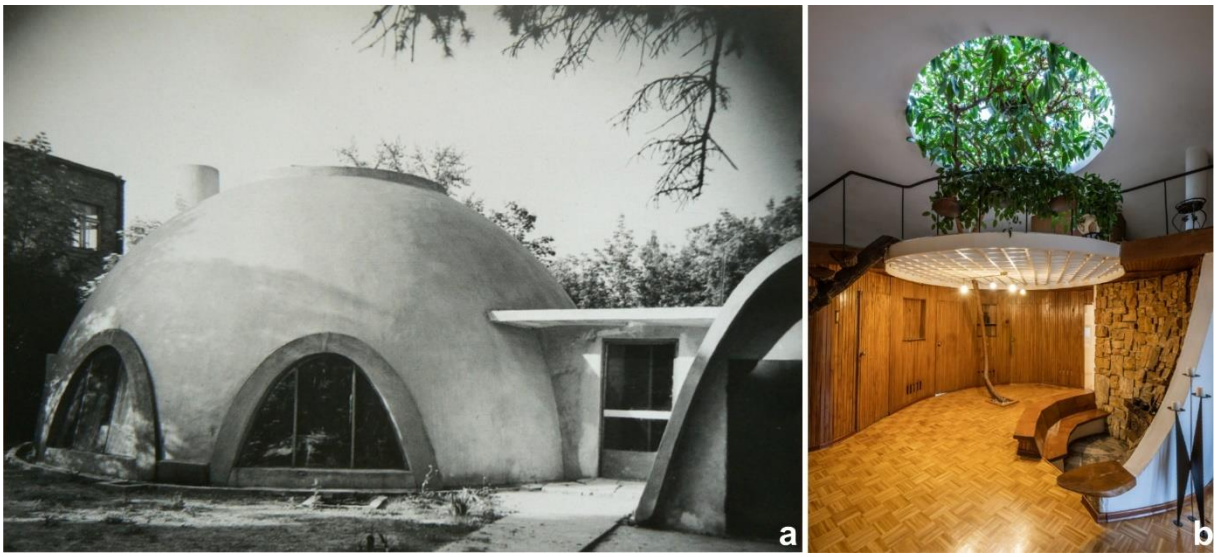

Fig. 31. Photograph from the 1960s of the single-family house on Moniuszki Street in Wrocław designed by Witold Lipiński [a]; Interior photograph from 2022 of the single-family house on Moniuszki Street in Wrocław, designed by Witold Lipiński; photograph by Maciej Lutko [b]. Sources: J. Mierzecka, *Wrocław Stary i Nowy* [Wrocław Old and New], Zakład im. Ossolińskich we Wrocławiu, Wrocław 1967 [a]; https://www.wroclaw.pl/, access: 17.07.2024 [b].

An example of a residence integrated into its natural setting, as documented in *Architectural Diaries* by Szafer, is the personal home of architect Jan Szpakowicz in Piaseczno near Warsaw. Designed in 1967 on a densely forested plot, the house remains almost invisible from the street[261]. It consists of nine reinforced concrete volumes connected by ceilings, each housing functions that require enclosed spaces, such as the kitchen, bathrooms, and bedrooms. The glass-enclosed area between these volumes, covered with a flat ceiling, serves as the living room and studio. The reinforced concrete blocks containing the living spaces were insulated from the inside, preserving the austere exterior aesthetic. Due to its modular design, the house was relatively easy to construct; Szpakowicz recalls building it himself, with the help of a foreman and friends[262]. Following the completion of his residence, Szpakowicz went on to design two other houses nearby in the 1970s, reflecting a similar spatial philosophy. In 2021, the Museum of Architecture in Wrocław organized an exhibition providing an opportunity to view original drawings and models of Szpakowicz's single-family houses[263]. Unfortunately, despite growing interest in this unique architectural style, the last of the building's new owners neglected the property for years, using the former Szpakowicz family home as storage. Ultimately, the house was demolished in 2013[264].

[261] T. Malkowski, *Dom własny Jana Szpakowicza* [Jan Szpakowicz's own home], [in:] R. Nakonieczny (ed.), *Słynne wille Polski* [Great Villas od Poland], Voibos, Praha 2013, pp. 265-267.

[262] Ł. Wojciechowski, A. Czupkiewicz, *Interview with Jan Szpakowicz*, [in:] *Jan Szpakowicz. Przestrzeń elementarna* [Jan Szpakowicz.Elementary space], Muzeum Architektury we Wrocławiu, Wrocław 2021, pp.12-13.

[263] Information about the exhibition: https://ma.wroc.pl/pl/wystawy/archiwum-wystaw/jan-szpakowicz-przestrzen-elementarna/, access: 03.07.2024.

[264] Ł. Wojciechowski, A. Czupkiewicz, *Jan Szpakowicz. Przestrzeń elementarna*...op. cit., p. 64.

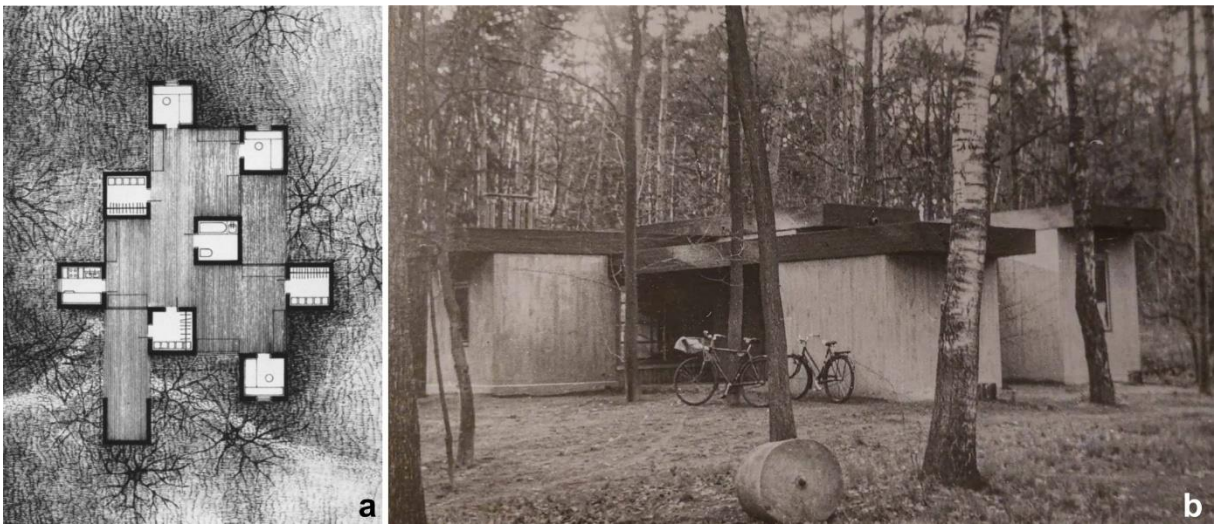

Fig. 32. A schematic drawing of the floor plan of a single-family house in Piaseczno designed by architect Jan Szpakowicz [a]; A photograph from the 1970s of a single-family house in Pruszków designed by architect Jan Szpakowicz, photo by Jan Szpakowicz [b]. Sources: T. P. Szafer, *Nowa Architektura Polska. Diariusz lat 1971-1975* [New Polish Architecture. Diary from 1971-1975], Wydawnictwo Arkady, Warsaw 1979, p. 43 [a]; Ł. Wojciechowski, A. Czupkiewicz, *Jan Szpakowicz. Przestrzeń elementarna* [Jan Szpakowicz. Elementary space], Muzeum Architektury we Wrocławiu, Wrocław 2021, p.73 [b].

A markedly different fate befell the private residence designed by Zofia (1913-2013) and Oskar (1922-2005) Hansen in Szumin, compared to Jan Szpakowicz's single-family house. Although it was virtually unpublished during the PRL era, the house in Szumin gained considerable attention in 2014 when it came under the custodianship of the Museum of Modern Art in Warsaw and was featured in a bilingual publication titled *'The House as an Open Form: The Hansens' Summer Residence in Szumin'*[265]. In 2017, the house was officially established as a branch of the Museum of Modern Art, and the following year, it was added to the Register of Historical Monuments[266]. The uniqueness of the Szumin house lies in its full realization of Hansen's *Open Form* theory. Developed in the 1950s, this theory became a significant concept in architecture and art, advocating for spaces that are flexible and oriented toward the user. Instead of imposing fixed structures or predefined functions, *Open Form* promotes designs that respond to the individual needs, actions, and interactions of occupants, allowing them to shape and personalize their surroundings. In Szumin, the Hansens implemented *Open Form* principles through modular elements and an open layout, fostering fluid movement and multifunctionality. For example, the interiors feature movable partitions and furniture, enabling the family to redefine spaces according to their activities and preferences. The walls lack permanent decoration, and Hansen used simple materials that could be easily modified or replaced, reinforcing the idea that the space was intentionally left 'open' for continuous change[267].

[265] F. Springer, A. Kędziorek, J. Smaga, *Dom jako forma otwarta. Szumin Hansenów / The House as an Open Form. The Hansen's summer residence in Szumin*, Karakter, Kraków 2014.

[266] A full-list of listed buildings in Polish National Register of Monuments can be found on the portal: https://mapy.zabytek.gov.pl/nid/.

[267] F. Springer, A. Kędziorek, J. Smaga, *Dom jako forma otwarta*...op. cit., pp. 25-27.

Fig. 33. Contemporary photograph of the single-family house designed by Zofia and Oskar Hansen in Szumin, now a branch of the Museum of Contemporary Art in Warsaw. Photo by Simone de Iacobis. Source: Website of the Szumin branch of the Museum of Modern Art: https://archiwum.artmuseum.pl/pl/doc/dom-hansenow-w-szuminie, access: 03.07.2024.

The previously discussed houses in Piaseczno (Zalesie Dolne) and Szumin exemplify suburban and rural residences situated in natural settings, without dense surrounding development. In the late 1960s and early 1970s, Kraków architect Wojciech Pietrzyk (1930–2017) designed two exclusive private single-family homes in Tarnów and Kraków, which stand out as remarkable examples of late modernism. The single-family house in Tarnów quickly became recognizable in the city—not only due to its location on one of the main streets but also because of its strikingly modern form. The structure features a partially cantilevered volume supported by steel columns, housing the residential area above a medical office, and it contrasts sharply with the surrounding historical architecture. Designed in 1967 and completed in 1977, this house was published only once during the PRL period, appearing in '*Diary od architecture 1971–75'* by Szafer with a simple elevation drawing. However, over the past decade, its photographs have been published multiple times[268]. The second house, located in Kraków, gained considerably more recognition during the PRL era, with multiple publications by Tadeusz Przemysław Szafer[269]. This residence sits on a southern slope in the villa district of Wola Justowska. The building comprises a composition of several interconnected volumes on different levels, each distinguished by a geometric facade treatment. Additionally, the angled alignment of the side walls visually breaks up the structure, adding a sense of dynamism to the overall form[270]. Wojciech Pietrzyk's house in Kraków, much like the one in Tarnów, is in good technical condition, as their owners have taken care to maintain their integrity and preserve the authenticity of the original finishing materials.

[268] Among others, in the publication '*Tarnów. 1000 lat nowoczesności* [Tarnów: 1000 Years of Modernity]', E. Łączyńska-Widz, D. Radziszewski (eds.), MOCAK, Kraków 2020. In 2024, interest in the building significantly increased following the death of the owner and original investor, as the property was listed for sale.

[269] See: Point 1.2 in this dissertation, Chapter II.

[270] R. Nakonieczny (ed.), *Słynne wille Polski* [The Great Villas of Poland], Foibos, Praha 2013, p. 256.

Fig. 34. Contemporary photograph of a single-family house designed by Wojciech Pietrzyk in Tarnów [a]; Photograph from the 1980s of a single-family house designed by Wojciech Pietrzyk in Kraków [b]. Sources: Website of the Office of Art Exhibitions in Tarnów: https://www.bwa.tarnow.pl/ [a]; T. P. Szafer, *Polish Contemporary Architecture*, Arkady Publishing, Warsaw, 1988, p. 26 [b].

In the late 1970s and early 1980s, several single-family houses were designed and built that have since become recognized examples of their era. In Kraków, Romuald Loegler and Jacek Czekaj designed a house on Ehrenberg Street in 1977, attaching it to an already existing neighboring structure. From the street view, the building appears compact and uniform, with the only variation at the main entrance in the form of a curved wall. However, this impression is deceptive, as the garden side reveals a more complex, multi-element form. Of particular note is the semi-cylindrical glass bay that houses the staircase. This design, creating an impression of "two worlds" depending on the viewing angle, was highlighted in publications in ;*Architektura;* magazine in the late 1970s and in the book from 1981 '*Nowa Architektura Polska* [The new Polish architecture]'[271]. Another example of a house with especially charming architecture—due to its sloped roofs, which marked a change after decades of predominantly flat-roofed buildings—is the semi-detached home designed by Jadwiga Grabowska-Hawrylak to meet the needs of her multigenerational family, located in the villa district of Zacisze in Wrocław. The house is based on two staggered 'L'-shaped layouts, with glazed walls facing a small patio and a terrace opening onto the garden. A defining feature of the design is the dominance of ceramic materials, with clinker bricks used extensively as finishing elements, a motif repeated inside the house, including on the walls of the spiral staircase. A significant material in the design is also larch wood, which serves both a structural role in the roof, with exposed beams, and a decorative role, accentuating the spaces between the windows as a finishing material.[272]. The home's recognition increased significantly after it received the 1984 award for the best architectural work of the year from the Association of Polish Architects (SARP), leading to its frequent publication in popular magazines and journals. In recent years, the house model and original design drawings were displayed at an exhibition '*Patchwork*' in 2016 at the Museum of Architecture in Wrocław, dedicated to the work of Jadwiga Grabowska-Hawrylak.

[271] T. P. Szafer, *Nowa Architektura Polska. Diariusz lat 1976-1980* [New Polish Architecture. Diary from 1976-1980], Wydawnictwo Arkady, Warsaw 1979, p. 72.

[272] E. Przesmycka, *Dom własny Jadwigi Grabowskiej-Hawrylak* [Jadwiga Grabowska-Hawrylak's own house], [in:] R. Nakonieczny (ed.), *Słynne wille Polski* [The Great Villas of Poland], Foibos, Praha 2013, p. 250-252.

Fig. 35. Contemporary photograph of a single-family house on Ehrenberga Street in Kraków designed by Romuald Loegler and Jacek Czekaj [a]; A photograph from the 1980s of the private home of architect Jadwiga Grabowska-Hawrylak in Wrocław [b]. Sources: K. Styrna-Bartkowicz, *Loegler. Synopis*, Wydawnictwo RAM, Kraków 2015, p. 62 [a]; T. P. Szafer, *Polish Contemporary Architecture*, Arkady Publishing, Warsaw, 1988, p. 25 [b].

In the frequently cited publication *'Słynne wille Polski'* [Great Villas of Poland], the chapter dedicated to single-family house architecture from the Polish People's Republic (PRL) period presents two additional examples from the Silesian Voivodeship: a single-family house on Drozdów Street in Katowice designed by Jurand Jarecki[273], and a villa originally designed for General Jerzy Ziętek in Ustroń by Henryk Buszko and Aleksander Franta[274]. The latter building is now commonly known as the House of Creative Work owned by the Association of Polish Architects (SARP), a designation it received following the passing of General Jerzy Ziętek.

These buildings have not been discussed in detail at this point, as they are thoroughly analyzed in Chapter IV: *Detailed Research* of this dissertation, based on the author's extensive documentation and research conducted specifically on these two properties among other examined single-family house projects by these architects.

[273] R. Nakonieczny, *Willa Ireny i Czesława Sierocińskich*, [in:] R. Nakonieczny (ed.), *Słynne wille Polski* [The Great Villas of Poland], Foibos, Praha 2013, p. 258-260.
[274] R. Nakonieczny, *Willa wojewody śląskiego generała Jerzego Ziętka*, [in:] R. Nakonieczny (ed.), *Słynne wille Polski* [The Great Villas of Poland], Foibos, Praha 2013, p. 261-264.

4. Conclusion of the General Research

The conducted General Research part comprised three main components: a review of determinants, architectural trends, and examples covering: single-family house architecture worldwide in the first half of the 20th century; single-family house architecture worldwide in the second half of the 20th century; and the conditions and recognized examples of single-family houses from the period of the Polish People's Republic (PRL). This research took the form of analytical studies based on information derived from previous literature and source research.

The overview of single-family house architecture worldwide in the first half of the 20th century, due to the longest temporal distance—and, consequently, the largest volume of conducted research and available sources—proved to be the most extensive in comparison to the topics of the second half of the 20th century. **However, this period should be regarded as the most significant due to its pioneering nature: modernism was born in this era, bringing with it many architectural and technical innovations that were either applied or further developed in the second half of the century**, some of which continue to influence contemporary architecture. Through the analysis of collected examples, the author identified four groundbreaking spatial concepts that played a key role in shaping 20th-century single-family house architecture: ***Raumplan*** (Adolf Loos); ***The Five Points of Modern Architecture*** (Le Corbusier); **Dismantling of the Box** (e.g., Mies van der Rohe, Frank Lloyd Wright); and **Non-linear Spatial Forms** (e.g., Hans Scharoun, Alvar Aalto).

An analysis of single-family house late-modern architecture worldwide in the second half of the 20th century reveals that, despite differing historical contexts, such as the war damages, **the evolution of single-family house architecture followed broadly similar trajectories in both the United States and Western Europe.** This convergence can be attributed largely to the growing capacity for disseminating new architectural trends across these regions. A second key observation highlights that, among the pioneering spatial concepts introduced in the first half of the 20th century, **the most significant development was seen in Non-linear Spatial Forms, particularly under the influence of the Brutalist style**: this architectural approach emphasized sculptural qualities and additive volumetrics. Additionally, there was a notable growth in the popularity of **bungalow-type houses**, whose origins are linked to the *Case Study Houses* movement in the United States. It can also be observed that this pattern of single-family houses gained appreciation in Western Europe; however, it was not a literal replication of the *Case Study Houses*, but rather a reinterpretation that also incorporated elements of the *International Style*.

The overview of conditions and recognized examples of single-family houses from the era of the Polish People's Republic (PRL) primarily enabled the identification of a comprehensive set of determinants influencing the architectural formation of such residences during this period. Among these, **the most significant appear to be economic policy determinants and their closely related legal determinants.** These factors provided a framework that, on the one hand, defined the circumstances for hiring architects for private design commissions (which had to be completed outside the structures of state design offices) and, on the other hand, set the spatial scale of buildings (through area regulations). Based on the examined examples of single-family houses from Poland, designed through private commissions, **it is notable that this set of imposed limitations did not, in fact, suppress the creative potential of architects.** Rather, one might even hypothesize that, in certain cases, these constraints sparked a heightened creativity among designers who sought to create buildings featuring innovative solutions while ensuring they met the approval requirements set by the authorities for construction and occupancy.

IV. Detailed Research

1. Characteristics of the Silesian Voivodeship area from 1945 to 1989

The Silesian Voivodeship, located in southern Poland, is bordered by the Beskid Mountains to the south and extends into the Silesian Upland. This region has undergone significant political changes due to its strategic industrial and cultural position. Annexed by Prussia in 1742 during the Silesian Wars, Upper Silesia remained under German influence until after World War I, when political tensions arose along the new German-Polish border. After three Silesian Uprisings (1919-1921) and a 1921 plebiscite, eastern parts of Upper Silesia, including Katowice, became part of the Second Polish Republic[275]. Under Polish administration, the region saw economic growth and functionalist architecture promoting national identity, a period halted by the Nazi occupation in 1939. After World War II, resettlement policies transformed Silesia into a predominantly Polish region, ushering in a new era under the Polish People's Republic.

The Silesian Voivodeship's economy in 1945-1989 was characterized by heavy industry, with coal mining, metallurgy, and manufacturing forming the backbone of its economic structure. The region's rich coal deposits were critical to Poland's energy needs, and Silesian industry supplied essential materials to the national economy and contributed significantly to exports. A key figure in the orchestration of Silesia's post-war industrial and economic growth was Jerzy Ziętek. Known for his influential role in the Polish People's Republic, Ziętek initially served as the Chairman of the Presidium of the Provincial National Council in Katowice during the 1950s and subsequently as the Governor of the Silesian Voivodeship[276]. He promoted industrial expansion and modernization efforts, which brought increased employment opportunities and infrastructure improvements to the region. Ziętek also advocated for better living conditions for workers, contributing to the development of housing, healthcare, public service and educational facilities that supported the rapidly growing industrial workforce[277]. In the post-World War II period, the development strategy for the Silesian Voivodeship extended beyond its established industrial foundation. The authorities aimed to create modern research and academic centers that would foster technological advancement and elevate the region's prestige. Among these initiatives were the establishment of Mining Institutes, which focused on pioneering new methods for resource extraction and processing. A pivotal milestone was the founding of the Silesian University of Technology in Gliwice in 1945—a technical university envisioned as one of Poland's leading educational and scientific institutions, dedicated to training engineering professionals essential for the rapid growth of Silesian industry[278]. In addition to the Silesian University of Technology, several other institutions of higher learning were established in the late 1940s and early 1950s to support regional development. The University of Economics in Katowice, founded in 1937 but reestablished and expanded after the war, provided expertise in economics, finance, and management

[275] R. Kaczmarek, *Powstania Śląskie 1919-1920-1921* [Silesian uprisings 1919-1920-1921], Wydawnictwo Literackie, Kraków 2019, pp. 29-43.
[276] D. Kowalik-Dura, B. Niedoba (eds.), *Jerzy Ziętek. Powstaniec. Generał. Wojewoda* [Jerzy Ziętek. Insurgent. General. Governor], Muzeum Śląskie, Katowice 1996, pp. 22-27.
[277] Initiator of many large-scale investments in the region, such as the construction of *Osiedle Tysiąclecia* residential complex in Katowice or a sanatorium and leisure complex in the Zawodzie district of the resort town of Ustroń in Beskid Mountains.
[278] W. Bąba, *Początki Politechniki Śląskiej* [The beginnings of the Silesian University of Technology], Muzeum Miejskie w Gliwicach, Gliwice 2010, p. 9.

crucial for the evolving needs of a post-war economy[279]. Notable among these were the Medical University of Silesia, established in 1948 in Bytom, to address the growing demand for healthcare professionals[280].

The area of the Silesian Voivodeship was the site of several prestigious investments in the post-war period, as the Polish government sought to showcase the region's industrial prowess and modernity. After World War II, the city of Tychy emerged as a prominent example of a planned, modern commuter town in Poland[281]. In response to the rapid industrial growth in Upper Silesia, which attracted a significant influx of workers, it was aimed to establish Tychy as a comfortable and functional model settlement for industrial workers and their families. A second example of post-war development is Jastrzębie-Zdrój, which reflects a significant transformation from a small health resort into a major industrial center within the Silesian region. In the late 1950s and 1960s, national priorities shifted as Poland sought to capitalize on the region's rich coal deposits, prompting a major reorientation of the town's purpose and infrastructure[282]. To support the rapidly expanding coal industry, Jastrzębie-Zdrój underwent substantial urbanization, with large-scale housing developments being constructed to accommodate an influx of workers and their families. Finally, it is essential to mention the ambitious and monumental project for the modernization of Katowice's city center in the late 1950s and early 1960s. This redevelopment aimed to transform the city's core into a symbol of progress, underscoring Katowice's role as the administrative heart of a thriving industrial region.[283].

The development of cities within the Silesian Voivodeship was closely tied to changes in administrative divisions[284]. Under the administrative reform of 1975, the region was reorganized into smaller voivodeships, with Bielsko-Biała and Częstochowa, alongside Katowice, assuming the status of voivodeship capitals from 1975 to 1998. This reclassification had significant implications for the spatial and infrastructural development of these cities, as their elevation to administrative centers attracted increased investment in urban expansion, modernization, and public infrastructure to support their new governmental roles.

In the post-war period from 1945 to 1989, recreational and healthcare resorts in the Silesian Voivodeship, notably at the foothills of the Beskid Mountains in Ustroń, Wisła, and Szczyrk, experienced significant development. Ustroń and Wisła had been recognized spa resorts even before World War II, drawing visitors seeking the health benefits of their natural mineral springs and clean mountain air.

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[279] Until 2010, the university was known as the *Karol Adamiecki Academy of Economics in Katowice*.

[280] Z. S. Herman, A. Sałaniewski (eds.), *40-lecie Śląskiej Akademii Medycznej w służbie człowieka i postępu medycyny 1948-1988* [40th anniversary of the Silesian Medical Academy in the service of man and the progress of medicine 1948-1988], Śląska Akademia Medyczna, Katowice 1988, p. 17.

[281] P. Oczko (ed.), *Tychy – dziedzictwo nowego miasta. Architektura i urbanistyka lat 1955 – 1989* [Tychy - heritage of the new city. Architecture and urban planning 1955 – 1989], Muzeum Miejskie w Tychach, Tychy 2017, pp. 7-8.

[282] J. Lubszczyk, *Od Rybnickiego Zjednoczenia Przemysłu Węglowego do Jastrzębskiej Spółki Węglowej* [*From the Rybnik Coal Industry Union to Jastrzębska Spółka Węglowa*], „Biuletyn Galerii Historii Miasta" 2013, No. 4, Issue 30, pp. 11-14.

[283] A. Borowik, *Nowe Katowice. Forma i ideologia polskiej architektury powojennej na przykładzie Katowic (1945-1980)* [New Katowice: Form and Ideology of Polish Post-War Architecture Exemplified by Katowice (1945–1980)], Neriton, Warsaw 2019, p .

[284] J. Służewski (ed.), *Terenowe organy administracji i rady narodowe po reformie* [Local administrative bodies and national councils after the reform], Wiesza Powszechna, Warsaw 1977, p. 11.

However, beginning in the early 1960s, Ustroń underwent the most extensive expansion, marked by the construction of the Zawodzie spa district[285]. This area became known for its distinctive architectural style, featuring pyramid-shaped sanatorium buildings designed to maximize sunlight exposure and create a striking visual identity[286]. Zawodzie developed into a significant wellness hub, serving not only the entire Silesian Voivodeship but also attracting patients from across Poland, who sought treatment and relaxation in the resort's health facilities. Even today, it continues to draw visitors nationwide, maintaining its reputation as a premier destination for spa and therapeutic services. In contrast, the town of Szczyrk became a center for skiing and winter sports during the Polish People's Republic period. With its favorable mountainous terrain and snowfall, Szczyrk attracted significant investment in sports infrastructure, transforming the town into one of Poland's premier destinations for winter sports enthusiasts[287].

The role of the area of Silesian Voivodeship in the Polish People's Republic (PRL) extended beyond economic contributions to influence social and architectural developments on a national scale. Silesian industrial outputs, encompassing coal, steel, and heavy machinery, provided essential resources that fueled domestic industries and significantly boosted Poland's export capacity. This region's contribution underscored its strategic economic importance, positioning Silesia as a vital industrial and economic hub within the country. As a center of heavy industry and a symbol of socialist labor values, Silesia held significant ideological importance in communist Poland. The government promoted the region as an exemplar of industrial progress, often featuring Silesian workers and industrial landscapes in propaganda that celebrated the virtues of socialism. This ideological framing of the period from 1945 to 1989 reinforced Silesia's position in the national consciousness as a region emblematic of Poland's modernization and resilience.

[285] K. Szkaradnik, D. Koenig, *Z przeszłości i współczesności Ustronia* [From Ustron's past and present], Muzeum Ustrońskie, Ustroń 2011, p. 52.
[286] T. Barucki, *Zielone Konie / Green Horses. Henryk Buszko, Aleksander Franta, Jerzy Gotttfried*, Salix Alba, Warszawa 2015, pp. 52-53.
[287] M. Barański, *Beskid Śląski. Przewodnik* [Beskid Śląski. Guide], Oficyna Wydawnicza Rewasz, Pruszków 2007, pp. 6-9.

2. Architects and the context of professional activity in the area of the Silesian Voivodeship

Outlining a concise overview of the context that shaped the architectural community in the Silesian Voivodeship during the Polish People's Republic is challenging due to the region's complex history. To address this, the section is organized into several subsections that structure information on the educational background in architecture, the organization of architects' professional activities, and a synthesis of the contributions made by key figures instrumental in the region's architectural development.

2.1. Architectural education

Research conducted on the biographies of architects who were professionally active and made significant contributions to the Silesian Voivodeship revealed that their architectural education backgrounds can be divided into two main categories.

The first group includes architects who received their training before World War II, when Poland's territorial boundaries differed. A leading educational center during the Second Polish Republic was the Faculty of Architecture at the Lwów Polytechnic. Graduates of this institution, such as Tadeusz Łobos, Leon Dietz d'Arma, Zbigniew Rzepecki, Włodzimierz Buć, Zygmunt Majerski, Julian Duchowicz, and Tadeusz Teodorowicz-Todorowski, were crucial in shaping both the interwar and post-war architectural landscapes of the region.

The second group consists of architects who completed their architectural education during the era of the Polish People's Republic (PRL) and began their professional work after the 1950s. Many of these architects active in the Silesian Voivodeship attended faculties in cities like Gdańsk and Wrocław. However, the majority who contributed most significantly to Silesia's architectural landscape were graduates of the Faculty of Architecture at the AGH University of Science and Technology, which in 1954 became part of the newly established Cracow University of Technology. Notable graduates of the Kraków Faculty of Architecture, representing this generation of architects active in post-war Upper Silesia, include Henryk Buszko, Aleksander Franta, Jerzy Gottfried, Jurand Jarecki, Mieczysław Król, and Stanisław Kwaśniewicz. This group's work shaped the modernist architectural style in the region, with designs that balanced functionality and modern aesthetics to meet the social and urban needs of the time. Their projects, ranging from residential complexes to public spaces, contributed to the unique post-war architectural identity of Upper Silesia.

The teaching of architecture in the Silesian Voivodeship began only in 1949 when the newly established Silesian University of Technology (founded in 1945) opened an Architecture Division within the Faculty of Civil Engineering[288]. This division operated until 1954. In 1962, those architectural studies resumed within the Faculty of Civil Engineering and Architecture, and in 1969, an Institute of Architecture and Urban Planning was established within this faculty. Full independence for architectural education was achieved in 1977, with a dedicated building assigned within the Silesian University of Technology campus in Gliwice. The history of architectural teaching at the university is closely linked to prominent figures who were graduates of the Lviv Polytechnic's Faculty of Architecture. Notably, Włodzimierz Buć, Julian Duchowicz (who led the Architecture Division within the Faculty of

[288] K. Locher-Książek (ed.), *Almanac of 30. anniversary : lecturers of the Faculty of Architecture of the Silesian University of Technology*, Politechnika Śląska, Gliwice 2008.

Civil Engineering from 1952 to 1954), Tadeusz Teodorowicz-Todorowski (who organized and directed the Architecture Division within the Faculty of Civil Engineering and Architecture from 1962 to 1966), and Zygmunt Majerski (the first dean of the independent Faculty of Architecture starting in 1977) were instrumental in shaping architectural education at the university. After 1977, among the academic teachers at the Faculty of Architecture were Henryk Buszko (in years 1970-1979), Aleksander Franta (in years 1970-1978), Jurand Jarecki (in years 1978-1984), and Mieczysław Król.

Analyzing the post-World War II development of architectural education in the Silesian Voivodeship reveals a generational continuum. Graduates of the pre-war Lviv Polytechnic and later generations educated in Kraków played a crucial role in shaping the next cohort of architects working in the region. This generational succession illustrates a legacy where both the generation of pre-war graduates from Lviv Polytechnic and the subsequent generation, educated in Kraków, went on to teach the next generations of architects working in the region.

2.2. Organization of professional activity

Although single-family home projects commissioned individually from architects were not created within state design offices, a brief overview of the primary regional institutions around which the professional activities of architects were organized provides essential context. Below, the most significant institutions active in the region are discussed in summary, highlighting the organizational framework in which these architects operated professionally.

The post-war industrial and urban reconstruction of Poland, especially in the Silesian Voivodeship, was led by a network of state design offices focused on major infrastructure, industrial, and residential projects. In 1948, national-level state design institutions began to emerge, including the Central Office of Studies and Industrial Construction Designs (*Centralne Biuro Studiów i Projektów Budownictwa Przemysłowego*) and the Central Office of Architectural and Construction Designs (*Centralne Biuro Projektów Architektonicznych i Budowlanych*)[289]. These transformations led to the establishment of a regional network of '*Miastoprojekt*' offices, starting with '*Miastoprojekt-Katowice'* in 1949, which developed from the Katowice branch of the Central Office of Architectural and Construction Designs[290]. '*Miastoprojekt*' offices were organized into specialized thematic studios, offering a wide range of design services for residential, educational, cultural, and service buildings, though they generally excluded industrial projects[291]. Over the following years, additional branches were established within the Silesian Voivodeship, including '*Miastoprojekt-Nowe Tychy'* in 1955 and the Gliwice branch in 1957, which separated from the Katowice office. Gliwice was the location where another state design office, '*Inwestprojekt'*, began operations in 1955. This office specialized in residential and service infrastructure, focusing specifically on complementing housing estates with essential facilities[292].

A separate group of state design offices catered to the region's industrial needs, particularly in mining and heavy industry. Key offices included the Central Office of Mining Studies and Projects (*Główne Biuro Studiów i Projektów Górniczych*) in Gliwice, as well as Gliwice's '*Biprohut'* (*Biuro*

[289] P. Marciniak, *Architektura i urbanistyka Poznania w latach 1945-1989 na tle doświadczeń Europejskich* [Architecture and urban planning of Poznan in 1945-1989 against the background of the European experience], Wydawnictwo Politechniki Poznańskiej, Poznań 2009, p. 16.
[290] J. Gottfried (ed.), *Miastoprojekt Katowice 1948-1988*, Zakładowa Agencja Prasowa, Katowice 1988, p. 10.
[291] J. Gottfried (ed.), *Miastoprojekt Katowice*...op. cit, p. 12-15.
[292] R. Jurkowski,

Projektów Przemysłu Hutniczego 'Biprohut') and '*Energoprojekt'* (*Biuro Studiów i Projektów Energetycznych*). Additionally, Katowice was home to '*Bipromet'* (*Biuro Projektów Przemysłu Metali Nieżelaznych*), specializing in non-ferrous metal industries. It is worth focusing on the interesting case of one design office: the General Construction Design Studio (*Pracownia Projektów Budownictwa Ogólnego*, PPBO) in Katowice, led by Henryk Buszko and Aleksander Franta from 1959. This office was unique in the PRL period due to its dual legal and ownership structure. Although PPBO operated within the framework of a state-run design office, it enjoyed a considerable degree of autonomy from centralized control. This semi-independent status allowed PPBO greater creative freedom, enabling it to develop architectural projects that were more innovative and responsive to local needs than was typical under the heavily centralized, bureaucratic constraints of most state design institutions at the time. The architects whose architectural contributions in single-family home design were analyzed in this dissertation were largely affiliated professionally with four principal offices: *'Miastoprojekt'* (with branches in Katowice, Nowe Tychy, and Gliwice), '*Inwestprojekt*', the Provincial Design Office in Katowice (*Wojewódzkie Biuro Planowania*), and the General Construction Design Studio [*Pracownia Projektów Budownictwa Ogólnego*, PPBO].

In the context of practicing architecture, it is essential to recognize the contributions of another type of institution, one fundamentally different from state design offices: the Association of Polish Architects (*Stowarzyszenie Architektów Polskich*, SARP). The branches of SARP in Katowice and Bielsko-Biała significantly influenced architectural development in the Silesian Voivodeship during the Polish People's Republic (PRL) period. These branches provided a forum for architectural discourse, professional development, and networking, enabling architects to explore and apply modernist principles. Through exhibitions, lectures, and design competitions, SARP fostered a strong regional architectural identity.

2.3. Investors

Based on the author's field research, study visits, and examination of source materials, it can be concluded that the primary investors commissioning single-family houses individually during the PRL period were predominantly members of the educated elite. This group included professionals such as physicists, scientists, and engineers—individuals in fields that required advanced education and who often held a strong appreciation for personal expression and privacy, rare luxuries within the standardized housing solutions typical of the era. In addition to these professionals, others occupying high-ranking managerial and executive roles, especially within the industrial and technological sectors, also commissioned unique residential designs. Their professional standing often afforded them the financial resources and administrative permissions necessary to construct personalized homes. A noteworthy portion of these investors also included members of the political elite and party officials, whose influence often facilitated access to building materials, prime locations, and necessary approvals. Among this select group were also architects, artists (including composers, painters, and sculptors), who commissioned single-family homes tailored to their individual needs. In these cases, the houses featured additional spaces in the form of private studios and workshops[293].

[293] These possibilities, however, were limited. Single-family houses with additional rooms, such as doctor's offices or studios, were not permitted to exceed a total usable floor area of 140 m^2 under PRL law.

2.4. Key representatives of the regional architectural scene

Due to the substantial number of professionals within the architectural scene in the Silesian Voivodeship, any attempt at characterizing it presents a complex challenge. This scene included many talented designers who, through their professional activities, achieved varying degrees of recognition. This recognition has also proven to be dynamic: while some architects have been unjustly forgotten after several decades, others have gained appreciation only years after their design careers concluded. The group of architects presented in this section represents a selection based on two main criteria: the scope of architectural work they left in the region and their level of public recognition. Insights into the latter criterion were shaped by an analysis of current knowledge regarding the architectural heritage of the latter half of the 20th century and its creators in the Silesian Voivodeship. Following a literature review and an examination of past outreach initiatives[294]—such as jubilee celebrations, lectures, and events centered around new biographic publications—a list of five architects was formulated: Henryk Buszko, Aleksander Franta, Jurand Jarecki, Jerzy Gottfried, Mieczysław Król, and Stanisław Kwaśniewicz. This group represents a selection of creators who have left a legacy of distinctive buildings within the Silesian region. From the perspective of this study's objectives, it should be noted that their contributions to the fields of urban planning, collective housing, and public utility structures are well-documented and thoroughly described[295]. This contrasts with their work in the area of private single-family houses, which has been investigated in the research presented within this dissertation.

In the following review, the first two architects, Henryk Buszko and Aleksander Franta, are discussed together, as they were professional partners throughout their careers, collaboratively designing all of their buildings. Although they initially worked as a trio with Jerzy Gottfried until 1958, their professional paths diverged relatively early in their careers, leading to Jerzy Gottfried being presented as a separate case.

a. **Henryk Buszko** (1924, Lviv – 2015, Katowice)
b. **Aleksander Franta** (1925, Kraków – 2019, Chorzów)

Henryk Buszko and Aleksander Franta graduated in 1949 from the Faculty of Architecture at the AGH University of Science and Technology in Kraków. From 1949 to 1958, Henryk Buszko worked alongside Aleksander Franta and Jerzy Gottfried in the '*Miastoprojekt-Katowice*' office. In 1958, he and Franta left '*Miastoprojekt*' to establish an independent General Construction Design Studio (*Pracownia Projektów Budownictwa Ogólnego*, PPBO).

By 1948, working in a team with Jerzy Gottfried, they designed several recognizable buildings in the area of the Silesian Voivodeship, including: the Regional Trade Union Council Building in Katowice (1950-1955), Cultural Centers in Ozimek and Świętochłowice (1955-1958), the Theatre in Rybnik (1956-1964), and the '*Transportowiec*' resort hotel in Bielsko-Biała (1956-1962). Later, within their independent PPBO studio, they completed a number of significant projects, such as the Tysiąclecia

[294] Examples of such initiatives include the *Architect Elders Jubilee Series*, organized from 2014 to 2018 as part of the '*Creators of Silesian Architecture: Portraits*' project at the Silesian Library in Katowice (H. Buszko, A. Franta, J. Gottfried, J. Jarecki). Also the books published within this project, accompanying these jubilees, played a significant role in shaping awareness of the architects behind the most important examples of architectural heritage in the region.

[295] This includes works by Tadeusz Barucki, Magdalena Żmudzińska-Nowak, Aneta Borowik, Ryszard Nakonieczny, Anna Syska, and others.

Housing Estate in Katowice (1958-1979), which was later expanded to include distinctive high-rise residential buildings famously known as the '*Corns*' (1979-1992); the '*Górnik*' Sanatorium in Szczawnica (1959-1964); the Ustroń-Zawodzie mountain resort and health district, featuring the monumental '*Równica*' Sanatorium and a series of pyramid-shaped hotel buildings (1959-1986); the Roździeńskiego Housing Estate in Katowice, with high-rise buildings popularly called the '*Stars*' due to their star-shaped layout (1967-1979), along with the '*Reta*' residential complex in Mikołów (1974-1980), known for its terraced architecture. Their range of work also includes religious architecture, notably a church at the Tysiąclecia Estate in Katowice (1978-1992).

c. Jerzy Gottfried (1922, Lviv – 2017, Katowice)

Jerzy Gottfried, alongside Henryk Buszko and Aleksander Franta, graduated in 1949 from the Faculty of Architecture at the AGH University of Science and Technology in Kraków. From 1949 to 1990, he worked at the *'Miastoprojekt-Katowice'* office, where he also served as a studio director and chief designer from 1949 onward.

The projects developed together with Henryk Buszko and Aleksander Franta have been discussed in the previous section dedicated to both architects. Among the most recognizable buildings designed by Jerzy Gottfried after 1949 are the Administrative Building of the Regional Directorate of the Polish State Railways in Katowice 'DOKP' (1961-1972, demolished in 2015), the Pavilions of the Center for Technological Advancement in Silesian Park (1961-1967), the '*Kapelusz*' [the *'Hut'*] Exhibition Hall in Silesian Park (1966), and the Electrical Engineering Faculty Building at the Częstochowa University of Technology (1967-1970).

d. Jurand Jarecki (1931, Kraków – 2024, Katowice)

Jurand Jarecki graduated in 1957 from the Faculty of Architecture at the Cracow University of Technology[296]. From 1957 to 1990, he worked at the *'Miastoprojekt-Katowice'* office, and from 1990 onward, he ran a private design studio, *'Architectural Implementation Atelier ARAR'*, together with Stanisław Kwaśniewicz and Marek Gierlotka. An interesting aspect of Jarecki's career is his international experience: in 1961, he completed a one-year professional internship in France at the office of George Candilis, collaborating with Pierre Vago, Pierre Dufau, and Romuald Lopez. Later, in 1979, he was employed by the design company *'ECOTEC-Oran'* in Algiers.

Since 1957, Jurand Jarecki has designed numerous notable buildings, such as the *'Zenit'* Department Store in Katowice, designed together with Mieczysław Król (1959-1962); the *'Kosmos'* cinema building, created in collaboration with Stanisław Kwaśniewicz (1957-1962); the *Paderewskiego Housing Estate* in Katowice, designed jointly with Stanisław Kwaśniewicz and Ryszard Ćwikliński (1965-1978); and the *'Skarbek' Department Store*, known for its distinctive aluminum-scaled facade by the Katowice market square (1972-1975). Notably, Jurand Jarecki stood out in the architectural scene of Silesia for being one of the few designers in Poland qualified to design ski jumping hills. From 1965 onward, he designed ski jump profiles in Zakopane, Szczyrk, Wisła, Karpacz, and Bielsko-Biała. It is also worth mentioning one significant project completed after 1989: the building of the Silesian Library in Katowice, designed in collaboration with Stanisław Kwaśniewicz and Marek Gierlotka (1989-1997).

[296] The Faculty of Architecture at the Cracow University of Technology was established in 1954, evolving from the Faculty of Architecture at the AGH University of Science and Technology in Kraków.

e. Mieczysław Król (1928, Nowy Targ – 2013, Kraków)

Mieczysław Król graduated in 1954 from the Faculty of Architecture at the AGH University of Science and Technology in Kraków. From 1954, he worked at the *'Miastoprojekt-Katowice'* office. He was also affiliated with the Silesian University of Technology in Gliwice, where he worked as an academic teacher and scholar starting in 1963. In 1969, he earned his PhD, became an associate professor in 1977, and was appointed full professor in 1991.

Despite dedicating a significant part of his career to didactic and scholar activities, Mieczysław Król has an impressive portfolio of notable architectural projects in the region. These include the *'Zenit'* Department Store in Katowice, located at the market square (1959-1962); large-scale urban planning projects for the Koszutka residential district in Katowice (1956) and the mixed residential-commercial complex *'Katowice Center-West'* (1962); innovative high-rise residential buildings in the Koszutka district and similar structures later constructed in other Katowice districts, as well as in Sosnowiec, Dąbrowa Górnicza, Mysłowice, and Tychy; the '*Superjednostka'* residential building in Katowice; and remarkable late modernist church buildings, including one in Chorzów, designed with Jerzy Winnicki (1956-1963), in Łagiewniki Wielkie (1968-1969), and in Jastrzębie-Zdrój, created with Kazimierz Sołtykowski (1974).

f. Stanisław Kwaśniewicz (1930, Kraków – 2006, Katowice)

Stanisław Kwaśniewicz graduated in 1954 from the Faculty of Architecture at the AGH University of Science and Technology in Kraków. After completing his studies, he began working at *'Miastoprojekt-Katowice'*, where he was employed from 1954 to 1991.

The extensive body of work by Stanisław Kwaśniewicz can be divided into projects designed collaboratively with Jurand Jarecki and in partnership with Marek Gierlotka (including previously mentioned buildings such as the *'Kosmos'* cinema and the Paderewskiego Housing Estate in Katowice), as well as those for which he was the sole chief designer. This latter group includes the buildings within the *'Separator'* service complex along Korfanty Avenue in Katowice (1959-1962) and the exhibition pavilion of the Bureau of Artistic Exhibitions (1964-1966); the multi-story brutalist building for the Silesian Institute of Science in Katowice (1968-1971, demolished in 2022)[297]; and the brutalist church near the Paderewskiego Housing Estate in Katowice. Across the Silesian Voivodeship, Kwaśniewicz's architectural legacy is marked by his 16 late-modernist churches, designed from 1966 onward, in cities such as Drogomyśl, Wrzosowa, Lubojna, Bystra, Ruda Śląska, Zaborze, Pszczyna, Sosnowiec, Świerklaniec, and Częstochowa.

[297] In 2022, a team from the Institute of Architectural Documentation at the Silesian Library in Katowice and the Faculty of Architecture at Silesian University of Technology, together with the author of this dissertation, collected samples of finishing materials from the building. The entire structure was digitally documented shortly before its demolition.

3. Custom-designed single-family houses in the area of the Silesian Voivodeship

The group of architects characterized in Section 2.3, selected for their extensive reach and multi-dimensional architectural achievements reflected in a diverse range of completed projects across the Silesian Voivodeship, as well as the recognizability of their public and large-scale multifamily buildings, was adopted in this dissertation as the primary research sample for identifying a foundational sample of private single-family houses. Based on this group, an initial quantitative analysis was conducted to evaluate the number of single-family houses they designed, as discussed in Section 3.1.

However, as described in point 6, Chapter I, throughout the entirety of field research and study visits, the author observed buildings outside the core sample of buildings to be surveyed[298], noting their locations and later returning to identify their designers and examine these structures in terms of architectural qualities, value, and state of preservation. Thorough reconnaissance was also conducted in areas with a high likelihood of finding such examples of single-family houses, both through on-site walks along nearby streets within neighborhoods and by using Google Maps 3D and Google Street View tools. The resulting final sample of buildings to be surveyed is discussed in Section 3.2.

3.1. Preliminary sample of surveyed buildings

The documentation and archival materials of the architectural legacy of Henryk Buszko and Aleksander Franta were transferred to the Archive of the Institute of Architectural Documentation at the Silesian Library in Katowice upon the closure of the PPBO studio following Henryk Buszko's death in 2014. These collections include design concepts and documentation for six single-family houses in Katowice and Ustroń. An additional source of information was an interview conducted by the author of this dissertation in 2019 with Aleksander Franta, who provided further locational insights. During the field research conducted throughout the study, the author also identified an additional single-family house located in Katowice. Thanks to the current owner's cooperation, the author was able to photographically document this residence. After cross-referencing with archival records, research into the architectural work of Henryk Buszko and Aleksander Franta resulted in the identification of a total of **6 houses built in Katowice or Ustroń and 1 unbuilt house in Ustroń**.

A valuable opportunity to gather primary information on single-family houses designed by Jerzy Gottfried came from a series of interviews that the author of this dissertation conducted with the architect at his own house between late 2016 and early 2017. This provided not only an opportunity to document Gottfried's own house but also to obtain various paper materials. Although Jerzy Gottfried did not have the design documentation for his home in his personal archive, he provided the plans for another single-family house that remained unbuilt in Anin, near Warsaw[299]. The design documentation for Gottfried's own home in Katowice was found in the Municipal Archive of the Katowice City Hall, although it was incomplete. This research ultimately resulted in the identification of **1 house built in Katowice and 1 unbuilt house in Anin.**

[298] By Henryk Buszko, Aleksander Franta, Jerzy Gottfried, Jurand Jarecki, Mieczysław Król and Stanisław Kwaśniewicz.

[299] This documentation was later transferred by Jerzy Gottfried to the Archive of the Institute of Architectural Documentation at the Silesian Library in Katowice.

A similar process occurred with Jurand Jarecki: a wealth of valuable information was gathered through personal interviews. Together with the author of this dissertation, they explored Jarecki's personal archive, where they uncovered projects for 4 houses located in the Silesian Voivodeship—in Katowice and Szczyrk—as well as a collection of unorganized conceptual drawings for two houses in Oran, Algeria[300]. The author was able to visit all of the houses within the voivodeship and additionally identified another house in Sosnowiec designed by Jarecki, with its documentation provided by the current owners. This research ultimately resulted in the identification of **5 built houses in Katowice, Sosnowiec, and Szczyrk, as well as 2 unbuilt houses in Oran, Algeria.**

The situation was different regarding the acquisition of sources on Stanisław Kwaśniewicz's design work: the author of this dissertation did not have the opportunity to speak directly with the architect or his relatives. The design drawings for five single-family houses were identified in a collection transferred to the Archive of the Institute of Architectural Documentation at the Silesian Library in Katowice, after being discovered in the library's basement. Through field research and conversations with residents in the single-family housing estates where these houses were believed to be located, it was ultimately determined that **2 of the houses were built in Katowice** (one of which was demolished) **and 3 remained unbuilt in Katowice and Brzyszczki.**

It was also not possible to conduct a personal interview with architect Mieczysław Król. However, the author of this dissertation was able to contact the architect's son, who agreed to allow a search of the family archive for single-family house designs. This search uncovered 6 sets of architectural drawings for houses planned in various locations across the Silesian and Lesser Poland Voivodeships. Among these 6 projects, two were confirmed as built: houses in Wisła and Brenna (the latter was likely demolished in the 1990s). Additionally, field research revealed a single-family house with an attached sculpture studio in Mikołów[301]. Unfortunately, the current owners did not permit a full inspection of the building, allowing only for photographic documentation from the street. In summary, this research ultimately led to the identification of **3 built houses in Wisła, Mikołów, and Brenna** (one in Brenna likely demolished), **and 4 unbuilt houses in various Beskid locations within the Silesian and Lesser Poland Voivodeships.**

3.2. Final sample of surveyed buildings

As a result of extensive field research and interviews with responders, including residents of single-family home districts in various cities, followed by outreach to architects or their relatives when possible, a group of 12 additional architects was identified. It is worth emphasizing that this group includes both architects who have gained considerable recognition at the regional and national levels, as well as those who are lesser-known or even entirely forgotten. The individual architects are listed in alphabetical order: Ewa (1929–) and Marek (1930–2002) Dziekońscy, Ludwik Herok (1930–2019), Wiktor Lipowczan, Stanisław Niemczyk (1943–2019), Wojciech Pietrzyk (1930–2017), Krystian Seibert (1930–2015), Marian Stańco (1928–1983), Zbigniew Weber (1928–1992), Jerzy Witeczek (1941–), and Janusz (1933–2015) and Bożena Włodarczyk (1935–).

[300] This documentation was later transferred by Jurand Jarecki to the Archive of the Institute of Architectural Documentation at the Silesian Library in Katowice.
[301] This was a house built by the renowned sculptor Jerzy Egon Kwiatkowski.

By adding this group of 12 architects to the initial selection of 6, **a total representative group of 18 architects was obtained**. This complete list translated into the final sample of single-family houses examined during field research, **totaling 92 properties** in the Silesian Voivodeship and an additional group of several properties outside the region, which were not visited in the course of field research.

4. Location of completed buildings – classification based on settlement units

The field research conducted on all collected examples of private single-family houses within the Silesian Voivodeship allowed for the identification of two main types of house locations: cities and recreation areas. Additionally, within each type, specific cases of spatial relationships between the houses and their spatial context were noted. The analysis conducted at this point aims to determine whether there is a relationship reflected in the architecture of single-family houses based on the type of location: urban or recreation area.

4.1. Cities

The first type consists of houses located in a strictly urban context. These buildings are characterized by their designers' efforts to integrate their forms into both the surrounding structures and the strict planning guidelines, which specified detailed parameters for the buildings and their positioning relative to plot boundaries.

The first spatial case within cities is the infill development within dense, historic downtown areas featuring structures such as villas or tenement houses (for example, the house at Kilińskiego Street 48 in Katowice, designed by Wiktor Lipowczan). Architects were required to adhere to the established building line; in most cases, newly designed single-family houses needed to be set back from the facades of neighboring historic buildings.

The second case concerns the development of individual plots within single-family housing complex (for instance, the house at Kukułek Street 48, designed by Jurand Jarecki). Many of these villa enclave complexes imposed strict conditions that the designers of individual houses had to respect, e.g. maintaining a 5-meter green buffer zone along sidewalks, or arranging buildings in an alternating layout along the same row to create a sense of greater distance between the windows of adjacent buildings[302].

[302] Based on the record of the Katowice city planner's guidelines from 1965 found in the design documentation for Wiktor Lipowczan's house at Kilińskiego Street 48 in Katowice.

Fig. 36. Part of the spatial development plan of Katowice showing the single-family housing complex of the Ptasie Osiedle [Ptasie Estate], 1960 [a]; Drawing of the layout regulation plan for single-family houses in Ptasie Osiedle [Ptasie Estste], Katowice, in a study outline, 1960 [b]. Source: State Archive in Katowice, reference number 12/554/33 [a, b].

4.2. Recreation and healthcare resorts

The second type concerns single-family houses designed within popular recreation and healthcare resorts, such as Wisła, Ustroń, and Szczyrk. During the era of the Polish People's Republic (PRL), these towns were typically characterized by a clear urban structure concept. Property owners in prominent areas of these resorts were required to submit single-family house designs for approval, ensuring that each building fully aligned with the urban composition in terms of building proportions and form. An example of this is the single-family house designed by Krystian Seibert in the center of the Wisła resort, located on Górnośląska Street. According to the homeowner, a condition for obtaining approval was that the house's spatial design had to explicitly reference the hotel buildings being constructed on the hillside above the building plot.

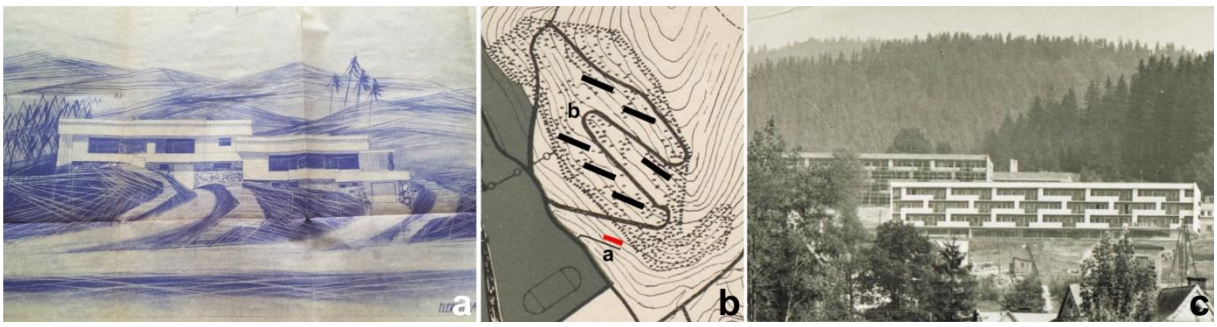

Fig. 37. Elevation drawing of a house designed by Krystian Seibert in Wisła resort , 1958 [a]; Site plan of part of the Wisła resort indicating the compositional coherence of the hotel buildings (marked in black, letter b) with the house designed by Krystian Seibert (marked in red, letter a) [b]; 1960s photograph showing the same slope with hotel buildings in Wisła [c]. Sources: Private archive of the homeowner [a, b]; Archives of the Institute of Architectural Documentation, Silesian Library in Katowice.

The research also revealed contrasting cases: single-family houses that are not connected to the resort complexes. These houses serve as standalone focal points and do not relate spatially in terms of form or proportion to the surrounding buildings, particularly when the neighboring structures are

chaotic and unorganized. An example of such a house is the one designed by Ludwik Herok on Brzozowa Street in Wisła-Jawornik.

Fig. 38. The single-family house in Wisła – Jawornik, designed by Ludwik Herok (in the centre of the photograph; background building), serves as a spatial focal point within the sparse and chaotic architectural landscape of the hillside. Photograph taken by the Author.

5. Architecture of the surveyed buildings

This section presents the comprehensive research findings on the architecture of single-family houses examined within the Silesian Voivodeship. Section 5.1 introduces the most comprehensive classification adopted in this dissertation: a classification based on the spatial configuration of entire buildings. This is followed by classifications according to architectural composition of building forms (Section 5.2), functional assumptions (Section 5.3), their spatial layout (Section 5.4), an analysis of single-family house interior designs (Section 5.5), and, finally, an overview of the finishing materials used (Section 5.6).

5.1. Spatial classification

The analysis conducted in Section 4, which classified houses based on their location in either urban settings or recreational areas, served as the basis for exploring the potential primary classification for this study—namely, classification by location. Consequently, it was decided to adopt **spatial classification** as the primary framework for classifying single-family houses constructed during this period. This decision was driven by preliminary observation of differences and distinctive features, which allowed the buildings to be grouped into several identifiable types.

On the basis of an analysis of almost 100 single-family houses designed by 18 selected architects (6 in the first selection and 12 in the supplementary selection, which was described in Section 3), it was possible to make clear spatial typology of the surveyed buildings.

The spatial classification of the surveyed single-family houses in this research was developed based on an analysis of the spatial relationships among different types of building volumes within the houses. A key aspect here is the distinction derived from PRL-era legislation: *non-residential space* and *residential space*. This distinction is rooted in the interpretation of building regulations regarding room height. In summary, all rooms with a clear height of 220 cm or less were not considered as usable space for daily living and, therefore, were not classified as residential space. Conversely, all rooms with a height exceeding 220 cm were regarded as a *residential storey*[303].

The analysis of these spatial relationships facilitated the identification of **5 distinct spatial typologies among private single-family houses from the PRL (Polish People's Republic) period:** *Single-storey (bungalow) house*; *House with an elevated residential storey; Split-level house*; *House with multiple residential stories*; and *House with a mixed spatial structure*.

Each of these types, identified during the research process, is characterized in detail below. For the purposes of this dissertation, **a selection of 30 representative buildings** from among all those analyzed was made. These selected examples are described and presented in chronological order based on their year of design, forming groups of buildings assigned to each of the five typologies. The identifier for each described single-family house consists of its address, followed by the names of the designers and the year of the project's development.

[303] Circular No. 15 of the Minister of Municipal Economy and the Chairman of the Committee for Urban Planning and Architecture of April 26, 1958, on *Calculating the Usable Area of Residential Units Constructed as Part of Housing Development Financed by Private Funds*, Monitor Polski (Official Gazette of the Republic of Poland), 1958, No. 39, item 229.

a. Single-storey houses (bungalow house)

This type of building is defined as consisting of a single residential storey, directly accessible from ground level, with no additional levels dedicated to residential use above it. In this typology, houses with basements are also included, provided they meet the key criterion of the main entrance being located at or near ground level. Single-storey houses are typically characterized by their horizontal spatial layout, which often results in efficient utilization of the plot. The presence of a basement, where applicable, serves primarily as a functional extension for storage, technical equipment, or auxiliary spaces rather than living areas. The spatial organization of such houses is often focused on simplicity, with clearly delineated zones, arranged on a single plane.

I. ***4 Czyżyków Street, Katowice*** *(Henryk Buszko, Aleksander Franta and Jerzy Gottfried, 1957)*

The corner building plot, bounded by Czyżyków and Jemiołuszek Streets, is located within the Ptasie Osiedle in the Brynów district of Katowice. Designed in 1957 by Henryk Buszko and Aleksander Franta, the semi-detached house was originally intended to serve as a residence for the families of both architects. However, ultimately, only the Buszko family occupied the eastern segment of the building. The project documentation also lists Jerzy Gottfried as a collaborating architect. At the time of its design and construction, completed in 1960, this house was among the first to be built based on a custom-designed project within the single-family residential enclave in Katowice, located east of Kościuszki Street and known as Ptasie Osiedle. The segment of the house belonging to Henryk Buszko was occupied by him until 2015, after which it has remained unused. In 2024, construction work was carried out on the building by its new owner[304].

The house was designed as one segment of a semi-detached structure, with all residential rooms situated on the ground floor. Its living area amounts to 106 m², while the total usable area is 131 m². The segment features a visually compact form, enhanced by a dynamic combination of roofline treatments. The building is topped with a butterfly roof and a clerestory roof, contributing to a design solution that incorporates natural illumination. This is achieved through upper skylight windows located in the slanted wall between adjacent roof planes, providing light to the corridor below. The functional layout of the house organizes daytime and nighttime zones in a linear arrangement. An additional feature is the 25 m² architect's studio, which adjoins a private, sheltered patio. The four bedrooms are arranged in sequence and connected enfilade-style, though each has an independent entrance from the corridor. Between the row of bedrooms and the architect's studio lies a spacious living room measuring 26 m². This central space is well-lit through a large glazed window facing south, as well as a narrow window oriented toward the private inner patio. All usable rooms have a ceiling height of 250 cm, ensuring a sense of spatial proportion and comfort.

[304] A conversation with the current owner of the house revealed plans to repurpose the former residence of architect Henryk Buszko into a commercial space accommodating a bicycle rental service.

Fig. 39. House designed by Henryk Buszko and Aleksander Franta at 4 Czyżyków Street, Katowice: The project documentation, 1957 [a-b]; photographs of the house from 1959 [c-d]; the view from the south and southeast in 2015 [e-f]; the view from the north in 2024 [g]; the architect's studio in 2024 [h]. Sources: the Building Archive of the City of Katowice [a-b], the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [c-d], photographs taken by the Author [e-h].

II. ***11 Słowików Street, Katowice*** *(Jerzy Gottfried, 1957)*

Located within the same Ptasie Osiedle in Brynów district of the city of Katowice as Henryk Buszko's own house (No. I.), while featuring a similar spatial layout to the aforementioned, is not a semi-detached structure but a freestanding building. The plot on which it was constructed borders Słowików Street on its southern side. Given this configuration, the basic solution would have been to position the pathway and driveway along the southern edge of the plot. However, architect Jerzy Gottfried ensured that the entire southern portion of the plot was preserved exclusively as an uninterrupted garden, free from vehicular access[305]. To achieve this, he arranged for the property's entrance to be located on the western side, along Sikorek Street, using a narrow private access lane situated between the parcels of existing neighboring houses. This layout was facilitated by the placement of the garage, allowing a direct alignment with the gate. The house was designed in 1957 (documents also reference the collaboration of architects Henryk Buszko and Aleksander Franta on the project) and was occupied since 1964, till 2017 following Gottfried's death[306].

The spatial layout of the house is similar to that of Henryk Buszko's personal residence, as it represents a significantly adapted version of the latter. The gable roof over the main section of the house is oriented with its ridge perpendicular to the alignment of Słowików Street. A smaller section adjoins the main solid of the house, and the slope of its roof, combined with the slope over the living room area, forms a butterfly roof. The most striking element distinguishing Jerzy Gottfried's from Henryk Buszko's houses is the angular deviation of the external wall of the living room in the floor plan. This design causes the living room to narrow toward the wide glazed window framing a view of the garden to the south, creating a perspective-based optical illusion that visually elongates the space. The second difference concerns the location of the architect's studio, which was situated within the sequence of bedrooms and opened onto the living room. The studio also features an independent passage connecting it to the adjacent bedroom, through which one can access the corridor via an additional set of doors. In the section adjoining the kitchen, accessible through a small vestibule with stairs leading to the basement, Gottfried designed a semi-closed veranda with a possible opening onto an inner patio with a terrace. This area was recessed from the line of sight from the street, ensuring a sense of privacy for its occupants. The project documentation for the house indicates that its usable area amounts to 139 m², while the living area measures 101 m².

Architect Jerzy Gottfried sought to imbue the house with a individualized character, evident in every part of the design. This intention is reflected both in the use of natural finishing materials, such as stone and wood, and in the creative approach to lighting solutions. Examples include translucent windows and skylights, such as the triangular skylight above the living room window, crafted using glass waste repurposed from a glassworks.

[305] Based on an interview conducted by the author with Jerzy Gottfried in 2017.

[306] Since 2017, the house has remained unoccupied. Starting in 2021, the current owner has undertaken efforts to prevent moisture damage at the junctions of the walls with the foundations and the walls with the roof structure.

Fig. 40. House designed by Jerzy Gottfried at 11 Słowików Street, Katowice: The project documentation, 1957 [a-b]; a perspective drawing of the house from the south, created by Jerzy Gottfried, 1958 [c]; the view from the north, 2023 [d]; the view from Słowików Street, 2023 [e]; the view from the south garden, 2017 [f]; the view of the living room, 2017 [g]. Sources: the Building Archive of the City of Katowice [a-b], Jerzy Gottfried's private archive [c], photographs taken by the Author [d-g].

III. ***14 Wrzosowa Street, Szczyrk*** *(Jurand Jarecki, 1972)*

The design for the single-family house on Wrzosowa Street in Szczyrk was commissioned from architect Jurand Jarecki in 1972 by the director of the state-owned ski resort[307]. The plot designated for the house is picturesquely located on the slopes of Mount Magura, with its southern side adjoining Wrzosowa Street, which leads to the center of the mountain resort of Szczyrk. The plot offers an attractive view of Mount Skrzyczne.

Due to the current state of the building, in which the original architectural expression of the structure has been almost entirely lost, the most important sources of information about it were an interview conducted with the designer, Jurand Jarecki, and a study of archival project documentation.

Although the house formally has two levels (a garage with technical facilities on the lower level and a residential level above), for the purposes of this study, it has been classified as a single-level house. The placement of the garage on the lower level was necessitated by the conditions of the plot, which features a relatively steep slope. All the functional and residential spaces of the house are located on a single level, including the main entrance, thereby meeting the criteria for classification as a single-level structure.

According to the project documentation, the house has a usable area of 111 m². Functionally, its layout is divided into two zones: a formal daytime zone, featuring a spacious living room with access to a scenic terrace cantilevered over the garage and slope, and a nighttime zone with three bedrooms. Between these zones is a fully enclosed kitchen, adjacent to sanitary facilities serving the nighttime area. A notable feature of the design is the inclusion of an additional entrance with a vestibule located near the bedrooms. This solution provided greater independence and flexibility in the house's use, particularly when the hosts expected guests. The additional independent entrance enhanced the occupants' sense of privacy.

The horizontal form of the house on the mountainside was originally accentuated by the artistic treatments applied to its façades. The inter-window bands were distinguished by wooden cladding, framed at the top and bottom by contrasting strips finished with light-colored plaster. Additionally, a custom-designed reinforced concrete balustrade emphasized the horizontal orientation of the design, while its irregular balcony plan introduced a sense of dynamism when viewed obliquely. Breaking the horizontality of the composition is the prominent, massive chimney of the fireplace adjoining the living room, which serves as a striking vertical element in the overall design.

[307] Based on an interview conducted by the author with Jurand Jarecki in 2021.

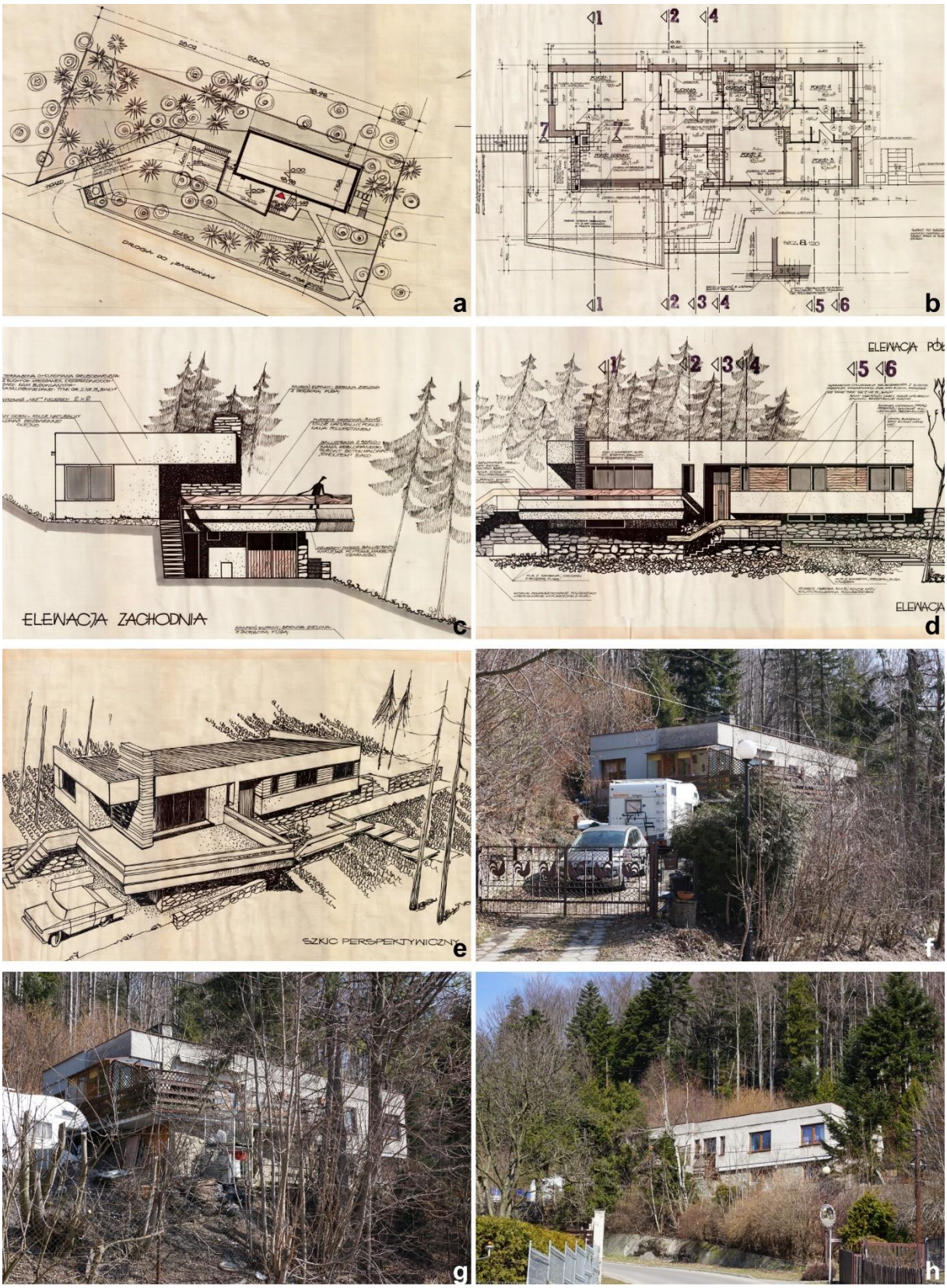

Fig. 41. House designed by Jurand Jarecki at 11 Wrzosowa Street, Szczyrk: the project documentation, 1972 [a-e]; View from the perspective of Wrzosowa Street, 2022 [f-g]; View from the south, 2022 [h]. Sources: the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [a-e]; photographs taken by the Author [f-h].

IV. ***84 Drozdów Street, Katowice*** *(Wiktor Lipowczan, 1972)*

Another example of a single-family house with all functional spaces located on a single level is the residence designed in 1972 by Wiktor Lipowczan. The house is situated on a corner plot at the intersection of Jerzyków and Drozdów Streets in Katowice. The project was commissioned by a well-known gynecologist from Katowice, who requested a design that would combine residential functions with a small medical practice, enabling him to privately see patients. It is worth noting that the choice of Lipowczan as the architect for this project was no coincidence. In previous years, he had designed several other houses within the Ptasie Osiedle, each distinguished by its unique architectural character[308].

Upon an initial survey of the house, its classification as a single-level structure might be questioned due to the raised central section featuring a window positioned at the height of an upper floor. However, discussions with the current owners and a review of the project documentation revealed that this upper level serves merely as an auxiliary space in the form of an unused attic. Given that all functional spaces are located on a single ground-floor level, the house can unequivocally be classified as part of this group of bungalows. The house consists of several interconnected segments and two primary sections: a residential part with an integrated garage, and an adjoining section containing the medical practice. Both sections have independent entrances: the entrance to the residential area is located near the garage door, while the entrance to the medical practice is highlighted by an arched opening in a stone wall that conceals a small patio, serving as a forecourt for the clinic. The residential section features a circular layout of rooms organized around an internal atrium that provides natural light to the hall, part of the living room, the bathroom, and the corridor. The space of the hall and the dining room, which adjoins a semi-open kitchen, is differentiated in level from the living room, which is lowered by the height of three steps from an open staircase. In the deeper part of the house, there are three bedrooms, a utility room, and a wardrobe. This nighttime zone is accessible from both the daytime zone and the entrance hall. The medical practice comprises a waiting room with an attached restroom for patients and the main doctor's office. Notably, there is direct access to the doctor's office from the living room, as well as to the waiting room from the dining area, allowing for functional versatility between the residential and professional spaces.

The volumetric differentiation of the house is emphasized by the use of stone cladding on the façade, which visually breaks up the cubic forms covered with plaster. The compositional dominant of the structure is a massive chimney clad in stone. As of 2024, the building's integrity remains preserved, including the retention of the original materials by the current owners.

[308] Based on an interview conducted by the author with architect's wife, Halina Lipowczan in 2020.

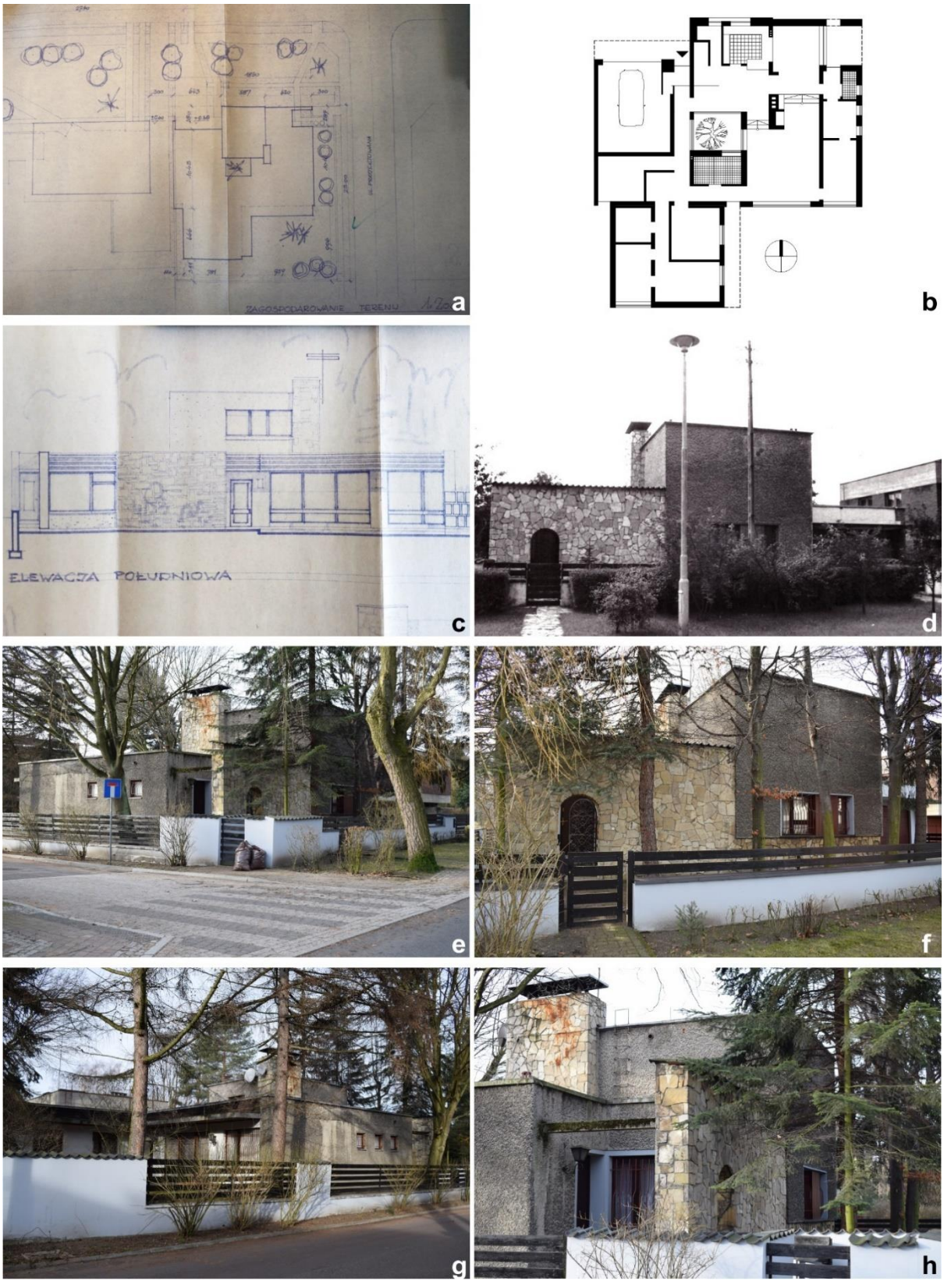

Fig. 42. House designed by Wiktor Lipowczan at 84 Drozdów Street, Katowice: the project documentation, 1972 [a, c]; a schematic drawing of the ground-floor plan of the house [b]; photograph of the house from 1959 [d]; View from the perspective of Drozdów Street [e-f]; view from the perspective of Jerzyków Street [g-h]. Sources: the Building Archive of the City of Katowice [a, c]; prepared by the Author [b]; photographs taken by the Author [e-h].

V. ***290 Panewnicka Street, Katowice*** *(Wiktor Lipowczan, 1976)*

In 1976, a well-known in the region surgeon commissioned architect Wiktor Lipowczan to design a custom single-family house, which he planned to build in the Panewniki district of Katowice. The plot he owned is located between Panewnicka Street and a forest that is part of an expansive woodland complex of significant natural value. Just beyond the edge of the plot, on the forest side, flows the Kłodnica River. The construction of the house lasted three years, and it was occupied in 1979. Today, the house is still inhabited by the widow of the original investor and has remained unchanged in its form.

The southern boundary of the plot adjoins a street; however, this did not pose any inconvenience due to the plot's substantial length of 65 meters. This allowed the architect to propose a design positioning the house 40 meters away from the road, providing the residents with both enhanced privacy and effective noise protection from the main street. The house is laid out in an L-shaped plan, clearly distinguishing between the daytime and nighttime zones. The living room occupies the entire western wing of the house and, according to the project documentation, has an area of 55 m². It features windows facing north (framing views of the Kłodnica River), west, and south, with access to a terrace. In contrast, the two bedrooms have windows oriented to the east, as does the private study, which is the southernmost room of the house. A notable aspect of the design is the functional circulation layout: the main entrance allows guests to be directed into the study without entering the deeper, more private part of the hall, which is adjacent to the owners' bedroom. Across from the hall is a spacious, enclosed kitchen with a dining nook. The hall also accommodates the staircase leading to the basement. At the basement level, below ground, there is a garage for two cars, accessed via a ramp located on the northern side of the house.

From the exterior, the house stands out due to the combination of cladding materials, including natural stone. The stone was used to cover the massive chimney as well as the retaining walls of the terrace. The horizontal composition of the segment housing the living room is broken by reinforced concrete fins supporting large terrace windows. Due to the inability to survey the house's interior, it can only be assumed, based on the architectural project analysis, that the stone cladding motifs were continued inside as well[309]. Architect Lipowczan meticulously detailed the interior designs of most rooms, as evidenced by drawings found in the archival project documentation.

[309] In the case of this house, the property owner did not grant the author access to the premises, making a complete photographic documentation of the building impossible. However, she agreed to provide information about the house via the intercom.

Fig. 43. House designed by Wiktor Lipowczan at 290 Panewnicka Street, Katowice: the project documentation, 1976 [a-c]; photograph of the house from 1977 [d-e]; aerial view of the house using Google Maps [f]; view from the perspective of Panewnicka Street, 2023 [g]; view from the perspective of the neighboring parcel, 2023 [h]. Sources: the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [a-e]; Google Maps [f]; photographs taken by the Author [g-h].

VI. ***4 Morwowa Street, Katowice*** *(Wojciech Pietrzyk, 1976)*

In the northeastern part of the Koszutka district in Katowice, single-family and villa-style housing began to emerge in the 1920s, later complemented by multi-family buildings constructed after the war. Among this diverse development, a modern single-story single-family house was built on Morwowa Street in the second half of the 1970s. The identity of the house's original investor is unknown. However, notes discovered in the project documentation indicate that the design was commissioned from architect Wojciech Pietrzyk from Kraków, known recently for his designs of the Loreth House in Kraków and the Książek House in Tarnów (both mentioned in Section 3.5 in this dissertation). The designer's initials also appear at the bottom of the drawings[310]. Unfortunately, the exact history of the house and its owner remains unknown, despite the author's efforts to conduct interviews in the neighborhood. It is known that in the early 2000s, after several ownership changes, the house was purchased by a private company and underwent extensive renovations. These alterations stripped the building of its original stylistic features, resulting in the documented current state.

The original spatial concepts of the house can only be discerned from the recovered archival project documentation. The building's form, still visible despite extensive renovations, is tightly integrated within the boundaries and fences of the adjacent plots. The house featured several innovative natural lighting solutions, including skylights and light shafts that directed daylight into the living room, corridor, and sanitary facilities. These light shafts were also treated compositionally as accents in relation to the compact original form of the house. An analysis of the functional layout reveals a subtle angling of certain walls, which extended into the compositional plan of the garden. The boundary between the daytime and nighttime zones was subtly marked by a slight level difference in the corridor, not exceeding 50 cm in height.

Due to the lack of archival exterior photographs of the building, it is difficult at this stage of research to determine whether the boldly designed façade was fully realized according to the original concept. It is certain, however, that the house garnered significant social attention for its time, as emphasized by architect Ryszard Jurkowski[311].

[310] The signatures present on the drawings were compared by the author with Wojciech Pietrzyk's signatures found in the documentation of the Loreth House in Kraków, based on the author's earlier research.
[311] Based on an interview conducted by the author with Ryszard Jurkowski in 2023.

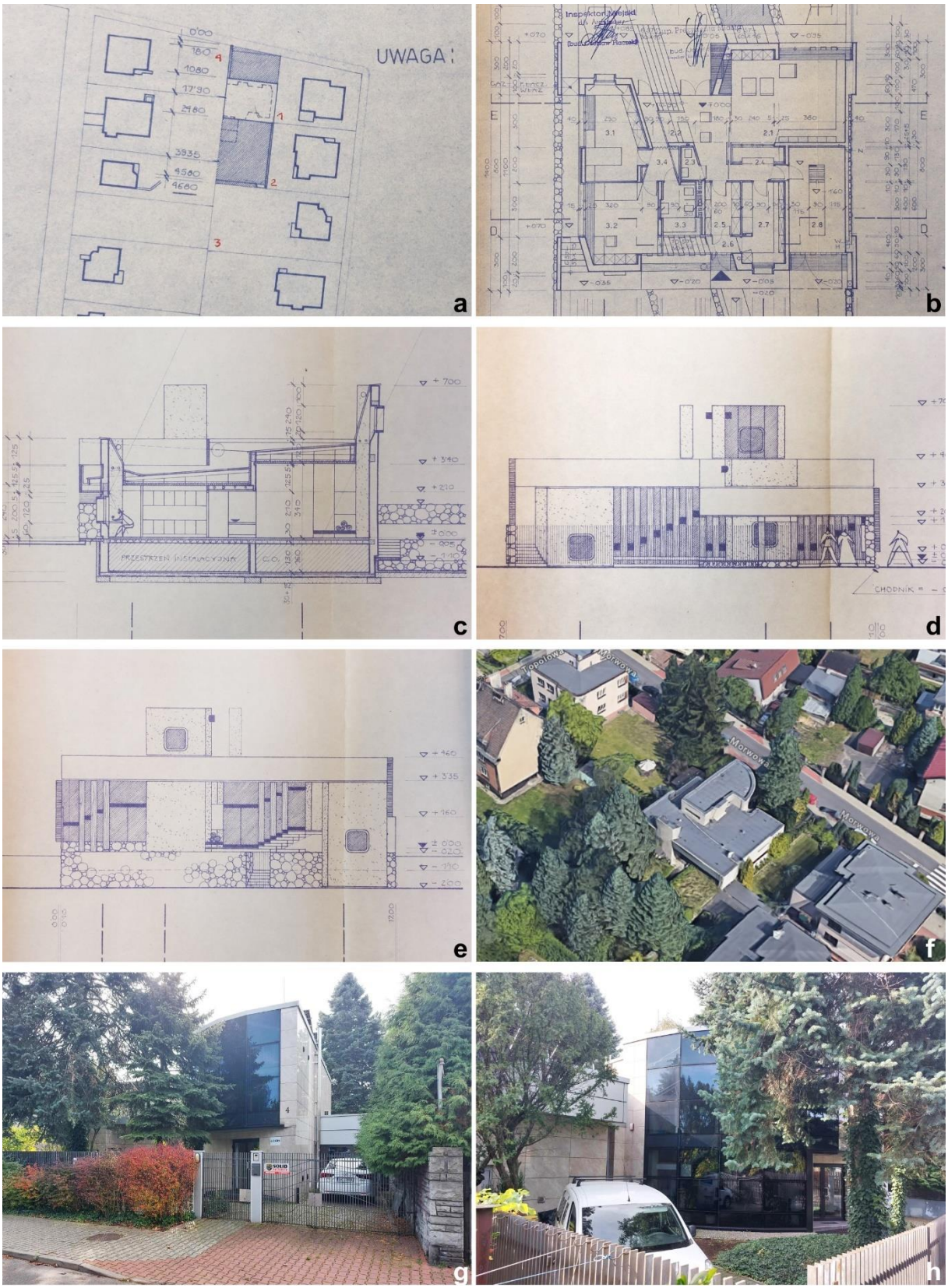

Fig. 44. House designed by Wojciech Pietrzyk at 4 Morwowa Street, Katowice: the project documentation, 1976 [a-e]; aerial view of the house using Google Maps [f]; view from the perspective of Panewnicka Street, 2024 [g-h]. Sources: the Building Archive of the City of Katowice [a-e]; Google Maps [f]; photographs taken by the Author [g-h].

b. Houses with elevated residential storey

This building type is defined as consisting of a lower non-residential storey (with a height of 220 cm or less) at ground level, which includes the main entrance and auxiliary spaces such as technical rooms and utility areas like boiler rooms or garage. Above this level is a residential storey (with a height exceeding 220 cm) that accommodates the primary living spaces (including living room, kitchen), offering full functionality and comfort for the occupants.

VII. ***48 Kilińskiego Street, Katowice*** *(Wiktor Lipowczan, 1966)*

In the southern part of Katowice's city center, between Kościuszki, Zajączka, Poniatowskiego, and Kilińskiego Streets, lies a picturesque pre-war villa colony completed in the late 1920s. In the 1960s, the garden of one of the villas on what is now Kilińskiego Street was subdivided into an independent building plot, which was assigned the address number 48[312]. This plot was acquired for construction purposes by a well-known photographer, who in 1966 approached architect Wiktor Lipowczan with a request to design a custom single-family house. Construction of the house began later that same year.

The architect designed the house to be situated as far back from the street as possible, placing it deep within the garden to ensure it does not dominate the surrounding pre-war villas. At the same time, the western part of the plot was left open for a garden, which became the focus of most interior views. The building consists of two storeys. The lower storey, due to its ceiling height of 208 cm, was not classified as usable area under the regulations of the time. This level houses a garage, a set of technical rooms, a laundry, a drying room, and a spacious hall with an open staircase leading to the upper, residential floor. The upper floor features a spacious 60 m² living room, a separate kitchen adjoining the sanitary facilities, and three additional rooms, one of which is open to the living room and serves as a study and library. The daytime zone is well-lit by a band of windows facing west, offering views of Kilińskiego Street and the garden. Directly accessible from the living room is a loggia, also oriented westward.

A distinctive feature of the house's exterior is the composition of its façade: the upper storey, slightly cantilevered westward, appears to be supported on the north and south by two massive shear walls clad in natural stone. These walls frame a horizontal band of windows, whose large glazing imparts a strikingly modern character to the design.

[312] Based on an interview conducted by the author with the current owner of the house in 2022.

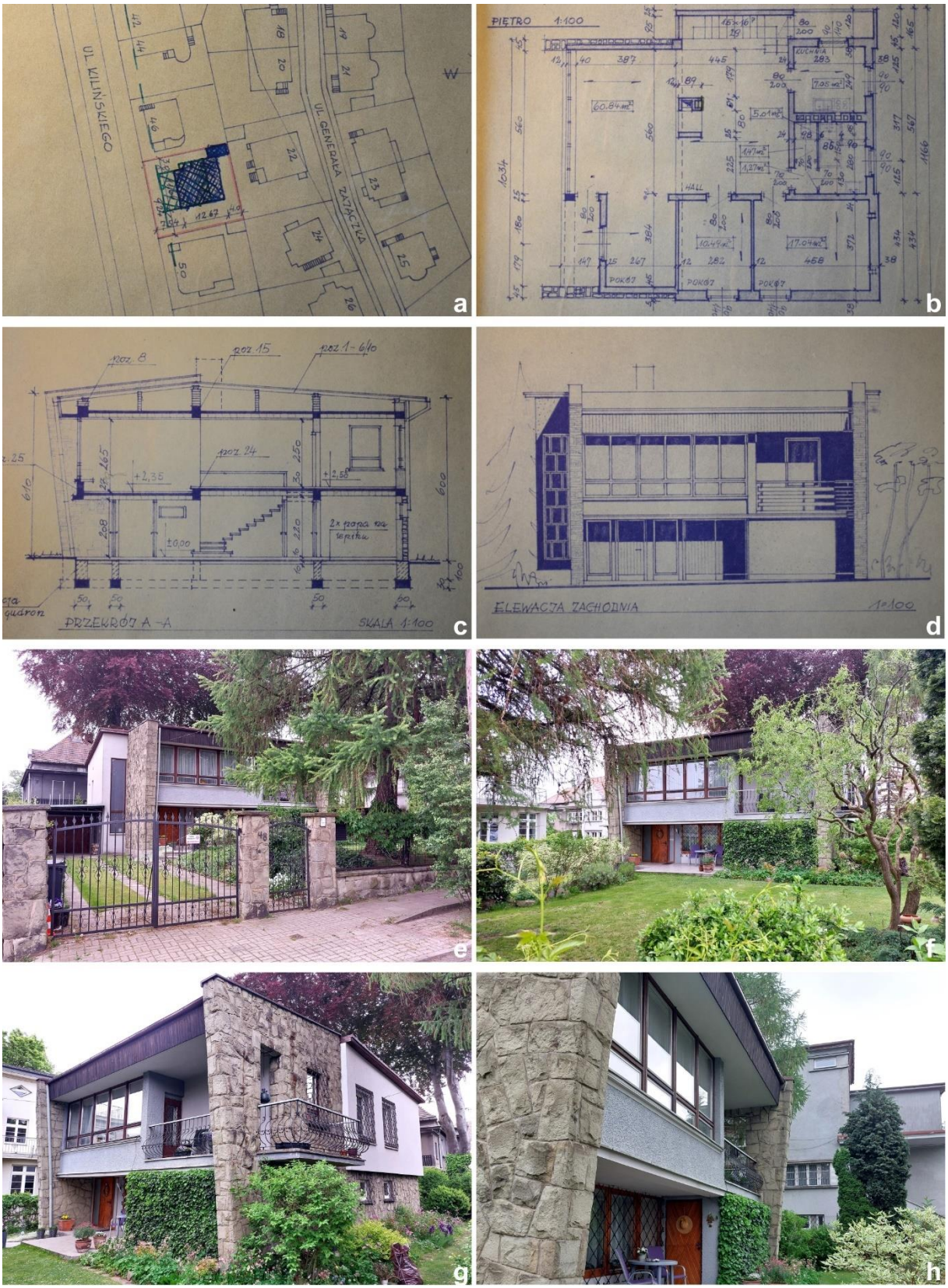

Fig. 45. House designed by Wiktor Lipowczan at 48 Kilińskiego Street, Katowice: the project documentation [a-d]; view from the perspective of Kilińskiego Street, 2022 [e]; views from the perspective of the garden, 2022 [f-h]. Sources: the Building Archive of the City of Katowice [a-d];]; photographs taken by the Author [e-h].

VIII. ***38 Kukułek Street, Katowice*** *(Jurand Jarecki, 1969)*

Adjacent to House No. IV, on a corner plot bounded by Drozdów and Kukułek Streets, stands a single-family house designed by architect Jurand Jarecki for a physician. The project was developed in 1969, with construction completed in 1973. Although the main entrance is oriented toward Drozdów Street, the house is administratively assigned to Kukułek Street. On the northern side (Drozdów Street), the house was designed without a fence; instead, the garden at the main entrance seamlessly transitions into a green buffer zone extending along the sidewalk and Drozdów Street.

The house is a two-storey structure, with all residential and sanitary spaces located on the upper floor. The lower floor includes a garage, boiler room, storage room, and a spacious hall featuring a prominent staircase and an exit to the garden on the western façade. The low-ceilinged hall (with a room height of 208 cm) was also designed to function as a fireplace room, with a fireplace located in this space and another directly above it in the living room. The residential floor has a ceiling height of 255 cm and a clear division between the daytime and nighttime zones. The daytime zone features a semi-open kitchen overlooking Drozdów Street and a bathroom with a toilet, while the nighttime zone includes three bedrooms accessed via a short corridor located at the center of the plan.

The building features a compact, rectangular form. The upper floor has a larger outline than the lower one, with a cantilevered section overhanging the entrance area on the side facing Drozdów Street. An interesting stylistic approach aimed at reducing the visual weight of the cubic form was the division of the residential floor into horizontal bands. This was achieved using two recessed concrete bands with visible formwork impressions (above and below the window band) and brick cladding in the spaces between the windows. Additionally, the area between the kitchen and bathroom windows on the entrance façade was accentuated with wooden cladding strips. A notable feature of this façade is the prominently displayed reinforced concrete gutter channel, which directs water from the flat roof to a chain suspended between the gutter outlet and the ground. As emphasized by the architect, this detail was both aesthetic and functional: the investor specifically requested a solution to minimize the sound of water being discharged from the gutters[313].

The house has been preserved in its original technical condition, as it remains in the ownership of the investor's descendants. In 2023, the window frames were replaced; however, the new frames were precisely replicated from the originals. A noticeable alteration in 2024 was the addition of a covered steel pergola on the western garden side, adjacent to the ground-floor exit to the garden.

[313] Based on an interview conducted by the author with Jurand Jarecki and the current owners of the house in 2021.

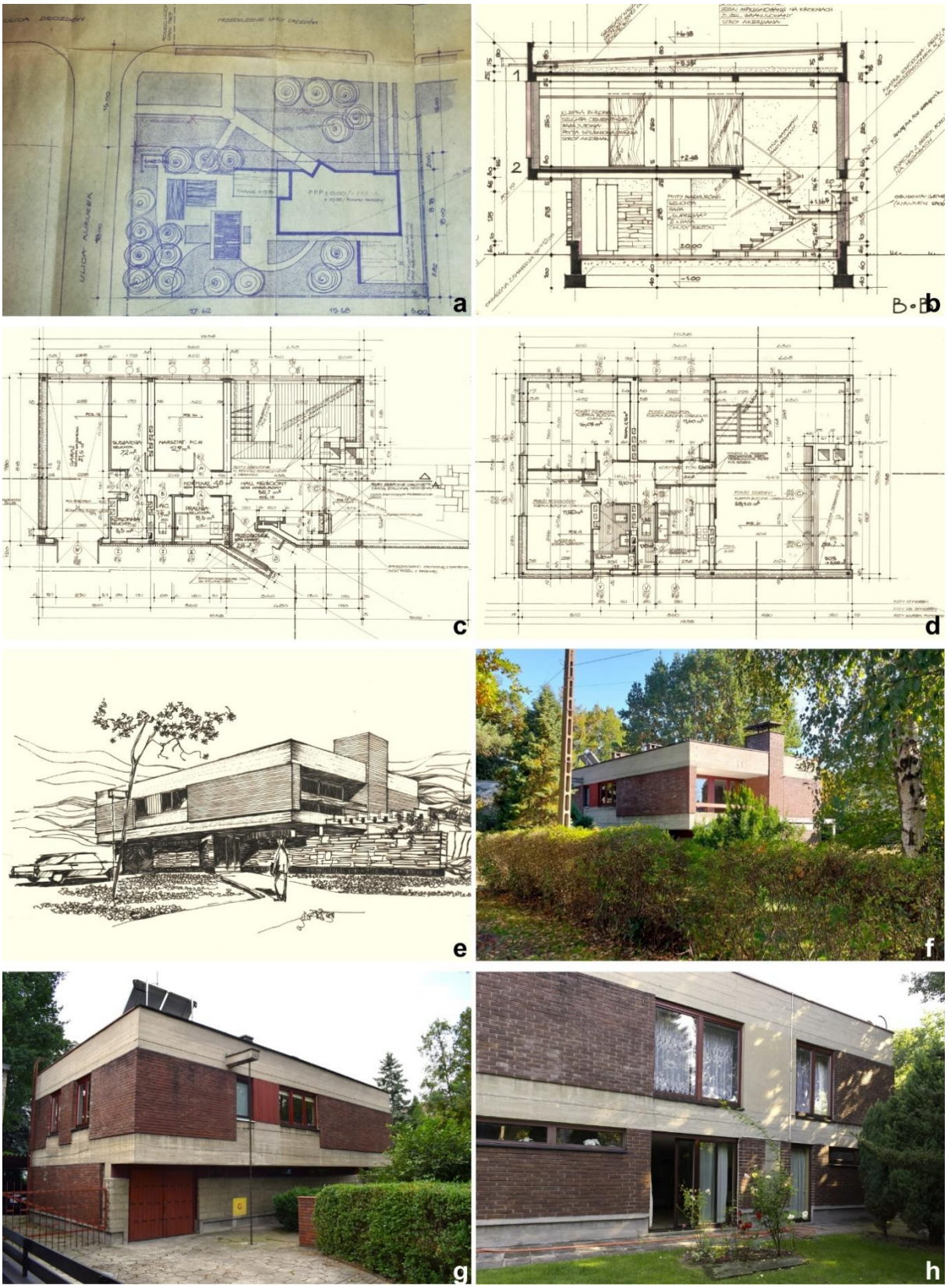

Fig. 46. House designed by Jurand Jarecki at 38 Kukułek Street, Katowice: the project documentation, 1969 [a-d]; Perspective drawing by Jurand Jarecki, 1969 [e]; views from the perspective of Drozdów Street, 2023 [f-g]; view from the perspective of the garden, 2024 [h]. Sources: the Building Archive of the City of Katowice [a]; the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [b-e]; photographs taken by the Author [f-h].

IX. ***31 Drozdów Street, Katowice*** *(Wiktor Lipowczan, 1969; demolished: 2012)*

Opposite House No. VIII stood the own single-family residence of architect Wiktor Lipowczan until 2012. Lipowczan was the designer of numerous private single-family houses commissioned by the social elites of the region in the second half of the 20th century. Today, a different house with a minimalist aesthetic, completed around 2015, occupies the site.

Wiktor Lipowczan designed a single-family house for himself, his wife, and their son on a prominently located corner plot at the intersection of Drozdów and Kukułek Streets[314]. The ground floor, with rooms measuring less than 220 cm in height, housed an entrance hall, a garage, and an architect's studio with direct access to the garden. It is worth noting that such adaptations of spaces, which were not legally designated for residential or professional use, were relatively common at the time. These lower rooms often served well as a study or hobby room. A straight-flight staircase led to the upper hall, which opened onto a spacious living room illuminated by two large floor-to-ceiling windows. These windows provided excellent natural lighting for the daytime zone, facing south and west. Extending from the living room was a dining area, which adjoined a fully enclosed kitchen. In addition to a bathroom and toilet, the upper floor included three large bedrooms, one of which featured a dedicated walk-in closet.

In the collective memory of the residents of Ptasie Osiedle, this house was regarded during the 1970s and 1980s as one of the most striking designs completed in the neighborhood[315]. As such, it became a showcase for its architect, attracting additional clients who commissioned projects from him in subsequent years.

[314] Based on an interview conducted by the author with Halina Lipowczan in 2020.
[315] Based on an interview conducted with former neighbors of the Lipowczan family in 2020 and 2021, residing in houses along Drozdów and Kukułek Streets.

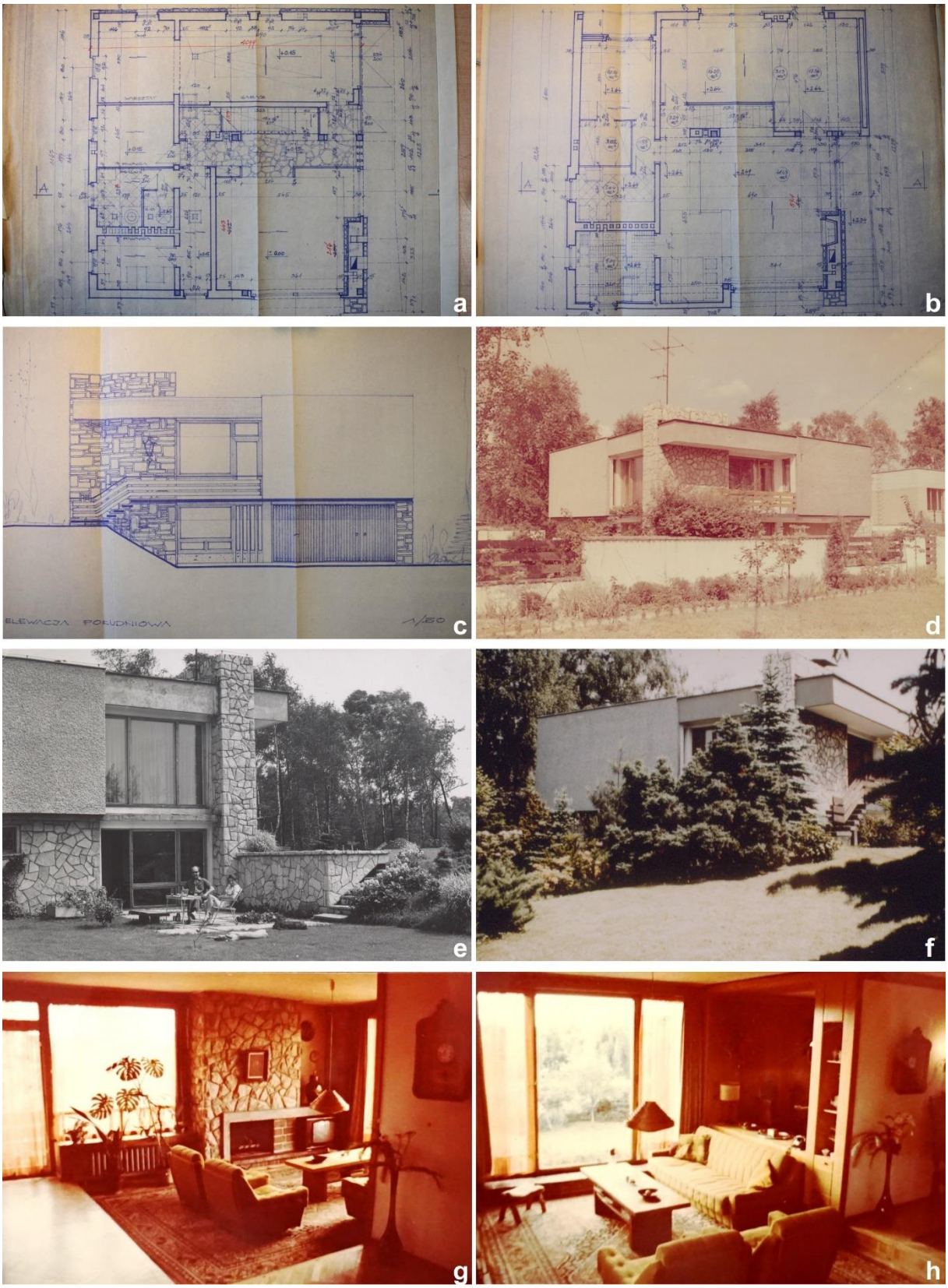

Fig. 47. House designed by Wiktor Lipowczan at 31 Drozdów Street, Katowice: the project documentation [a-c]; photographs of the house from 1970s [e] and early 1990s [f]; photographs of the living room from the 1970s [g-h]. Sources: the Building Archive of the City of Katowice [a-c]; the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [d-h].

X. ***5 Poziomkowa Street, Katowice*** *(Wiktor Lipowczan, 1969)*

In the Ligota district of Katowice, on Poziomkowa Street, Wiktor Lipowczan designed a single-family house in 1969 for a married couple—a physician and a school principal—which was occupied in 1972. The building was set back toward the rear of the plot, allowing for the creation of a garden at the front, along Poziomkowa Street.

The building consists of two storeys, with the ground floor designed as an elongated rectangular prism, including a segment housing a two-car garage. The upper floor appears as a box cantilevered over the ground floor. The ground floor, with a ceiling height of 210 cm, contains a spacious hall, two additional rooms (intended as technical rooms according to the project documentation but actually used as the owners' study and a hobby room), a boiler room complex, and a passage leading to the garage. An open two-flight staircase connects the hall to the upper level and leads directly into the living room, which is corner-located and illuminated by large windows facing south and west. The southern window also functions as an exit to a terrace situated above the garage. This terrace includes an external fireplace outlet, integrated into a substantial structure that also houses the chimney of the internal fireplace. Adjacent to the staircase axis is a dining area, well-lit by a large window, and adjoining a separate kitchen. Three bedrooms are arranged in a functional sequence along the eastern side of the house.

The house has remained in the hands of the same family to this day, which has contributed to the preservation of its original condition. In 2024, the owners are planning a major renovation aimed at improving the building's thermal performance. However, they have emphasized their commitment to preserving as many original elements as possible. Where replacements are necessary, they intend to undertake them with meticulous attention to detail, ensuring precise replication of the original features[316].

[316] Based on an interview conducted with current owners of the house in 2024.

Fig. 48. House designed by Wiktor Lipowczan at 5 Poziomkowa Street, Katowice:]; aerial view of the house using Google Maps [a]; the project documentation, 1969 [b]; photographs of the house from 1970s [c-d]; view from the perspective of Poziomkowa Street, 2024 [e]; view from the perspective of the driveway [f]; view from the perspective of the rooftop terrace [g]; view of the backside patio with the entrance to the hobby room [h]. Sources: Google Maps [a]; private archies of the current owners of the house [b]; the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [c-d]; photographs taken by the Author [e-h].

XI. ***31 Nowokościelna Street, Tychy*** *(Ewa and Marek Dziekońscy, 1969)*

On Nowokościelna Street in Tychy, on a plot sloping southward, stands a house designed by Ewa and Marek Dziekońscy, completed in the mid-1970s. It was commissioned by a well-known local physician, who requested that the architects include a separate section of the house dedicated to his private medical practice, accessible through a separate entrance. The design underwent several iterations and was approved by the client in 1969, at which point a building permit was granted.

The house consists of two storeys, with the lower one featuring rooms with a ceiling height of less than 220 cm. Formally, the use of such low-ceilinged rooms as a medical office would not have been permissible. However, this solution was implemented, and, according to the current owners, these rooms were described in the submitted plans as storage and utility spaces, which did not raise any concerns during the approval process.

The ground floor comprises three distinct zones: the medical office suite, a garage for two cars, and a spacious hall with a single-flight staircase leading to the upper storey. From the street, the house appears as two rectangular volumes stacked atop one another. In reality, however, the upper residential floor is U-shaped, achieved by carving out a semi-open patio with a terrace from the building's volume. This design ensures both privacy and visual separation from the surroundings while providing excellent lighting for the living room and the corridor with its staircase leading downward. Aligned with the patio's exit is the kitchen, adjacent to which are the sanitary facilities. Further along, three south-facing bedrooms form the private sleeping area.

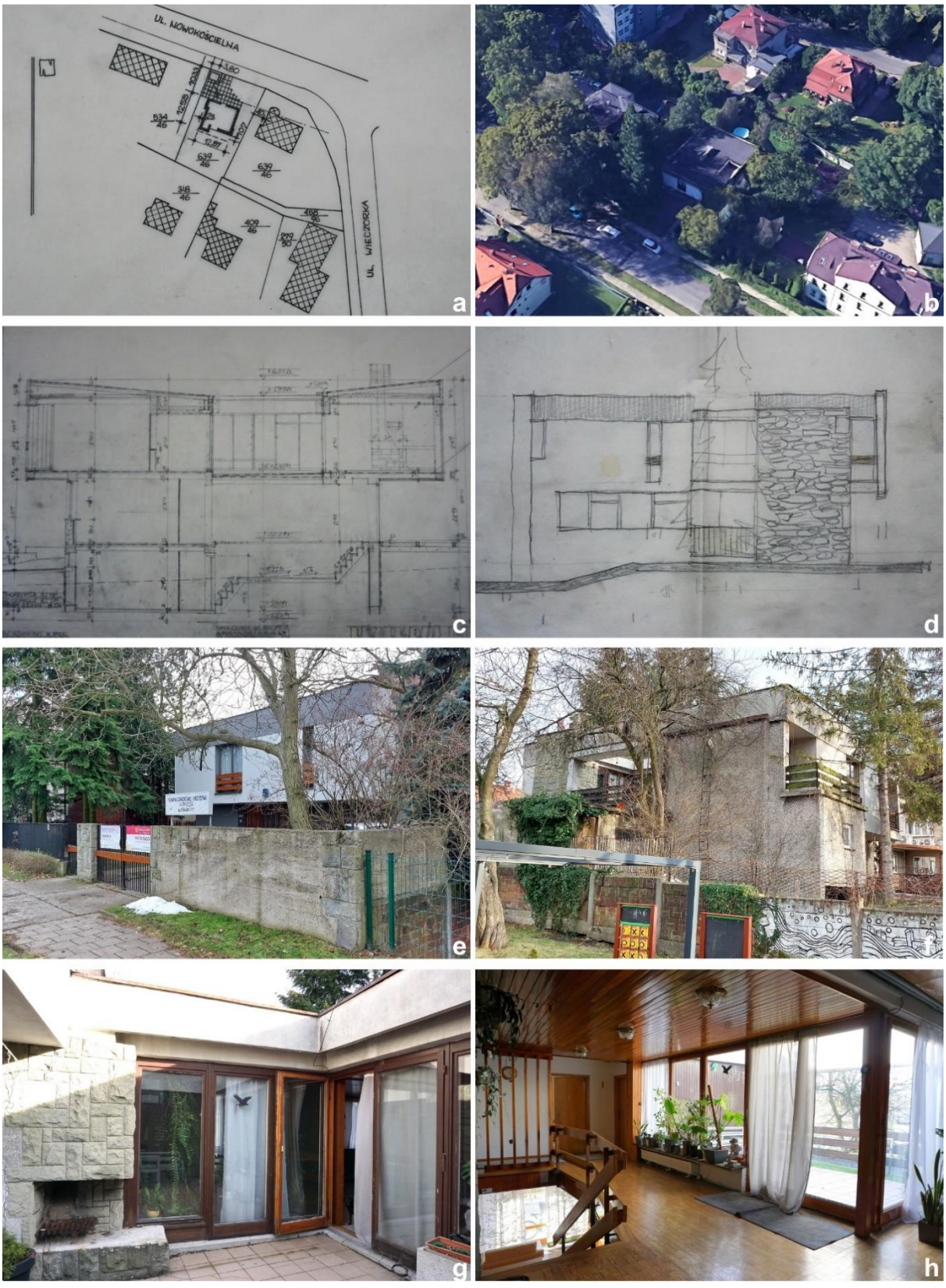

Fig. 49. House designed by Ewa and Marek Dziekońscy at 31 Nowokościelna Street, Tychy. Preserved fragments of the design documentation, 1969 [a; c-d]; aerial view of the house using Google Maps [b]; view from the perspective of Nowokościelna Street, 2023 [e]; view from the west, 2023 [f]; view of the patio from the outside [g] as well as from the inside [h]. Sources: Archives of the Museum of the City of Tychy [a; c-d]; Google Maps [b]; photographs taken by the Author [e-h].

XII. ***4 Zielona Street, Ustroń*** *(Henryk Buszko and Aleksander Franta, 1971)*

The city of Ustroń, located at the foot of Mount Równica, was already renowned for its natural attributes before World War II. However, it experienced a significant rise in popularity starting in the late 1950s and early 1960s, spurred by the construction of a sanatorium and spa complex in the Zawodzie district. Due to the need for employing qualified medical personnel, it was decided to build a row housing complex in the city center to encourage this workforce to settle in Ustroń. The complex, consisting of three rows of townhouses, created an opportunity to integrate three parcels of land for representative single-family villas between the housing blocks and existing buildings along Zielona Street.

One of these parcels, from the second half of the 1960s, was occupied by the former villa of General and Silesian Voivode Jerzy Ziętek (described in this dissertation as Villa XIX). East of this villa, in 1971, the architects responsible for the expansion of the Zawodzie spa, Henryk Buszko and Aleksander Franta, designed a prestigious residence for Edward Gierek, the First Secretary of the Polish United Workers' Party (PZPR). The villa was completed in 1973 and remains in the Gierek family to this day. However, it no longer serves as a residence. Instead, it houses a private clinic operated by family members, which has affected the preservation of its original material condition.

Information about the original spatial arrangement of the interior can only be inferred from the preserved design documentation. The building consists of two floors. The technical ground floor housed a three-car garage, a food storage room, a bunker, a series of technical rooms with a large boiler room, and a service and delivery entrance. This entrance was concealed behind a massive pillar supporting the terrace leading to the main representative entrance located on the upper floor. A glass vestibule led into a similarly glazed representative hall, which functionally connected three clearly defined zones: the work zone with an office and waiting room, the private nighttime zone with five bedrooms and a set of bathrooms and dressing rooms, and the private daytime zone with a spacious living room connected to a dining nook and an adjoining conservatory with access to a terrace overlooking the southern garden. The building is composed of an arrangement of interlocking cuboids. A distinctive element of the western façade is its rounded form: a bay window of the dining nook illuminated laterally.

The preserved elements of the project documentation indicate that the building was characterized by simplicity in the choice of finishing materials. At the same time, it featured extensive glazing in both wooden and aluminum frames, which drew considerable attention. However, none of these original elements have survived to the present day.

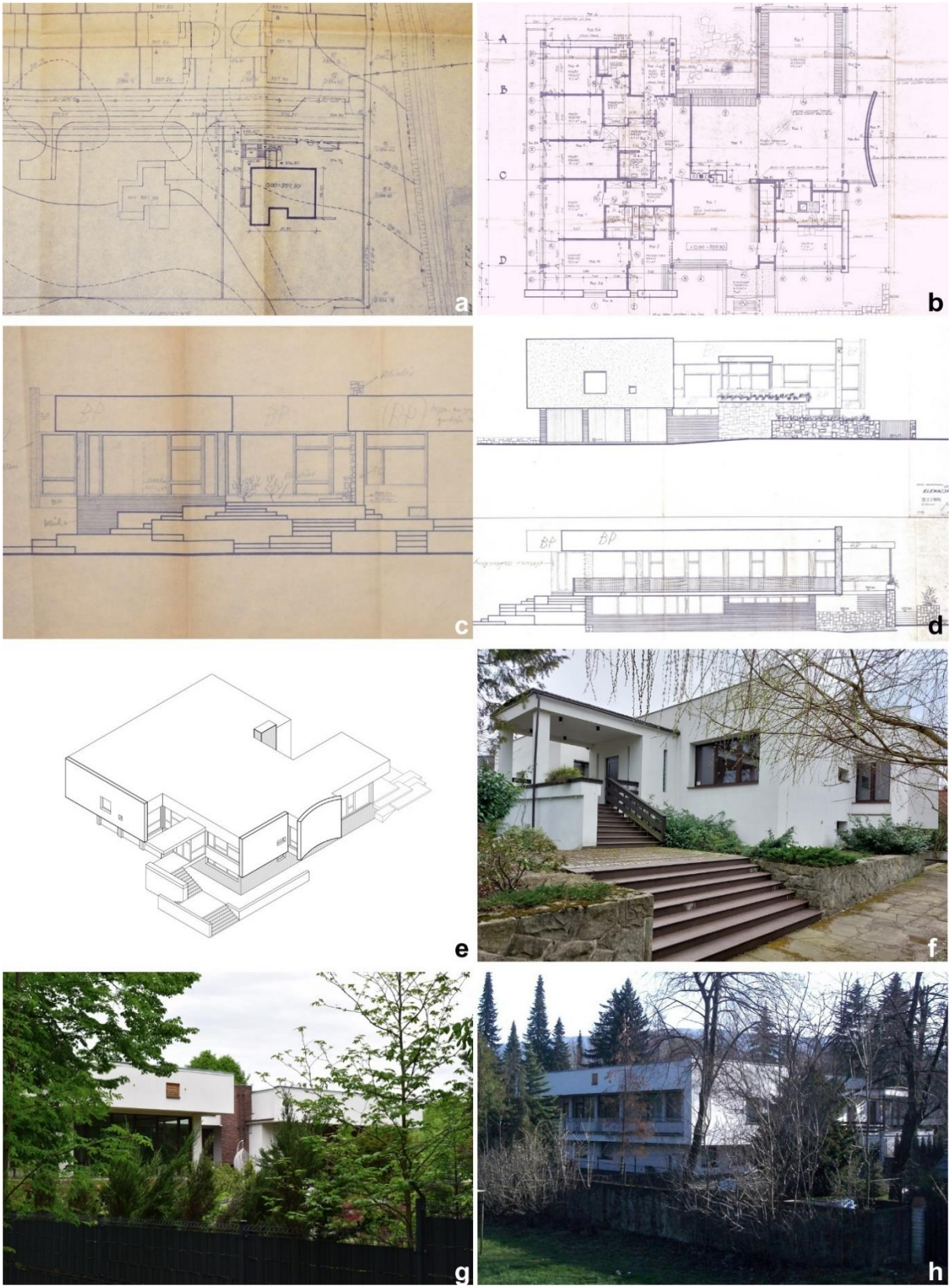

Fig. 50. House designed by Henryk Buszko and Aleksnader Franta at 4 Zielona Street, Ustroń: the project documentation, 1971 [a-d]; an axonometric drawing of the entire form of the house in its original appearance [e]; photographs from Nord-west [f], South-west [g] and Nord-east [h]. Sources:]; the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [a-d]; prepared by the Author [e]; photographs taken by the Author [f-h].

XIII. ***4A Długosza Street, Gliwice*** *(Jerzy Witeczek, 1974)*

A single-family house, designed in 1974 by architect Jerzy Witeczek at the request of a rally driver, is situated in the center of Gliwice on a plot set back from Długosza Street. The plot is surrounded by villa-style buildings and taller tenement houses from the 1920s. The house is only briefly visible from a distance, particularly from the driveway, where its recessed form appears tightly inserted between two other built-up parcels.

The two-story building includes, on the ground floor, a garage for two cars, a boiler room, and a spacious 40 m² hall that serves as the entryway. The hall features an open staircase leading to the upper residential floor. Originally, the hall included a large west-facing glazed area with access to a terrace and views of the garden. The open staircase is illuminated by narrow windows overlooking a semi-enclosed patio to the north. This design is reminiscent of the solution employed in a house designed by Ewa and Marek Dziekoński on Nowokościelna Street in Tychy (No. XI).

The patio is accessible from the master bedroom, ensuring privacy for its occupants despite the close proximity of the neighboring building. In total, the house contains three bedrooms: one on the north side with patio access, and two with south-facing windows. Adjacent to the bedrooms is a spacious bathroom. The living area comprises a living room with direct access to a west-facing balcony, which connects to the garden via external stairs, and an adjoining dining room that opens onto a semi-enclosed kitchen.

From the exterior, the southern (entrance) façade is notable for its characteristic rhythm of the upper-floor windows. This design not only contributes to the building's aesthetic appeal but also reflects the internal arrangement of spaces: for example, the kitchen's window was originally positioned higher, a detail altered during recent renovations and the building's thermal modernization. Additionally, the original window frames have not been preserved, and the pattern of the ground-floor windows, which originally illuminated the spacious entry hall, has been modified.

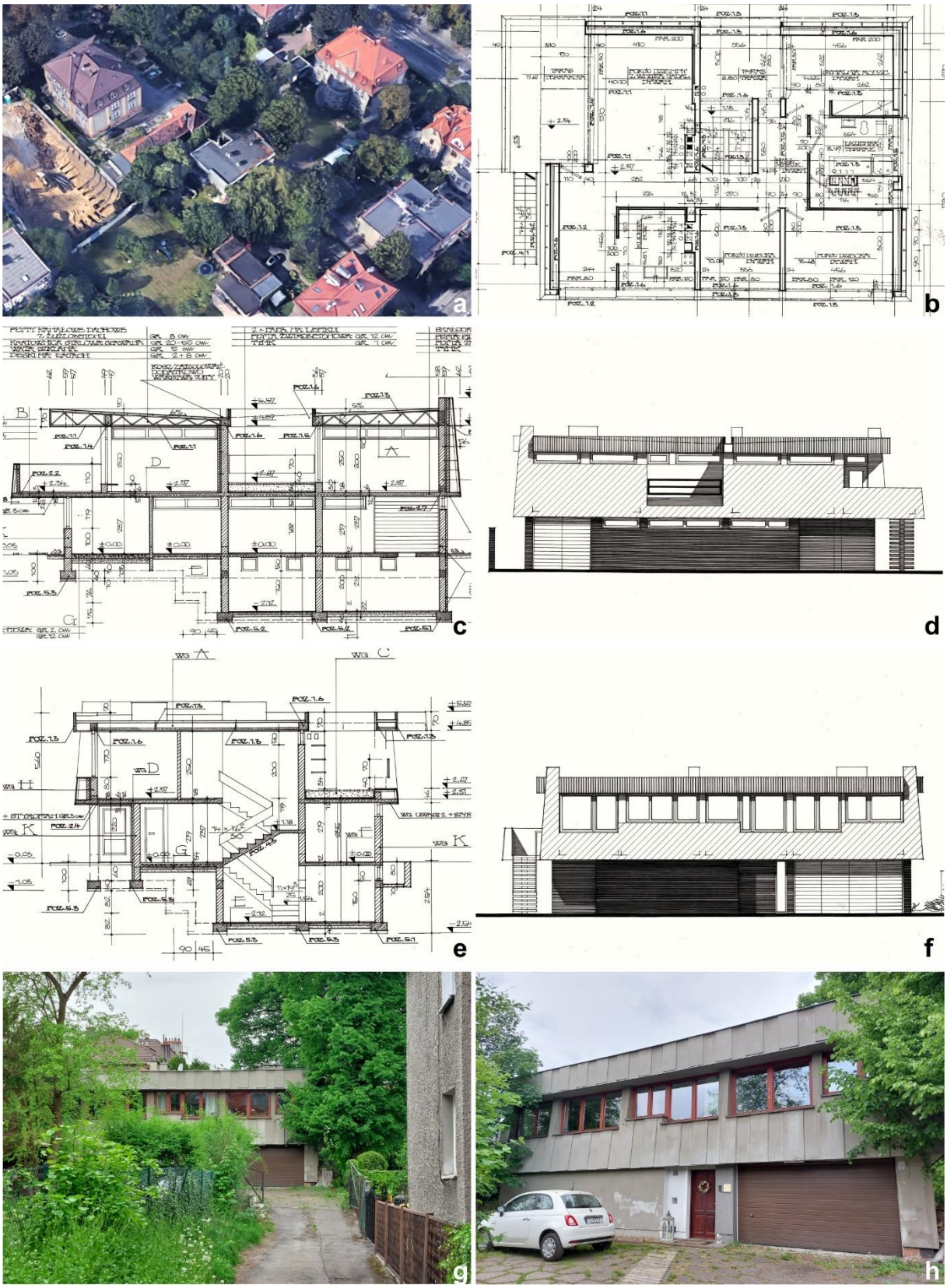

Fig. 51. House designed by Jerzy Witeczek at 4A Długosza Street, Gliwice: aerial view of the house using Google Maps [a]; the project documentation, 1974 [b-f]; view from the perspective of Długosza Street [g]; view on the south façade [h]. Sources: Google Maps [a]; the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [b-f]; photographs taken by the Author [g-h].

XIV. ***178 Jankego Street, Katowice*** *(Jerzy Witeczek, 1977)*

In one of the southern districts of Katowice, Piotrowice, a single-family house is located on Jankego Street. At first glance, it might be mistaken for a building with functions other than residential. The design of this house was commissioned by an entrepreneur who owned a private production facility originally situated on the neighboring plot. Architect Jerzy Witeczek faced the challenging task of integrating the building into the context of the existing development, which bordered the plot designated for the house. An additional aspect to consider during the design process was the client's requirement to include, on the ground floor, a garage for several delivery vehicles, a small workshop, and storage facilities linked to the operations of his business. The other part of the house, unconnected to these functions, was designated for private residential spaces.

The house was set back as far as possible within the plot, a solution advantageous not only because of the heavy traffic on Jankego Street but also for functional reasons. This decision ensured optimal daylighting for the living areas and facilitated the placement of a concealed terrace adjacent to them. Notably, the terrace, also recessed beyond the edge of the neighboring building, enhances privacy. Individuals using the terrace are not visible from Jankego Street. Both the terrace and the living room are illuminated by western light, unobstructed by the neighboring building due to the house's positioning. On the opposite side of the house, a row of two bedrooms, a bathroom, and a kitchen is situated, with windows facing east.

The segment containing the staircase connecting the main entrance on the ground floor to the upper residential level was given a particularly distinctive exterior expression. The angle of the staircase run was mirrored in the slope of the roof, adding dynamism to the visual composition of the house's volumes. This segment contrasts with the rectangular eastern block housing the bedrooms and kitchen. The eastern façade's window arrangement was made more visually engaging by breaking the rhythm with one window positioned lower than the others.

Another notable feature that significantly impacts the house's external perception is the use of sheet metal cladding for much of the exterior walls. These metal bands were paired with wooden façade slats, creating an interplay of contrasting materials.

Fig. 52. House designed by Jerzy Witeczek at 178 Jankego Street, Katowice: aerial view of the house using Google Maps [a]; the project documentation, 1977 [b-e]; photograph from 1981 taken by J. Witeczek [f]; view from the perspective of Jankego Street, 2023 [g]; view from east, 2023 [h]. Sources: Google Maps [a]; the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [b-f]; photographs taken by the Author [g-h].

XV. ***18 Zawilców Street, Tychy*** *(Stanisław Niemczyk, 1977)*

In the Czułów district of Tychy, the predominant architectural style is low-rise single-family housing, which began to take shape in the 1950s. At the end of one of the cul-de-sacs branching off Zawilców Street, a single-family house was built in the late 1970s and early 1980s, designed by architect Stanisław Niemczyk for a private entrepreneur. To this day, the house is still occupied by its original owner.

The plot designated for the house bordered the building line of an existing neighboring single-family home. Being the last plot in the row of houses along the driveway, the location provided the architect with significant freedom in its development. As a result, Niemczyk designed a house with a multi-faceted, sculptural form. Its structure can be broadly described as comprising a technical ground floor with a garage and two spiral staircases enclosed in externally prominent cylindrical volumes, and an upper residential level organized around a fully enclosed patio, completely concealed from the street and neighboring properties.

The residential floor was designed in a U-shaped plan. Two wings are occupied by the living spaces, divided between a living room and a dining room with an open kitchen. The third wing, situated on the side facing Zawilców Street, contains the private nighttime area, with a corridor leading to bedrooms oriented toward the street. All bedrooms and living areas provide direct access to the patio terrace.

One of the most distinctive elements of the house, setting it apart from neighboring buildings, is its use of façade materials, including ceramics (brick and clinker tiles) and wooden elements. Originally, the roof was covered with ceramic tiles; however, in recent years, some sections have been replaced with metal roof tiles. The windows retain their original wooden frames.

Fig. 53. House designed by Stanisław Niemczyk at 18 Zawilców Street, Tychy: aerial view of the house using Google Maps [a]; the preliminary project documentation, 1977: ground floor [b] and first floor [c]; view from the perspective of Zawilców Street, 2022 [d]; view from the Nord-west, 2022 [e]; view from Nord-east [f] and East, 2022 [g]; view of the inner patio, 2022 [h]. Sources: Google Maps [a]; Private archives of the home-owner [b-c]; photographs taken by the Author [d-h].

c. Split-level houses

This type of building was defined as comprising at least two distinct sections that are vertically offset by the height of a partial storey, with each section containing at least one residential storey. Typically, the design incorporates at least two sections connected by short flights of stairs, where one section is offset vertically relative to the other by the height of a partial storey.

XVI. ***5 Sikorek Street, Katowice*** *(Stanisław Kwaśniewicz, 1958)*

The single-family house, designed in 1958 by Stanisław Kwaśniewicz for a railway engineer, is located at the end of Sikorek Street in the Ptasie Osiedle district of Katowice. It is adjacent to the architect Jerzy Gottfried's own residence (House No. II). This building represents one of the earliest examples among the analyzed houses that incorporate a split-level layout.

The structure is characterized by a compact form with a gently sloping roof descending towards the north. The staggered floor arrangement is externally signaled by the placement of windows, which serve as the primary element contributing to the dynamic appearance of the building's form. This effect is further enhanced by the roofline's gradual slope toward the north. On the eastern and western façades, the architect introduced windows of varying proportions and sizes, adding visual diversity to the exterior. On the southern side, the house features loggias spanning the entire width of the building, present on both the ground floor and the first floor.

The lowest level of the house contains a garage and an adjoining boiler room. Half a storey above, the main entrance level includes a hall and a living area, comprising an open kitchen connected to the dining room, a glass-enclosed winter garden, and a living room with direct access to a terrace on the southern side. A two-flight staircase leads to the next level, situated half a storey above the living area. This level contains two symmetrically positioned bedrooms located directly above the garage, with a toilet and shower originally placed between them. The final staircase flight leads to the highest level of the house, where two additional bedrooms are located. These rooms face south and have access to the loggia.

Currently, the house remains occupied by the family of the original owner. Most of the original elements of the building have been preserved, except for certain parts of the window joinery.

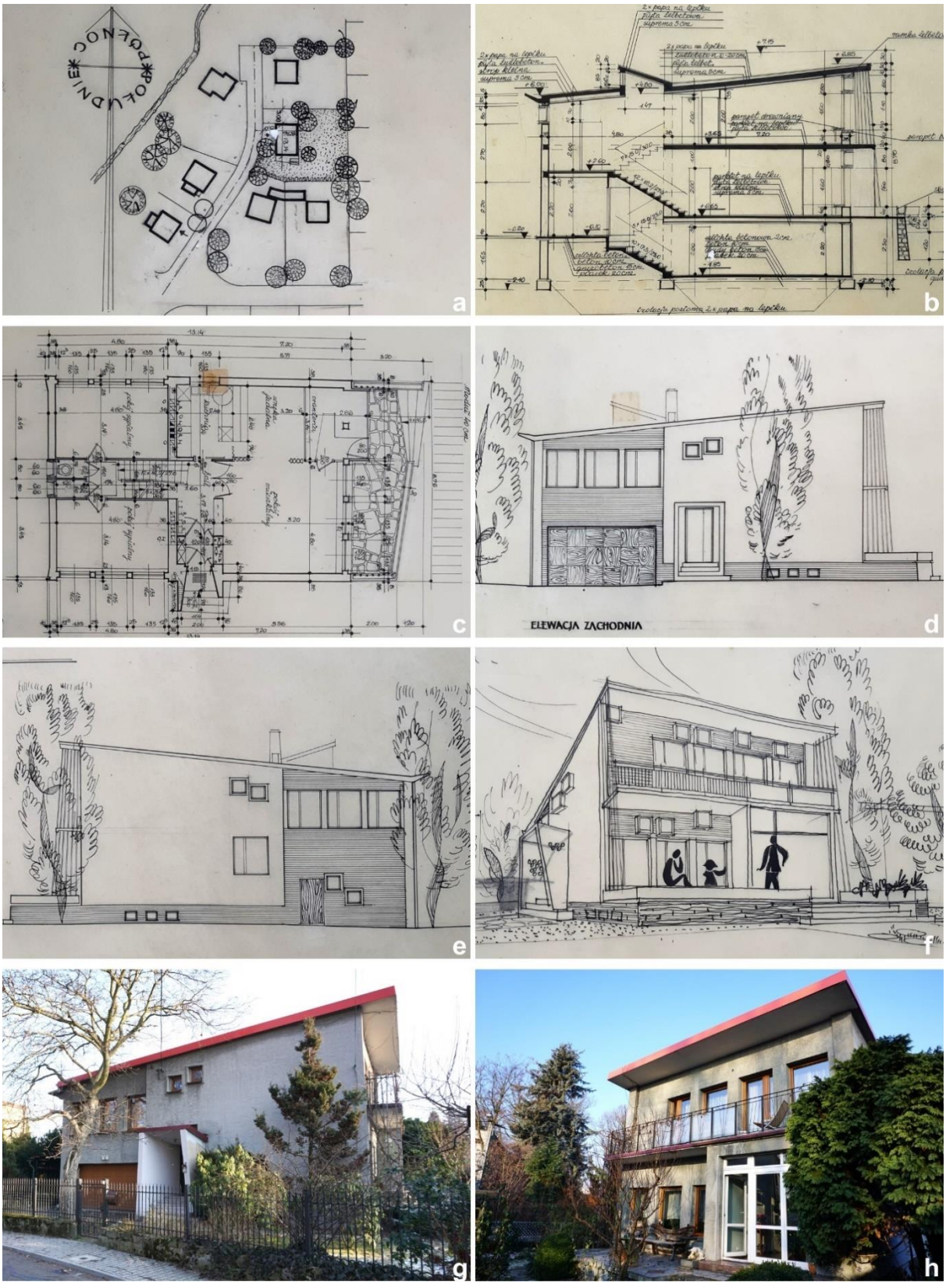

Fig. 54. House designed by Stanisław Kwaśniewicz at 5 Sikorek Street, Katowice: the project documentation with site plan [a], cross-section [b], second and third level floor plan [c], west façade [d], east façade [e] and perspective drawing by S. Kwaśniewicz, 1957 [f]; view from the perspective of Sikorek Street [g]; view from South-east [h]. Sources: the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [a-f]; photographs by the Author [g-h].

XVII. ***8 Górnośląska Street, Wisła*** *(Krystian Seibert, 1959)*

At the turn of the 19th and 20th centuries, Wisła was already a well-known health resort in the Beskid Śląski region. However, like Ustroń, it experienced significant development after World War II, primarily through the expansion of tourist infrastructure, which included large hotels owned by state enterprises, mostly from Silesia. In the second half of the 1950s, a decision was made to construct a hotel complex on the slope of Patrecznik, a hill overlooking the center of Wisła. The complex was to be accessed via a winding road that extended the pre-war route of the street now known as Górnośląska Street. It was along the initial section of this road, on a plot owned by a geodetic engineer, that architect Krystian Seibert designed a two-segment house in 1959. The house featured levels offset vertically by half a storey.

The context of Wisła's post-war spatial development was crucial: both the investor and the architect were granted permission to develop the plot on the condition that the proposed house would visually integrate into the horizontal spatial composition of the planned hotel complex on the hillside. Guided by this directive, architect Seibert designed the house as two elongated, horizontally oriented rectangular volumes, staggered and harmoniously integrated into the terrain. The building comprises two independent residential units, both initially occupied by members of the same family. Originally, this division was not evident in the external appearance; the spatial arrangement gave the impression of a cohesive structure with no clearly defined boundary between the segments. However, in recent years, one half of the building has undergone significant reconstruction, including the addition of a pitched roof, which has disrupted the architectural integrity of the structure and stands in contrast to the original design concept.

The building contains two residential units: one measuring 92 m² and the other 83 m². The smaller unit consists of a living room, a closed kitchen, and two bedrooms, while the larger unit includes one additional bedroom. Moreover, the spaces in the larger unit are distributed across two levels, with two bedrooms located half a storey above the level containing the entrance and the living room.

Fig. 55. House designed by Krystian Seibert at 8 Górnośląska Street, Wisła: the project documentation, 1959 [a-e]; view from the perspective of Górnośląska Street, 2023 [f]; view from the south [g]; view from the east-south [h]. Sources: private archives of the home-owner [a-e]; photographs taken by the Author [f-h].

XVIII. ***5 Widokowa Street, Pierściec*** *(Ludwik Herok, 1964)*

Pierściec is a small village located near the town of Skoczów, offering picturesque views of the Beskid Śląski range and the Cieszyn Silesia hills. It was here, in the early 1960s, that Ludwik Herok, an architect based in Gliwice, decided to design and build a home for himself and his family. Situated on a plot with a gentle southern slope, the compact house features a roof sloping in the opposite direction to the terrain, creating a subtle counterpoint to the natural topography. Completed and inhabited by the late 1960s, the house remains occupied by the family of the original owner and designer and has been preserved in its original state.

The house's functional program is distributed across three distinct levels. The lowest level contains the garage, a home workshop, and a boiler room. Half a storey higher is the main entrance, leading to a hall that connects the architect's original studio and the living room with its adjoining open kitchen. From the living room, a short flight of stairs leads to the topmost level, located above the garage and half a storey above the main living area. This level comprises the private night zone, which includes three bedrooms with south-facing windows and a bathroom illuminated by natural light from a skylight in a roof dormer.

One of the most striking features is the large glass façade situated between the living room and the adjoining outdoor terrace. This expansive glazing, set within robust reinforced concrete and steel frames, creates an intriguing visual connection between the interior and exterior. Particularly notable, evoking elements of the American 'Mid-Century' style, are the fully glazed upper panels, which remain fixed and visually extend the inclined roofline, blurring the boundary between indoor and outdoor spaces.

The house is distinguished by several artistic design solutions, including the alternating rhythm of the bedroom windows on the southern façade, ceramic mosaic cladding on portions of the walls, and the use of contrasting textures and colors in the exterior plasterwork.

Fig. 56. House designed by Ludwik Herok at 5 Widokowa Street, Pierściec: the project documentation, 1964 [a-b]; photographs from 1972 with the view from north [c] and view from the north-west [d]; view from the perspective of Widokowa Street, 2023 [e]; view from the south-west, 2023 [f]; view from the north, 2023 [g]; view on the living room, 2023 [h]. Sources: private archives of the home-owner [a-d]; photographs taken by the Author [e-h].

XIX. ***2 Zielona Street, Ustroń*** *(Henryk Buszko and Aleksander Franta, 1966)*

The single-family house, popularly referred to as the 'Ziętek's Villa' is officially named the Creative Work House of the Architect SARP[317]. Its colloquial name derives from the individual for whom it was designed by architects Henryk Buszko and Aleksander Franta. Jerzy Ziętek was a prominent figure in Upper Silesia, known for his contributions to the region's development. As the Chairman of the Voivodeship National Council in Katowice and later as the Silesian Voivode, he played a key role in implementing numerous flagship housing, infrastructural, and spa-related projects of the era. One such initiative was the construction of a modern health resort in the Ustroń Zawodzie district, which began in the early 1960s. The primary designers of the district were Henryk Buszko and Aleksander Franta, who were also commissioned to design a private residence for Jerzy Ziętek.

Based on preserved correspondence between Buszko and Franta, it is evident that the final design of the villa was approved at the end of 1966. The project was developed through close collaboration with its future residents, Jerzy Ziętek and his wife, Gertruda.

The building consists of several interpenetrating rectangular blocks. Originally, a fully roofed terrace was located where the current glazed winter garden now stands. In its original configuration, the glazing was limited to the wall separating the terrace and the main hall. A curved garage structure adjoins these elements, its roof converted into a terrace that connects seamlessly with the main block of the villa. Between the residential section and the garage, the architects introduced a distinctive feature: a mature tree planted in an arcade that rises through an opening in the terrace, accessible from the first floor.

The living spaces are distributed across three levels, each offset vertically by half the height of a full storey. The main entrance leads into a spacious hall that extends towards the garden. This hall also provides access to a caretaker's apartment, which has its own separate external entrance. Adjacent to the staircase is a small alcove, naturally lit by a window overlooking a semi-open patio, which was originally designed as a waiting area.

The internal layout of the house is carefully divided across multiple levels. Between the ground and first floors is the private family living room, which receives daylight from three directions, as well as the kitchen. The first floor contains the Ziętek family's private quarters, including two bedrooms, a study, and a bathroom. The study, like the living room, benefits from light entering from three sides. One of its horizontal windows frames a view of the tree's crown as it rises through the terrace opening, further underscoring the harmonious integration of architecture and nature in the villa's design.

[317] Since 1989, the former residence of Jerzy Ziętek has been owned by the Association of Polish Architects (SARP).

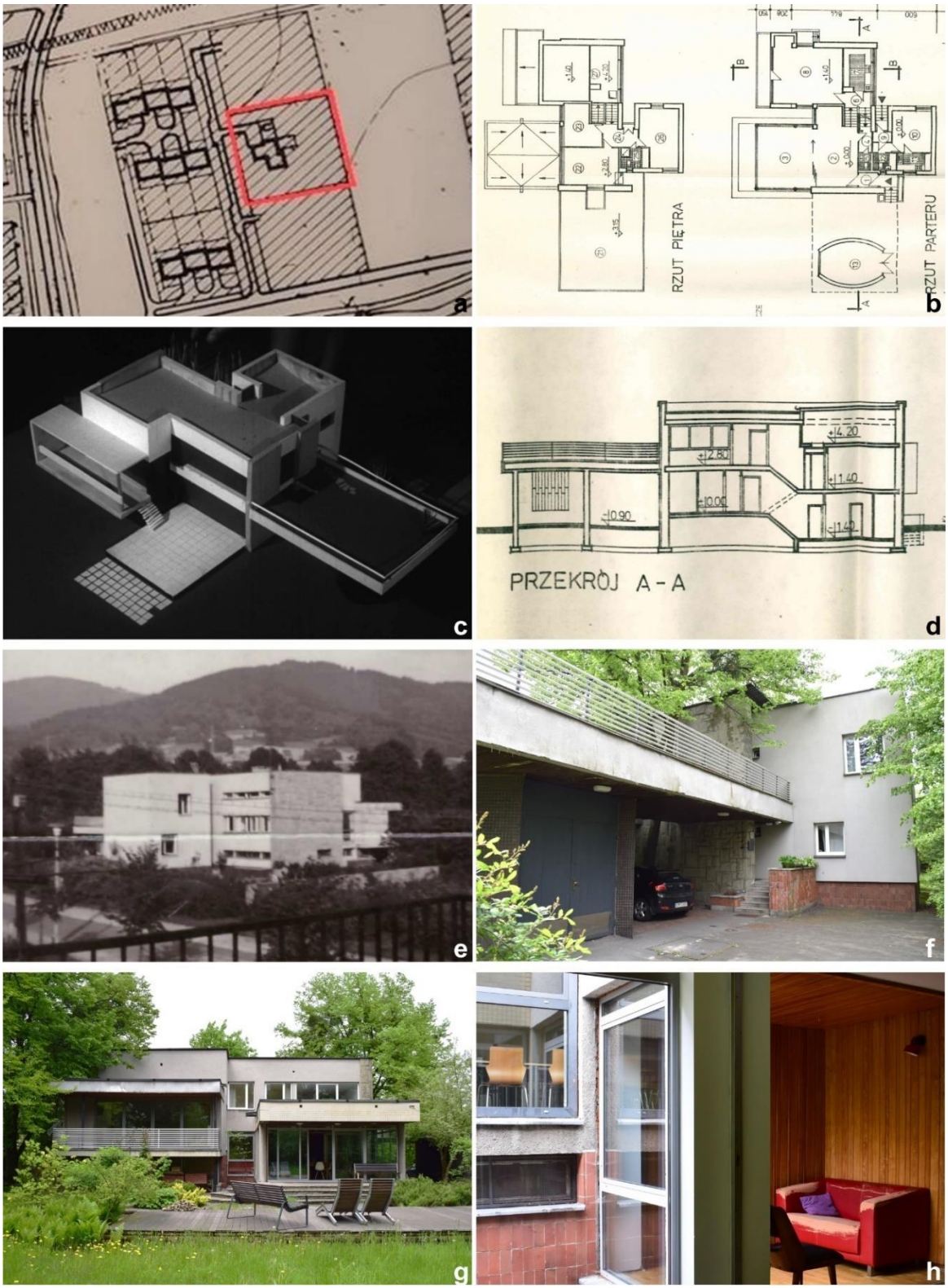

Fig. 57. House designed by Henryk Buszko and Aleksander Franta at 2 Zielona Street, Ustroń: the project documentation of the urban assumption of the healthcare center of Ustroń-Zawodzie, 1967 [a]; the documentation of the architectural survey drawings was prepared in 1990 by Jan Pallado [b, d]; a working model of the house was created by the architects [c]; view from the north-east [f] and the south-west [g]; a view of the interior of the lowest level reveals the distinction between the levels of the hall and the living room, showcasing the vertical offset between the spaces [h]. Sources: : the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [a-e]; photographs taken by the Author, 2022 [f-h].

XX. ***8 Moniuszki Street, Bielsko-Biała*** *(Marian Stańco, 1968)*

In the mid-1970s, Marian Stańco, a Bielsko-based architect, completed the construction of his private residence on a longitudinal plot along Moniuszki Street, based on a design he had prepared in 1968. Although the house has changed ownership over a decade ago, the current owner has taken great care to preserve the building's integrity and maintain its original finishing materials.

The house features spaces organized across four levels, each vertically offset by half the height of a standard floor relative to the adjacent one[318]. This design decision was influenced by the uneven topography of the plot. The lowest level accommodates the garage, while the next level houses a dining room adjacent to a separate kitchen. One level higher is the living room, featuring a large glazed opening facing south, and the sequence of bedrooms is distributed across the two highest levels.

Internal circulation is facilitated by short flights of stairs clustered around a massive load-bearing wall, which also houses integrated chimney and ventilation shafts.

The interior retains many of its original finishing materials, with particular attention drawn to the wooden wall cladding, balustrades, and partitions that define and zone the interior spaces.

[318] Based on an interview with the current owner of the house conducted in 2023.

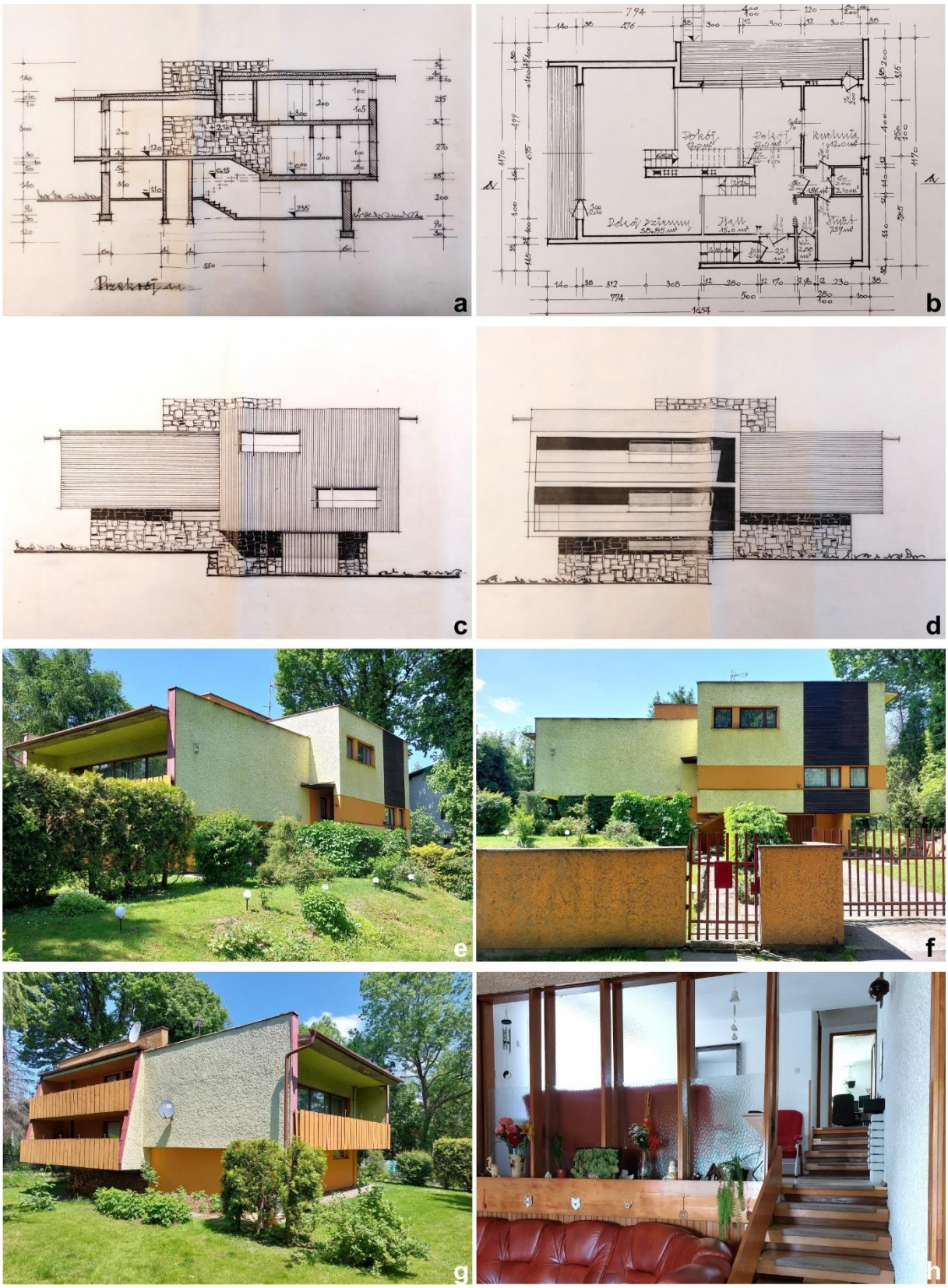

Fig. 58. House designed by Marian Stańco at 8 Moniuszki Street, Bielsko-Biała: the project documentation [a-c]; view from the perspective of Moniuszki Street [e-f]; view from the south-east [g]; view highlighting the variation in levels within the living room and the internal circulation [h]. Sources: private archives of the home-owner [a-d]; photographs taken by the Author [e-h].

XXI. ***7 Górnośląska Street, Wisła*** *(Bożena and Janusz Włodarczyk, 1972)*

In 1972, the husband-and-wife architectural duo Bożena and Janusz Włodarczyk designed a single-family house at the request of the mayor of Wisła. The client owned a plot located high on the slopes of Patrecznik Hill along Górnośląska Street, above the hotels constructed a few years earlier. Due to material shortages affecting the proposed architectural solutions, construction was prolonged and not completed until 1980.

Although the building was based on a square floor plan, it did not take the form of a simple cubic block. Through a design strategy involving a diagonal roof ridge combined with an inclined slope, the architects achieved a form that, when viewed from various perspectives, resembles a pyramid—a feature that earned the house its colloquial name in Wisła.

The largest room in the house is the two-story living room, located in the southern corner of the structure. This corner is also where the roof reaches its highest point, visually emphasizing the "pyramid peak" effect. The living room was designed to be entirely glazed, requiring a complex mullion structure. This feature significantly contributed to the delays in the building's completion.

The floor level of the living room is 1.5 meters lower than the floor level of the main entrance and the corridor leading to the bedrooms. An additional spatial and functional highlight is the staircase leading to a leisure platform suspended above the living room void, functioning as a mezzanine.

Among the finishing materials, the stone cladding sourced from a local quarry in the Obłaziec district of Wisła stands out. Remarkably, the house has been preserved in its original state both internally and externally, without any modifications or alterations.

Fig. 59. House designed by Bożena and Janusz Włodarczyk at 7 Górnośląka Street, Wisła: the project documentation, 1972 [a-d]; view from the perspective of Górnośląska Street, 2021 [e]; view from the perspective of the private driveway, 2021 [f]; view from the north-east, 2021 [g]; a view of the mezzanine above the living room, 2021 [h]. Sources: the private archives of the home-owner [a-d]; photographs taken by the Author [e-h].

XXII. ***8 Sasanek Street, Szczyrk*** *(Jurand Jarecki, 1973)*

On Sasanek Street in Szczyrk, there is a house designed in 1973 by architect Jurand Jarecki, which, due to extensive modifications, would be difficult to recognize in its original form. The house was commissioned by the director of a state enterprise in Katowice and completed in 1976. Its complex spatial layout, based on five staggered levels, makes it a prime example of a 'split-level' house. This intricate internal structure was reflected in the building's form, which consisted of four interlocking segments of varying sizes, offset relative to one another. Archival drawings and photographs indicate that this design effectively integrated the house into the slope of the mountain.

The lowest level housed a garage and boiler room. From the garage, short stairs provided access to the main entrance level, directly into the hall. From the hall, additional staircases led in opposite directions: one toward the living room on the highest level and the other toward the guest area, which included two bedrooms with independent outdoor access. Approximately half a meter below the living room, which was connected to the dining area and kitchen, was the floor level of two bedrooms and a bathroom.

Around 2006, the owners decided to modify the house significantly, adding multi-pitched roofs to all segments. They also removed the original reinforced concrete balustrade, which had evoked associations with brutalist aesthetics. The façade’s formwork concrete bands and wooden cladding were concealed beneath styrofoam insulation, further altering the building’s original appearance.

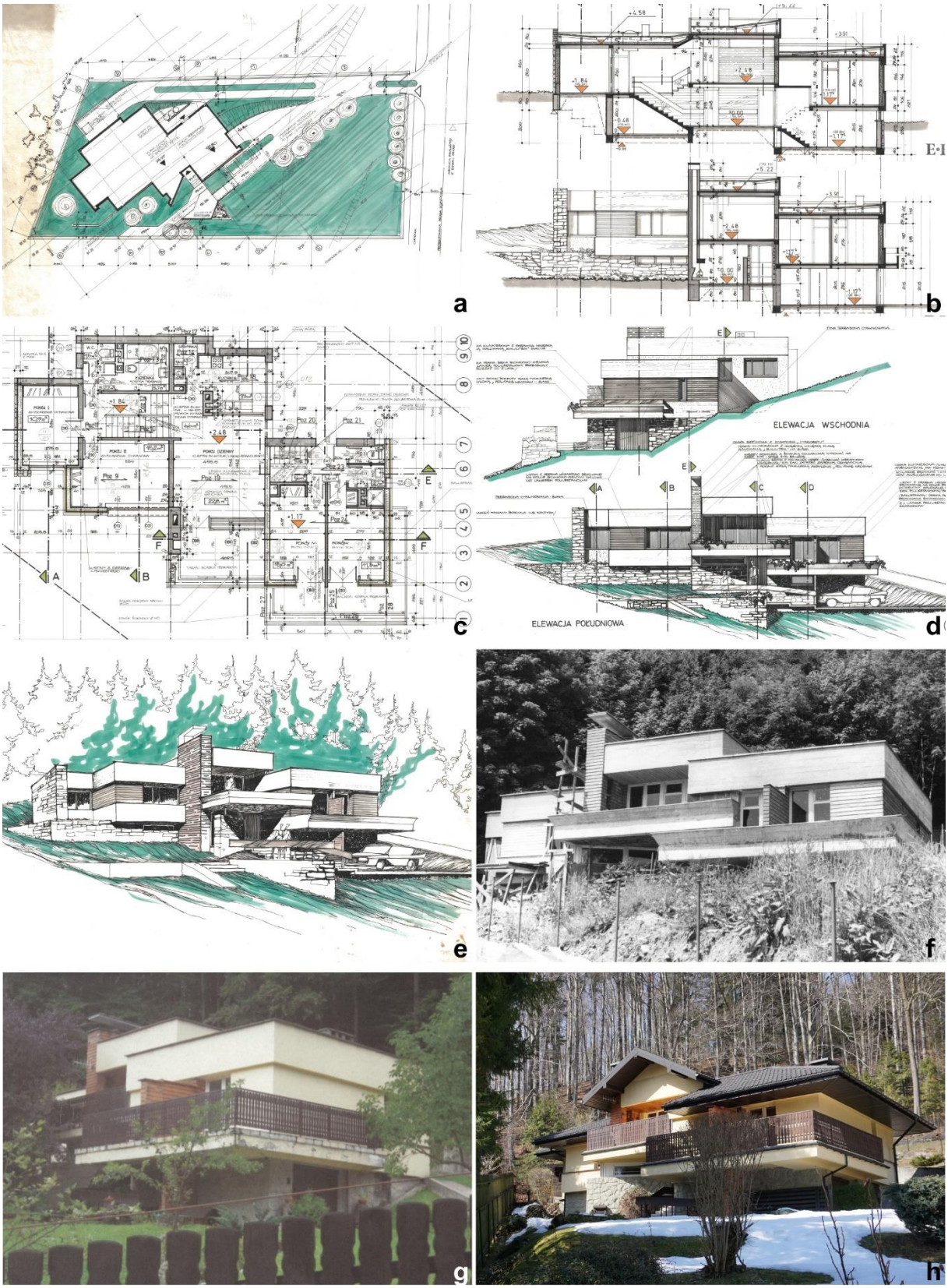

Fig. 60. House designed by Jurand Jarecki at 8 Sasanek Street, Szczyrk: the project documentation, 1973 [a-e]; photograph from 1975 taken by J. Jarecki [f]; photograph from 2003 taken by J. Jarecki [g]; photograph from the perspective of Sasanek Street, 2023 [h]. Sources: : the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [a-g]; photograph taken by the Author [h].

XXIII. ***4A Stroma Street, Sosnowiec*** *(Jurand Jarecki, 1975)*

In 1975, architect Jurand Jarecki, commissioned by the director of a state enterprise, designed a single-family house situated on a south-facing plot located on Stroma Street in Sosnowiec. The plot is well-exposed, and the building's structure is visible from a distance.

The house consists of four levels. The lowest level accommodates a garage and a boiler room. The second level contains the main entrance, a spacious hall, and a hobby room. The third level serves as the living area, featuring a living room and a dining nook connected to a semi-open kitchen. The topmost, fourth level, houses three bedrooms and a bathroom.

The original facade was designed in a style characteristic of Jarecki's architectural approach, featuring alternating bands of formwork-exposed concrete and strips of highlighted clinker brick. During the initial site study visit in 2022, the house's exterior remained unaltered, except for the replacement of window frames. However, by 2024, the building had been thermally insulated, and its interiors underwent significant redesign, including the demolition of some walls.

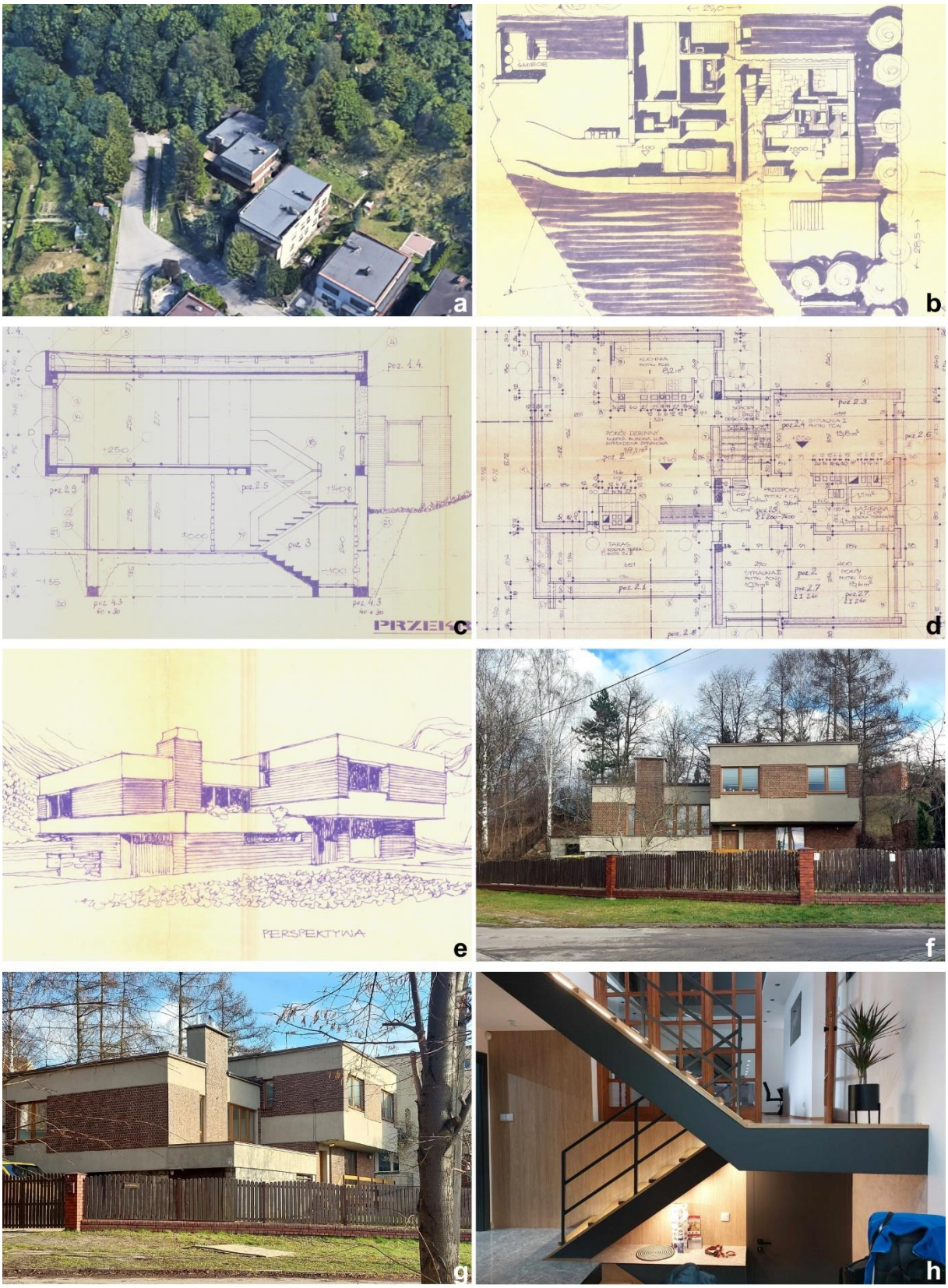

Fig. 61. House designed by Jurand Jarecki at 4A Stroma Street, Sosnowiec: aerial view with the use of Google Maps [a]; the project documentation, 1975 [b-e]; view from the perspective of Stroma Street, 2022 [f]; view from the south-west, 2022 [g]; a view of the open staircase and the level differences within the interiors, 2024 [h]. Sources: Google Maps [a]; the private archives of the home-owner [b-e]; photographs taken by the Author [f-g].

XXIV. ***5A Jerzyków Street, Katowice*** *(Wiktor Lipowczan, 1975; demolished: 2023)*

A particularly interesting example of a split-level house, though unfortunately no longer extant, was designed by architect Wiktor Lipowczan in 1975 for a physician. The house was located on a spacious plot stretching between Jerzyków and Meteorologów Streets in the Ptasie Osiedle district of Katowice. It was meticulously planned to provide its occupants with optimal interior lighting and picturesque views of the adjacent forest.

Despite appearing as a composition of multiple volumes, the house essentially consisted of a two-story main block (with a low ground floor and a residential first floor) and a half-level offset volume housing the living room. The floor level of the living room was lowered relative to the dining room, kitchen, and other living spaces. This lowered floor, combined with a ceiling maintained at a uniform height, resulted in a living room with an impressive height of approximately 3.5 meters, further enhanced by a floor-to-ceiling window. Another large window, a corner design, offered views from the dining area. From the east and southeast, the combination of these elements created an elegant and well-proportioned external composition.

The natural lighting of the bathroom, positioned between two bedrooms, was another noteworthy design feature. The bathroom included a bay window housing a marble countertop with a sink and mirror, flanked by two narrow side windows that provided ample natural light. This arrangement ensured optimal conditions for using the mirror while adding a unique architectural detail to the space.

The house changed ownership twice after it was first listed for sale in 2021. The most recent owner decided to demolish the structure and replace it with a new house. Following the demolition of Lipowczan’s design, the plot was once again put up for sale.

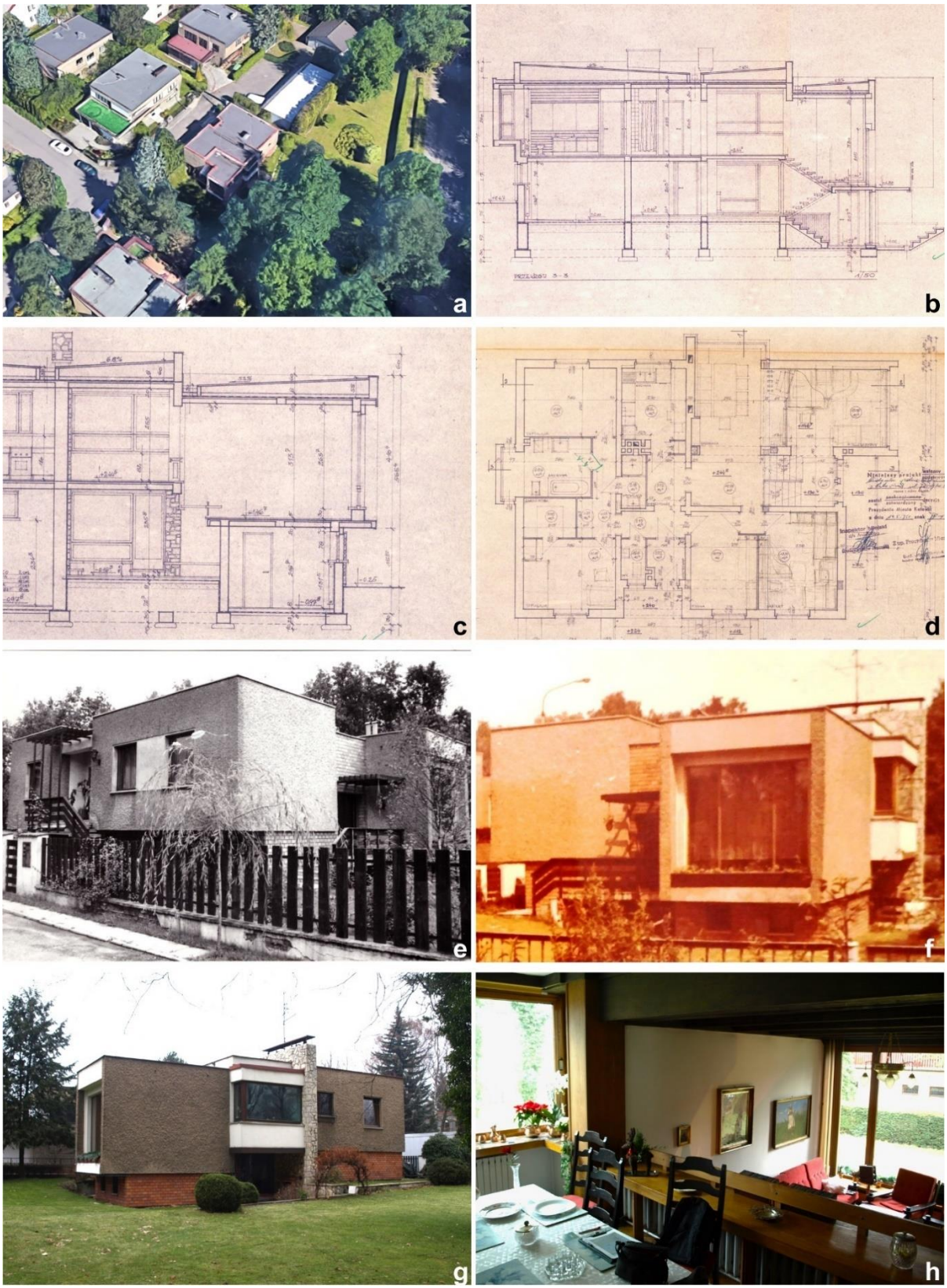

Fig. 62. House designed by Wiktor Lipowczan at 5A Jerzyków Street, Katowice: aerial view with the use of Google Maps [a]; the project documentation [b-d]; photograph from the 1970s [e] and 1980s [f] taken by W. Lipowczan; view from the east garden, 2021 [g]; a view from the dining annex into the living room located half a storey below [h]. Sources: Google Maps; : the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [b-f]; photographs taken by the Author [g-h].

d. Houses with multiple residential stories

This type of building is typically defined as a house comprising at least two residential storeys situated above ground level, with each storey having a clear height exceeding 220 cm.

XXV. ***13 Bukowa Street, Wisła*** *(Mieczysław Król, 1959)*

In 1959, a prominent regional artist and director of the Silesian folk song and dance ensemble approached architect Mieczysław Król with a request to design an individual house. The house was to be built in a picturesque side valley in the town of Wisła, at the foot of Bukowa Mountain. A key requirement from the client was that the house should embody a modern architectural expression.

The completed building, finished in 1963, fulfilled this requirement by presenting a compact yet visually dynamic form. This was achieved through the roof design, which slopes in the opposite direction to the natural incline of the plot. Additionally, the side walls were shaped so that their edges, which enclose loggias on both the ground and first floors, are undercut, enhancing the perception of lightness in the building's overall massing. The two full-height residential storeys rest on a rectangular, box-like base containing the garage. This base is illuminated by narrow, elongated windows, which contrast with the angled profiles of the two upper storeys.

The layout of the residential floors is straightforward. A central hall and staircase serve as the core of the circulation, with the staircase positioned near the exterior wall. On either side of this central zone are the living spaces. On the ground floor, the living room, connected by a wide opening to the study, faces south, offering sweeping views of the valley through large windows. Opposite the hall, the kitchen is situated alongside a small utility room that functions as a storage space and wardrobe. A bathroom is located between the kitchen and the living room.

The layout on the first floor mirrors that of the ground floor. Above the living spaces, two south-facing bedrooms open directly onto a shared loggia, providing expansive views. On the opposite side of the corridor, under the descending roof slope, are lower-ceilinged rooms designated as a laundry and drying room.

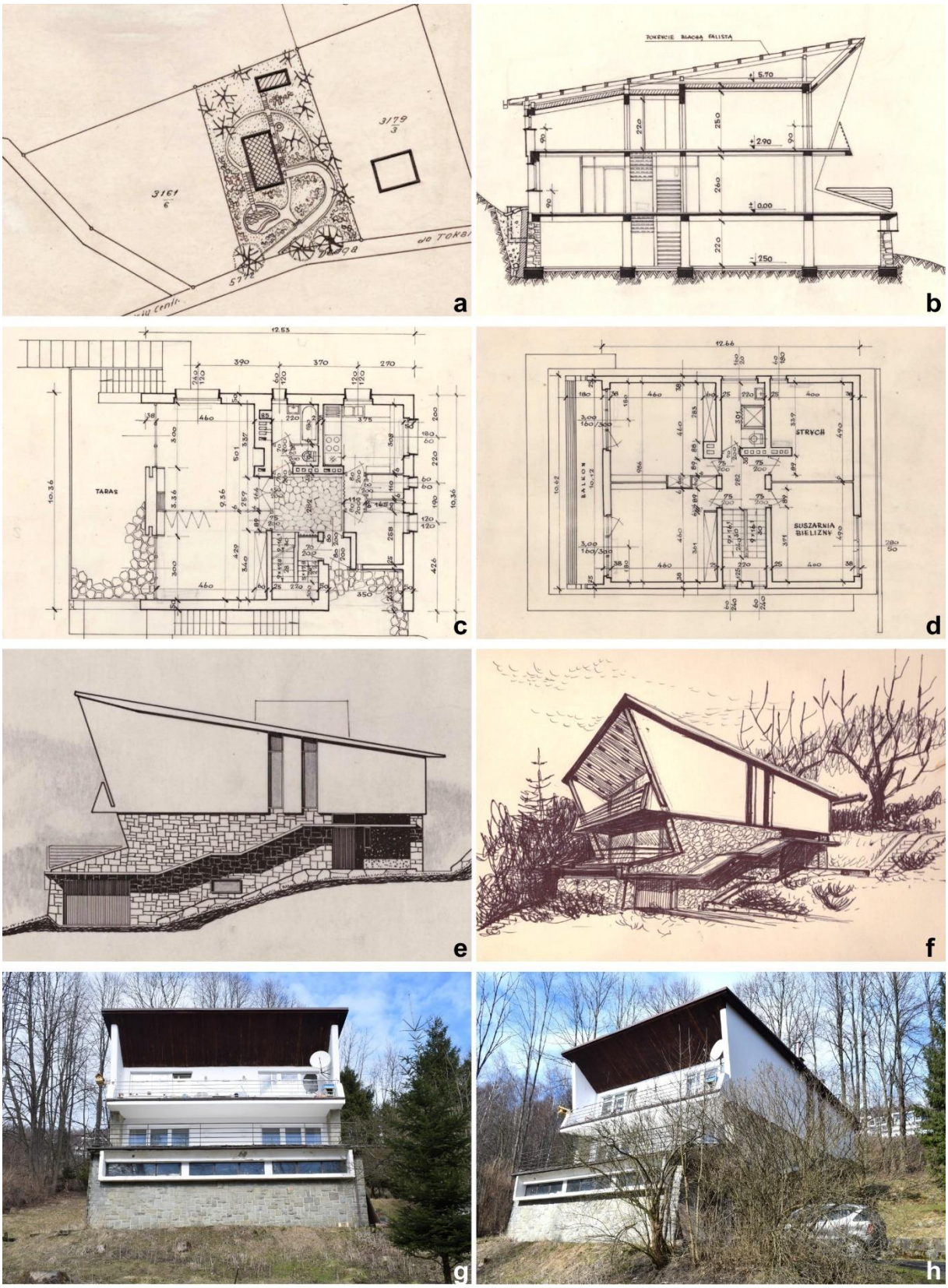

Fig. 63. House designed by Mieczysław Król at 13 Bukowa Street, Katowice: the project documentation, 1959 [a-f]; view from the perspective of Bukowa Street and the south [g], and south-east [h]. Sources: private archies of the home-owners [a-f]; photographs taken by the Author [g-h].

XXVI. ***153 Kościuszki Street, Katowice*** *(Krystian Seibert, 1969)*

Along the busy Kościuszki Street, private single-family homes began to emerge in the early 1950s. The plots are set back from the main road, separated by a strip of municipal greenery. Access to the individual parcels is provided by a narrow service road running parallel to Kościuszki Street, buffered by the green belt. On one of these plots, a three-story single-family house designed by Krystian Seibert for an engineer was completed in the first half of the 1970s.

The lowest floor is modest in height, with a clear ceiling height of less than 220 cm. This level contains a garage, technical rooms with a boiler, and storage space for garden equipment. The main entrance to the house is located on the first floor and is accessed from the gate via a single-flight staircase. The entrance is sheltered from rain and wind by a screen wall spanning between the railing and the balcony located on the floor above.

The spatial arrangement of the two residential floors is similar. At the center of the plan, a spacious hall serves as a hub, providing access to separate rooms. Some rooms are connected by additional doorways, forming an enfilade layout, as is the case with the living room and the adjacent study. Additionally, the living room opens through glass doors into a glazed winter garden that faces westward. The top floor contains four generously sized bedrooms.

Externally, the house stands out not only for its scale but also for the carefully crafted proportions of the façade divisions, skillfully harmonized with the window layouts. Furthermore, the architect incorporated a combination of varied wall textures and a palette of vibrant colors, adding visual interest to the external appearance.

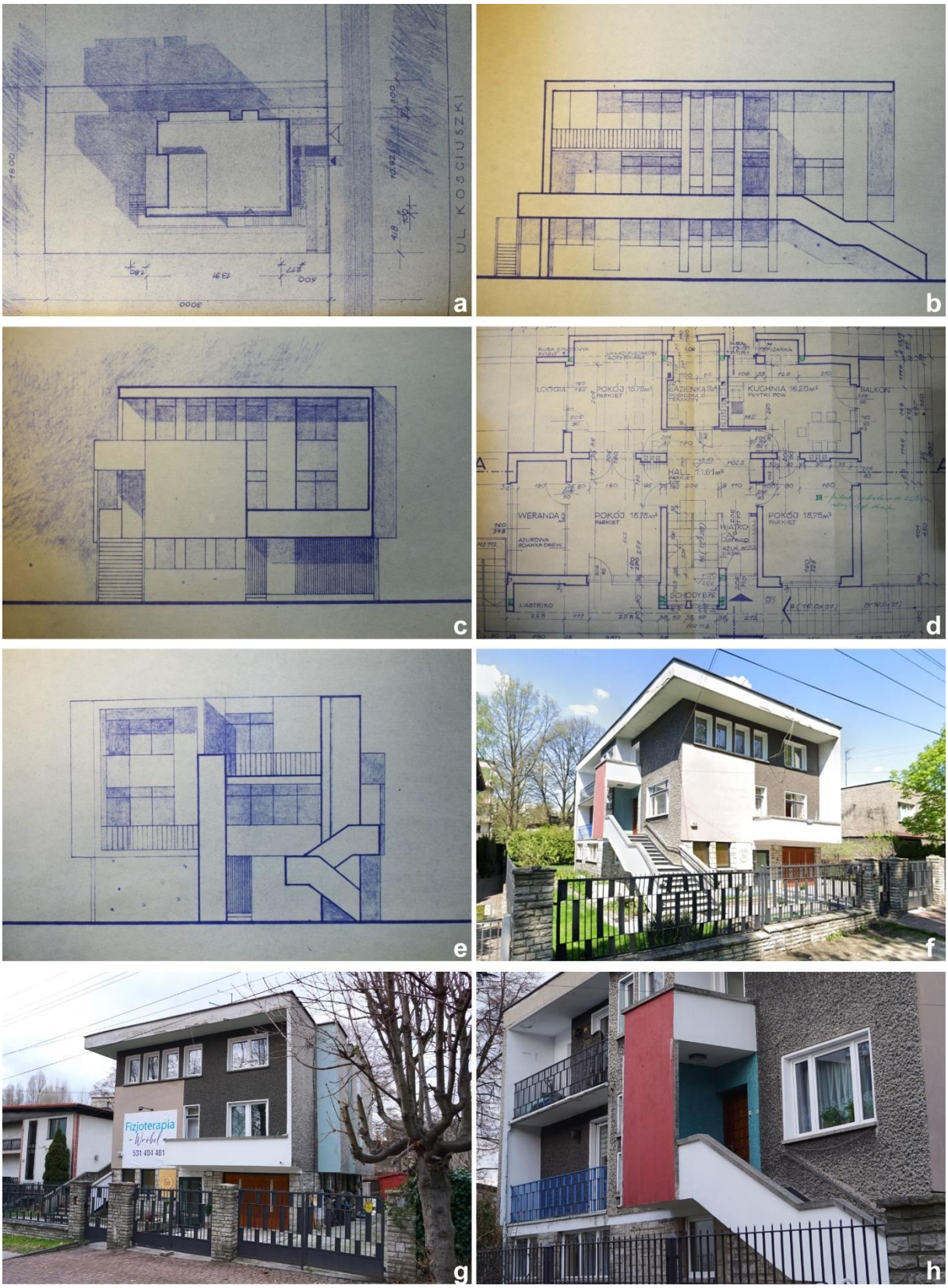

Fig. 64. House designed by Krystian Seibert at 153 Kościuszki Street, Katowice: the project documentation, 1969 [a-e]; views from the perspective of Kościuszki Street, 2023 [f-g]; view on the detail of the entrance zone, 2023 [h]. Sources: the Building Archive of the City of Katowice [a-e]; photographs taken by the Author [f-h].

XXVII. ***4 Sikorek Street, Katowice*** *(Wojciech Pietrzyk, 1969)*

In close proximity to the single-family house designed by Stanisław Kwaśniewicz (No. XVI) and the personal residence of architect Jerzy Gottfried (No. II), a single-family house for a family of entrepreneurs running their own manufacturing business was designed in 1969 by the prominent Kraków-based architect Wojciech Pietrzyk. The relatively large plot, located near the end of a cul-de-sac, allowed for a sense of privacy for its occupants without requiring the house to be set far back from the street. From the street perspective, the house appears inexplicably rotated around its axis. However, a review of the site plan reveals the rationale behind this design choice: ensuring optimal natural lighting conditions for all groups of rooms.

While the house appears to be two stories tall when viewed from the entrance gate, it actually consists of three levels, made possible by the gently sloping terrain. On the lowest level, the architect designed a deep garage capable of accommodating two cars in a linear arrangement. The middle level (ground floor), which includes the main entrance, and the top level are full-height spaces with ceiling heights of approximately 260 cm. The ground floor contains a two-part living room (intended to be divided into a television area and a fireplace area), a dining room, a separate kitchen with a pantry, and an openwork staircase. A notable feature is a custom-designed wall unit that separates the corridor from the living room.

The top floor comprises four bedrooms, a toilet, and an exceptionally large bathroom. Three of the bedrooms have direct access to one of two loggias, which face the garden to the south and west.

From the conceptual phase, the house was meticulously designed in terms of façade treatment. The façade is composed of rectangular volumes with varied proportions and textures, including two types of plaster, natural stone cladding, and wooden façade slats. On the street-facing elevation, an interesting effect is created by juxtaposing the windows illuminating the half-level landings of the staircase with the windows lighting the pantry and bathroom on the full floors, forming a staggered rhythm.

The house remains occupied by the family of the original client, who diligently maintain its integrity and technical condition. In 2019, the restoration of the wooden window joinery was completed.

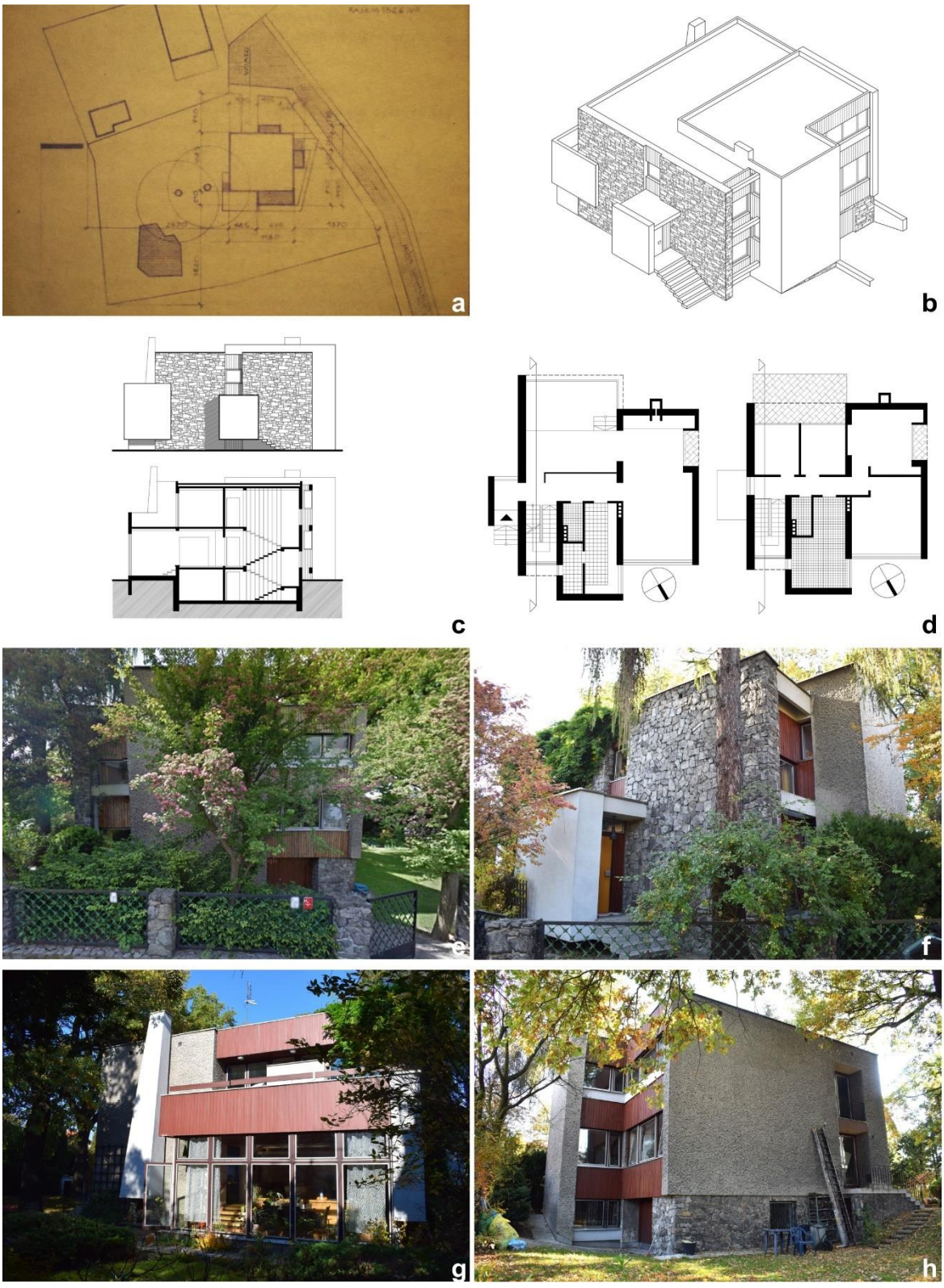

Fig. 65. House designed by Wojciech Pietrzyk at 4 Sikorek Street, Katowice: the project documentation, 1969 [a]; an axonometric drawing of the building form [b]; schematic drawings of the elevations, section, and floor plans of the building [c-d]; view from the perspective of Sikorek Street, 2012 [e]; view from the perspective of Sikorek Street, 2022 [f]; views from the garden side [g-h]. Sources: the private archives of the home-owner [a]; prepared by the Author [b-d]; Google Maps Street View [e]; photographs taken by the Author [f-h].

XXVIII. ***59 Nowokościelna Street, Tychy*** *(Wiktor Lipowczan, 1973)*

On the same street where the house designed by Ewa and Marek Dziekońscy (No. XI) is located, architect Wiktor Lipowczan designed a single-family house with a medical office in 1973 at the request of a physician. The corner plot provided for the project was bordered by streets to the north and east, and by an existing single-family house along the western property line.

Given these initial conditions, the architect designed the house as a two-story rectangular volume attached to the adjacent building. The main entrance is located on the north side, while the garage, situated in the basement, is accessed from the eastern side. The ground floor is divided into two primary functions: a private medical practice with windows facing north onto Nowokościelna Street, and a spacious living area consisting of a living room with a fireplace, a dining room, and a semi-open kitchen. The entrance to the medical practice is located in the foyer, ensuring that patients do not pass through the adjacent hall with the staircase leading to the upper floor, which houses the private residential spaces. Additionally, an internal passage connects the medical practice to the hall, allowing for convenient internal access.

An open staircase is placed adjacent to the massive stone-clad fireplace, which also allows natural light to reach the staircase landing.

The top floor contains four generously sized bedrooms, including one with a dedicated walk-in wardrobe and access to a balcony that wraps around the eastern and southern façades. The eastern façade, featuring a dynamic geometric design framing the balcony, contributes to the building's distinctive external appearance.

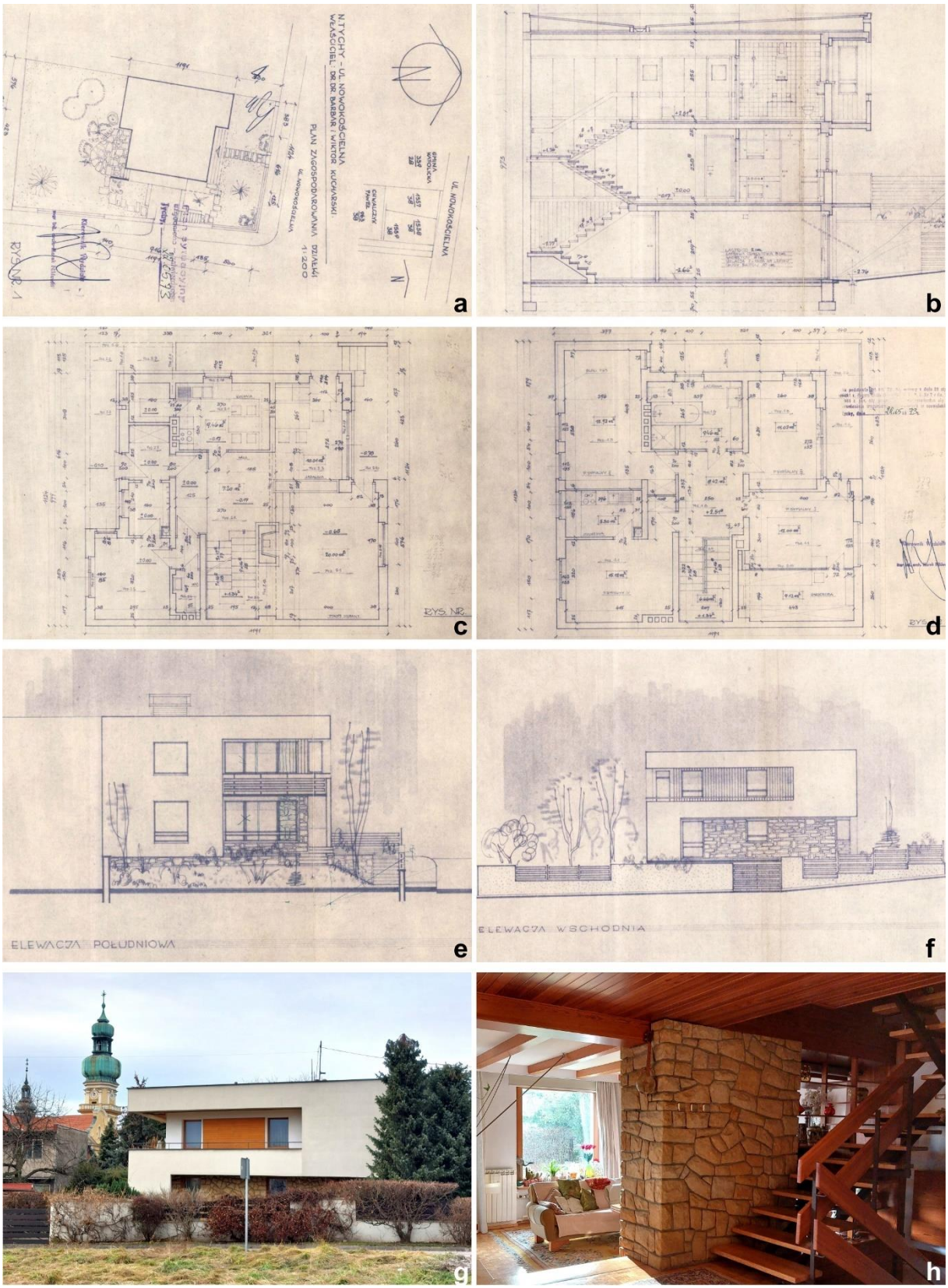

Fig. 66. House designed by Wiktor Lipowczan at 59 Nowokościelna Street, Tychy: the project documentation [a-f]; view from the perspective of Nowokościelna Street [g]; view on the staircase and the living room [h]. Sources: the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [a-f]; photographs taken by the Author [g-h].

XXIX. ***14B Różyckiego Street, Katowice*** *(Henryk Buszko and Aleksander Franta, 1974)*

The single-family house designed for the family of Edward Gierek, the First Secretary of the Polish United Workers' Party (PZPR), constitutes one half of a semi-detached building. The architects behind the project, Henryk Buszko and Aleksander Franta, were also responsible for designing two villas for dignitaries located on Zielona Street in Ustroń (Nos. XI and XIX).

The house is officially registered under Różyckiego Street, although it remains completely out of sight from the road due to its significant setback of over 100 meters. It is accessed via a narrow, inconspicuous driveway hidden between the parcels of two houses constructed in the early 1950s. The property directly borders the Kościuszko Park to the north, providing it with a secluded setting surrounded by mature greenery.

The house is a two-story rectangular volume with a full basement. Its horizontal character—emphasized not only by the proportions of the structure but also by the continuous horizontal window bands—is interrupted by the rhythm of vertical brick-clad planes. The building's form is further diversified by two protruding balconies, one on the north-facing entrance façade and the other on the south-facing garden façade.

The interior layout of both floors is characterized by spacious rooms. On the ground floor, a well-lit living room, illuminated from both the north and south, adjoins a dining room with a south-facing window. The kitchen, separated from the main living areas, is accessible via an additional connecting corridor leading to the expansive main hall. From this hall, a single-flight staircase ascends, naturally lit by a long window positioned at the stairwell.

The upper floor features a large central hall, which can function as a secondary living room, alongside four bedrooms and a spacious bathroom. The design balances functionality and openness, creating a residence well-suited for its intended high-profile occupants.

Fig. 67. House designed by Henryk Buszko and Aleksnader Franta at 14B Różyckiego Street, Katowice: the project documentation [a-d]; views from the perspective of the restricted driveway [e-f]; view from the south [g]; view on the entrance hall [h]. Sources: the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [a-d]; photographs taken by the Author [e-h].

e. Houses with a mixed spatial structure

This type of building is understood as a house that meets at least two of the criteria from the other listed spatial types (a–d).

XXX. ***8A Słowików Street, Katowice*** *(Zbigniew Weber, 1977)*

In the Ptasie Osiedle area, just north of Słowików Street, lies the source of a watercourse that is known further along its route as the Kłodnica River. The stream passes beneath the street through a culvert and flows into a picturesque ravine bordered by sloping embankments. These embankments occupy the space between two rows of plots stretching along streets perpendicular to Słowików Street. According to local residents, the plot on which architect Zbigniew Weber built his private residence in the late 1970s was, as late as 1975, neither designated for construction nor available for purchase or lease. It remained an open, communal green space. How Weber managed to acquire the plot and obtain permission to build his home remains an unsolved mystery.

The resulting building stands out distinctly from the box-like houses characteristic of the surrounding neighborhood. Weber designed a house for himself in which the rooms are distributed across three levels, carefully integrated into the sloping terrain that descends toward the watercourse running through the property. The lowest level, situated below the street and the driveway leading to the garage, contains storage spaces and a spacious studio used by the architect. From the studio, glass terrace doors open onto a covered patio formed by the overhang of the upper floor, located near the flowing stream.

The ground floor includes an entrance hall, garage, and kitchen but is dominated by a living room with a double-height ceiling that extends vertically through two storeys. This space is topped by a roof slope that descends all the way to the floor level of a cantilevered section projecting beyond the building's main footprint. The triangular spaces formed by the sidewalls of this cantilevered section are glazed, providing living room occupants with immersive views of the lush greenery outside, which seems to merge with the interior of the home. The farthest projection of the building houses a balcony accessible from a semi-open dining room.

A single-flight staircase leads to the upper hall and the living room, where the ceiling height is slightly below 220 cm. From the corridor overlooking the living room, access is provided to two bedrooms and a spacious 10 m² bathroom.

Externally, the house captures attention with its juxtaposition of varied formal elements: sloping roof planes contrasted with cubic pylons and rectangular volumes housing rooms with flat ceilings. This dynamic interplay of forms results in a visually engaging and architecturally unique residence.

Fig. 68. House designed by Zbigniew Weber at 8A Słowików Street, Katowice: aerial view with the use of Google Maps [a]; the project documentation [b-d]; views from the perspective of Słowików Street [e-f]; view from the south [g]; a view of the bay window detail cantilevered over the Kłodnica River, as seen in perspective from Słowików Street [h]. Sources: Google Maps [a]; the private archives of the current home-owners [b-d]; photographs taken by the Author [e-h].

The division presented above into five groups based on types—single-storey house, house with an elevated residential storey, split-level house, house with multiple residential stories, and house with a mixed spatial structure—can be represented as a graphical synthesis of the listed types, as shown in the diagram below.

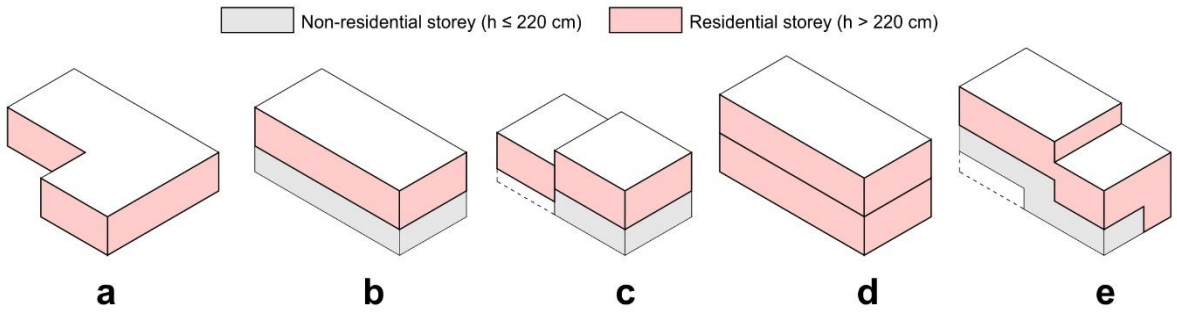

Fig. 69. Diagram of the spatial classification of single-family houses from the PRL period: Single-storey (bungalow) house [a]; House with an elevated residential storey [b]; Split-level house [c]; House with multiple residential stories [d]; House with a mixed spatial structure [e]. Source: prepared by the Author.

5.2. Composition of the building forms

The examined single-family houses can also be distinguished based on their architectural spatial composition. In this aspect, three levels of building form classification were distinguished: the division into independent and adjoining forms; the division into monolithic and additive forms; and the division based on articulation as horizontal, vertical, or diagonal.

Independent and adjoining forms refer to the distinction between whether a single-family house creates a freestanding composition or adjoins an existing building or buildings. An independent form stands alone, separate from other structures, while an adjoining form is attached to or integrated with previously constructed buildings. While most of the examined houses were freestanding, exceptions with an *adjoining form* include the house designed by Wiktor Lipowczan on Nowokościelna Street in Tychy, the house by Stanisław Niemczyk on Zawilców Street in Tychy, and the house by Jerzy Witeczek on Jankego Street in Katowice.

The division of composition into monolithic and additive forms concerns the degree to which a building's mass appears cohesive. A monolithic form is perceived as a single, cohesive mass, giving the impression of being carved from or constructed as one continuous block. In contrast, an additive form is composed of multiple, distinct parts or modules that are visually or structurally combined. In most cases, due to the limited size of building plots, the houses exhibit a monolithic, compact massing. Exceptions include houses on larger plots, often with a more expansive layout. Examples of houses with an additive composition include the residences for General Jerzy Ziętek and Edward Gierek on Zielona Street in Ustroń, designed by Henryk Buszko and Aleksander Franta; the house designed by Jurand Jarecki on Sasanek Street in Szczyrk, characterized by a composition of several volumes set at different levels; and the house by Wiktor Lipowczan on Jerzyków Street in Katowice.

Fig. 70. House designed by Ewa and Marek Dziekoński on Nowokościelna Street in Tychy as an example of monolithic form composition [a]; House designed by Wiktor Lipowczan on Jerzyków Street in Katowice as an example of additive form composition [b]. Sources: photo by the Author [a-b].

The articulation of a building's mass primarily involves characterizing the dominant direction in the composition of its facade. **Horizontal articulation** was typically achieved through contrasting textures or colors in the spandrel bands, the use of strongly defined cornices, or horizontal, flat canopy roofs. Examples of houses with this type of articulation include the house designed by Jurand Jarecki on Wrzosowa Street in Szczyrk, the house by Wiktor Lipowczan on Panewnicka Street in Katowice, and the house by Jerzy Witeczek on Długosza Street in Gliwice. **Vertical articulation** was primarily achieved through strong vertical divisions in the facade, such as a prominent chimney shaft or vertical window frames known as 'fins'. Houses with clearly vertical articulation include those designed by Henryk

Buszko and Aleksander Franta on Różyckiego and Drozdów Streets in Katowice, as well as the house designed by Krystian Seibert on Kościuszki Street in Katowice. **Diagonal articulation** was usually achieved through the dynamic shaping of the roofline, as seen in the house designed by Bożena and Janusz Włodarczyk on Górnośląska Street in Wisła.

Fig. 71. House designed by Wiktor Lipowczan in Poziomkowa Street in Katowice as an example of horizontal form composition [a]; House designed by Bożena and Janusz Włodarczyk on Górnośląska Street in Wisła as an example of diagonal form composition [b]. Sources: photo by the Author [a-b].

It is worth noting that not all of the examined buildings can be clearly assigned to a single classification category. In the case of the house designed by Zbigniew Weber at Słowików Street in Katowice, virtually all of the features discussed above intertwine: the house exhibits a composition that is partially monolithic and partially additive, while elements of vertical form blend with diagonal features.

5.3. Functional classification

As a result of the research on single-family houses, a basic functional classification was established: houses serving exclusively residential functions and houses serving mixed functions—both residential and professional.

- Residential function

Within the first group of houses serving exclusively residential function, we can distinguish examples that contain only a single dwelling unit intended for one household (this type was observed during the research as the most common), as well as examples with two dwelling units, which was permitted under PRL law during the studied period. Such cases often occur in houses functionally designed as multi-generational homes, where the units are connected by an internal passageway. However, this definition also includes cases where the two units may host independent households, each with a separate entrance. Examples of houses with two independent residential units include the house designed by Jurand Jarecki in Szczyrk, located at 8 Sasanek Street, and the house designed by Krystian Seibert in Wisła on Górnośląska Street.

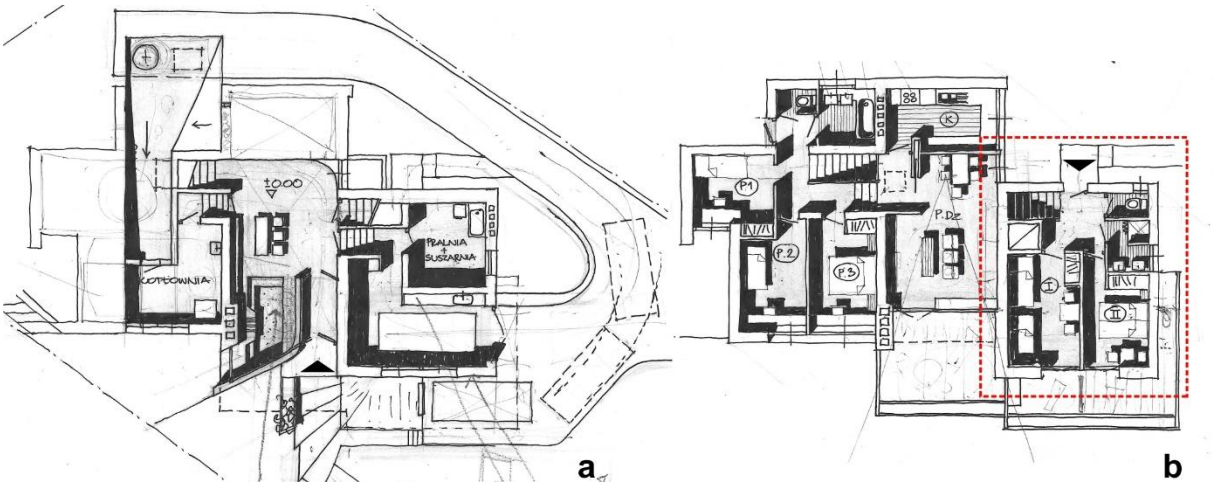

Fig. 72. Conceptual drawing by Jurand Jarecki showing floor plans of a house in Szczyrk containing two independent residential units, 1972. Lower section [a]; Upper section with an additional residential unit marked with a separate entrance [b]. Source: Archive of the Institute of Architectural Documentation, Silesian Library in Katowice.

- Mixed function

The second group of houses represents those with a mixed function. In these houses, in addition to residential spaces, a separate room or group of rooms is designated for professional activities, such as a doctor's office, an architectural or art studio, or a small craft workshop[319]. Such additional professional rooms typically had a separate, independent entrance for patients or clients, while also providing a discreet internal passage for the homeowner from the residential section. Examples of **single-family houses with a separate architectural studio** include Henryk Buszko's house at 4 Czyżyków Street in Katowice and Jerzy Gottfried's house at 8 Słowików Street in Katowice**. Houses containing a doctor's office** include two single-family houses designed by Wiktor Lipowczan: one at 84 Drozdów Street in Katowice and another at 59 Nowokościelna Street in Tychy. On the same street in Tychy, there is also an interesting house for a doctor designed by Ewa and Marek Dziekońscy (31 Nowokościelna Street).

An original example of houses classified as mixed function buildings are two residences designed by Henryk Buszko and Aleksander Franta in Ustroń. The villa of General Jerzy Ziętek (1 Zielona Street) and the neighboring villa of Edward Gierek (2 Zielona Street) served as private homes for these dignitaries and their families, while also functioning as **official residences for hosting delegations and officials.** In the case of General Ziętek's villa, the ground floor served as the formal and representative area, designed as a spacious, glass-walled hall with an alcove for a desk and sofa. In Edward Gierek's villa, the official section with an office was clearly separated from the private area by a waiting room adjacent to the main hall. At the same time, a private passage was provided, connecting Gierek's office with his bedroom in the private section of the villa.

[319] Single-family houses with additional professional rooms, such as doctor's offices or studios, were not permitted to exceed a total usable floor area of 140 m^2 under PRL law.

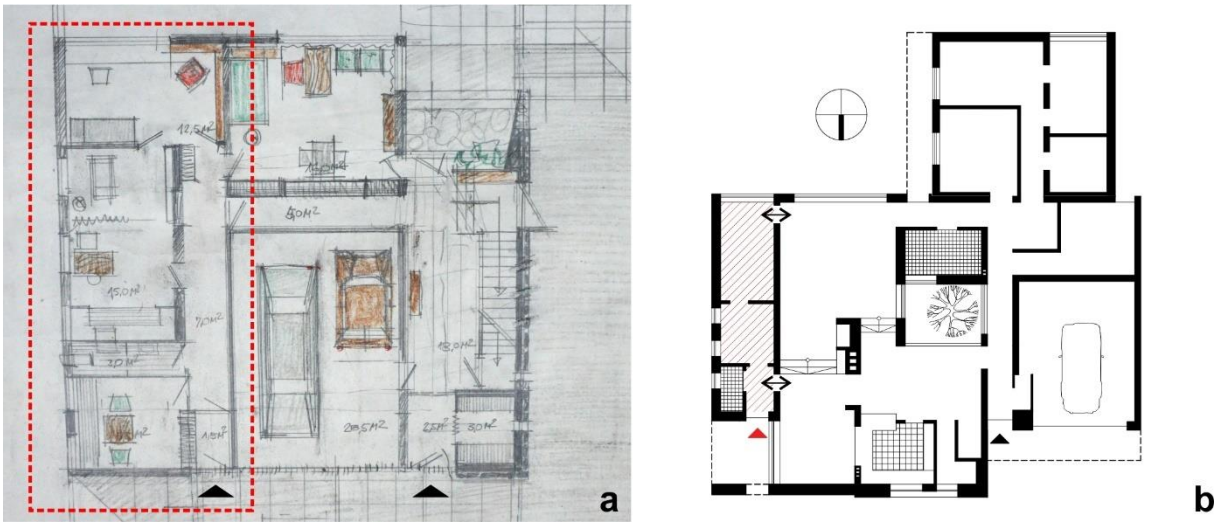

Fig. 73. Conceptual floor plan drawing of the ground floor of the house designed by Ewa and Marek Dziekoński in Tychy, 1969. The proposed medical practise with a separate entrance is marked with a red outline [a]. Floor plan of the house designed by Wiktor Lipowczan on Drozdów Street in Katowice. The medical practice with a separate entrance is highlighted with red hatching [b]. Sources: Private archive of architect Ewa Dziekońska [a]; Prepared by the Author.

5.4. Spatial layout

Based on architectural analyses of the sourced materials, including design documentation and floor plan drawings of single-family houses and *in situ* visits, it was observed that each of the studied buildings can be associated with a particular philosophy of floor plan design.

Starting with the most general classification, we can assess whether the arrangement of rooms follows a closed or open plan. A **closed plan** is defined as a layout where rooms are fully enclosed, forming independent, separated zones. These spaces do not overlap; an observer in one room has no visual contact with other rooms or groups of rooms. The opposite is true for an **open plan**, which is defined as a configuration where the rooms are not fully separated, allowing for direct visual and spatial interaction between adjacent areas, creating overlapping, multifunctional zones.

This distinction is most evident when examining the spatial **relationship between the kitchen and the rest of the house**. In houses classified with a closed plan, the kitchen is usually entirely separated from the living area by a door with access from the living space or even from a corridor. This approach was particularly common in early houses, such as the house on Górnośląska Street in Wisła designed by Krystian Seifert, the house at 13 Bukowa Street in Wisła designed by Mieczysław Król, architect Henryk Buszko's own house at 4 Czyżyków Street in Katowice, and Jerzy Gottfried's own house at 8 Słowików Street in Katowice. Fully enclosed kitchens were also found in the residences of General Jerzy Ziętek and Edward Gierek in Ustroń, designed by Henryk Buszko and Aleksander Franta; however, these cases involved villas where the kitchen was often operated by staff. In Edward Gierek's villa, the kitchen had a separate entrance from the ground level, connecting to a supply storage area and the housekeeper's quarters. In houses with an open plan, the kitchen is often not divided from the living area, with the boundary between the kitchen and living room frequently serving as a dining area. Examples of this interior organization can be found in the single-family house designed by Stanisław Kwaśniewicz at 5 Sikorek Street in Katowice, the house designed by Ludwik Herok on Widok Street in Pierściec near Skoczów, and the house designed by Wiktor Lipowczan at 84 Drozdów Street in Katowice. An intermediate kitchen type, a semi-open design featuring a wide window or door opening with a

sliding partition between the kitchen and living area, was used in several house projects by Jurand Jarecki, including those at 38 Kukułek Street in Katowice, 2 Stroma Street in Sosnowiec, and 8 Sasanek Street in Szczyrk.

Fig. 74. Photographs of examples of houses with open-plan interiors, where circulation areas intersect with the main living space. House designed by Marian Stańco in Bielsko-Biała [a]; House designed by Stanisław Niemczyk in Czechowice-Dziedzice [b]; House designed by Bożena and Janusz Włodarczyk in Wisła [c]. Sources: Photo by the Autor [a-c].

Such comparisons are also applicable when examining the **internal circulation spaces** (such as hallways and corridors) **in relation to the main living area.** Single-family houses with open-plan layouts typically feature partial or complete openings of the hall and corridors (often in the form of galleries or mezzanines) onto the main living area, integrating it as an attractive component of the space. This often includes prominently displayed stairs with exposed flights and landings that enhance the connection to the living room. Examples of such houses with interwoven circulation and living areas include many of Wiktor Lipowczan's projects: the house at 48 Kilińskiego Street in Katowice, the house at 40 Kukułek Street in Katowice, the house at 5c Jerzyków Street in Katowice, and the house at 59 Nowokościelna Street in Tychy. Similar spatial arrangements were applied by Ludwik Herok in his design for the house on Widok Street in Pierściec near Skoczów, Stanisław Niemczyk in a house in Czechowice-Dziedzice, Marian Stańco in a house in Bielsko-Biała, and Bożena and Janusz Włodarczyk in their house on Górnośląska Street in Wisła, where a striking open staircase serves as a prominent feature of the living room.

Another significant criterion, partially encompassing those previously mentioned, is the **relationship between the arrangement of rooms and the internal circulation connecting them**. Based on the analysis conducted during the research, it was observed that the rooms comprising the floor plan typically align into three distinctive configurations: the linear arrangement, the nodal (or point-based) arrangement, and the circulatory arrangement.

- **Linear Arrangement**: Spaces are organized along a single axial communication route (e.g., a corridor). Rooms are often arranged in a sequential line along this axis.
- **Nodal (Point-Based) Arrangement**: This configuration centers spaces around a central point, such as a hall, staircase, or internal atrium.
- **Circulatory Arrangement**: A layout focused on continuous movement, where spaces are arranged to allow free flow between rooms without the need to return to a central point (e.g., an enfilade or an open-plan design).

Examples of floor plans representing the above types are illustrated in the diagram below:

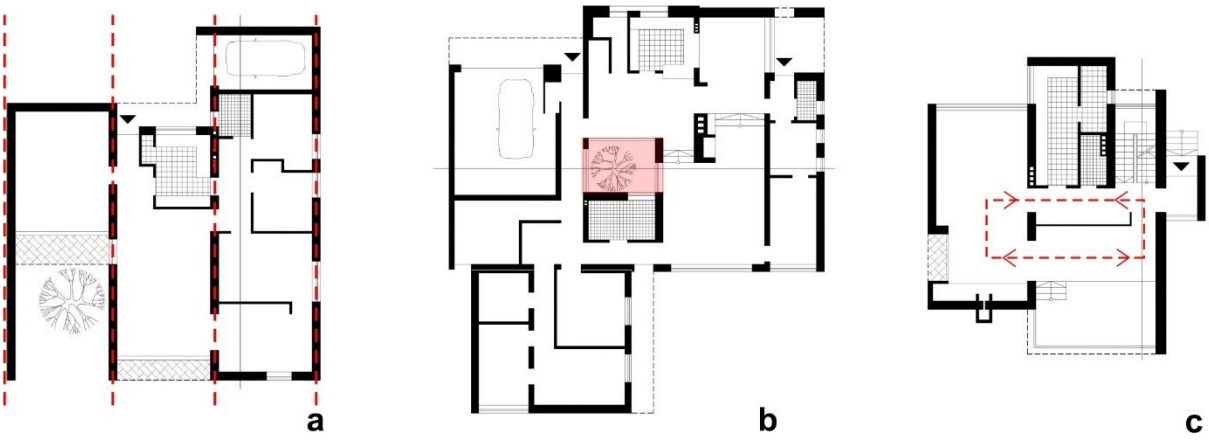

Fig. 75. Example of linear arrangement [a]; Example of nodal (point-based) arrangement [b]; Example of circulatory arrangement [c]. Sources: Prepared by the Author [a-c].

A separate aspect of lighting methods in the context of the spatial layout issue involves **the use of internal courtyards, atriums, and patios**. The distinctions between these three terms are explained in the glossary in Chapter II, point 4. Among the examined houses, an example featuring an internal courtyard enclosed on all four sides and raised to the upper floor level is the house on Zawilców Street in Tychy, designed by Stanisław Niemczyk. In contrast, the house designed by Wiktor Lipowczan at 84 Drozdów Street in Katowice includes an atrium enclosed by a skylight. A designated patio on the second-floor level can be found in the house designed by Ewa and Marek Dziekońscy at Nowokościelna Street in Tychy, as well as in two houses designed by Jerzy Witeczek: one at 4a Długosza Street in Gliwice and another at 178 Jankego Street in Katowice.

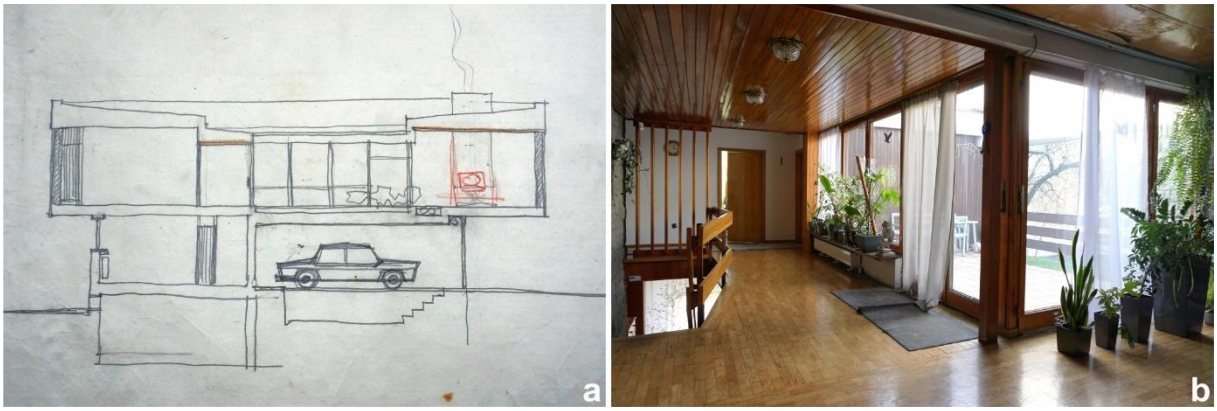

Fig. 76. Single- family house designed by Ewa and Marek Dziekoński on Nowokościelna Street in Tychy: Conceptual sectional drawing showing the semi-enclosed patio on the second floor [a]; View from the living room toward the semi-enclosed patio. Sources: Private archive of Ewa Dziekońska [a]; Photo by the Author [b].

5.5. Interior design

The examined single-family houses can be divided into two groups: those without an interior design plan prepared by the architect and those that included such a plan or specific guidelines. Houses without design guidelines for interiors typically represent the group of homes built with more budget-friendly methods, in a phased, self-managed construction approach. Interior design plans were generally created by architects for wealthier and more demanding clients. Such cases are discussed below.

The interior design documentation consisted of floor plans, sections drawn to precise scale, and, in some cases, additional perspective drawings. Not only were permanent elements, such as the selection of finishing materials, planned, but also the arrangement of specific furniture pieces within the space. These designs were developed by the architects responsible for the entire house project, although, at times—as in the case of the houses designed by Wojciech Pietrzyk in Katowice—they collaborated with visual artists who designed individual decorative elements, such as fireplaces or wall finishes. When designed by artists, these functional elements gained value as works of art: they were often crafted in the private studios of the artists and delivered either as complete pieces or in sections to the house under construction. In the course of research, it was observed that the name Czesław Bąba frequently appeared in the interior design documentation of the examined houses, identified as a visual artist from Katowice.

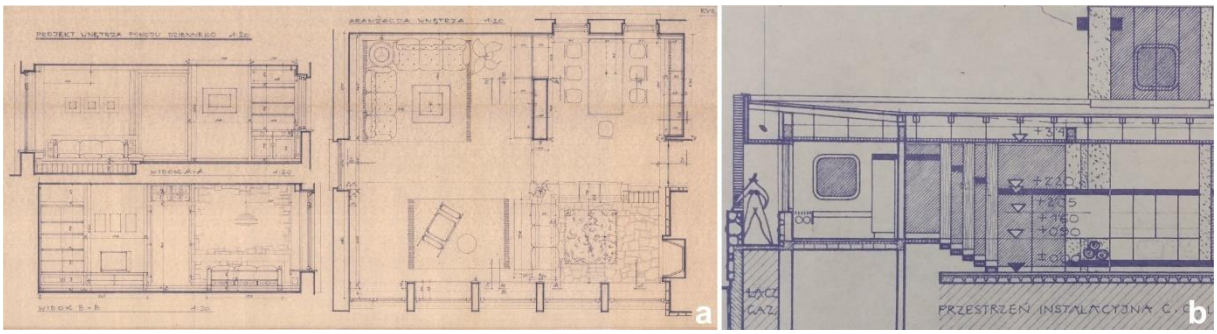

Fig. 77. Detail of an interior design project by Wiktor Lipowczan for a residence on Panewnicka Street in Katowice, 1978 [a]; Detail of an interior design project by Wojciech Pietrzyk for a residence on Morwowa Street in Katowice, 1975 [b]. Sources: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice [a]; Municipal Archive, Katowice City Office [b].

Fireplaces constitute a distinct and intriguing topic. They were designed in nearly every examined house, serving during the studied period a practical function as well: as an additional source of heat. This inspired more elaborate designs, such as freestanding or suspended fireplaces around which people could gather. The second noticeable type of fireplace is the wall-mounted fireplace. These had

the highest artistic potential and could be treated as part of a broader decorative composition on the wall where they were located.

Fig. 78. Photograph of an interior featuring a freestanding fireplace in the house of Edward Gierek, designed by Henryk Buszko and Aleksander Franta on Zielona Street in Ustroń, 1974 [a]; Fireplace designed by an artist Czesław Bąba in a house designed by Wojciech Pietrzyk on Sikorek Street in Katowice [b]. Sources: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice [a]; Photo by the Author [b].

Other elements included in the interior design projects encompassed details such as the design and hardware of door joinery between rooms (especially for doors leading to the representative day areas of the house), integrated elements such as wall units dividing spaces, built-in wardrobes along walls, solutions for concealing hidden passages to closets or bathrooms, as well as the decor of less representative parts of the house in the private zone, such as bathrooms. In some of the houses designed by Wiktor Lipowczan, bathrooms were spacious, well-lit with natural light, and, combined with high-quality finishing materials, created the feel of a comfortable bathing room—a luxury in the context of the Polish People's Republic era.

Fig. 79. Individually designed interiors of selected rooms in the examined single-family houses. House designed by Wojciech Pietrzyk on Sikorek Street in Katowice [a]; House designed by Wiktor Lipowczan on Jerzyków Street in Katowice [b]; House designed by Ewa and Marek Dziekoński on Nowokościelna Street in Tychy [c]; House designed by Marian Stańco in Bielsko-Biała [d]. Sources: Photo by the Author [a-d].

5.6. Finishing materials

An important element influencing the visual perception of the houses is the choice of finishing materials. In the following summary, these materials are divided into exterior finishing materials and interior finishing materials used within the homes.

One of the most prevalent exterior finishes was **plaster**. Various types of plaster were applied to single-family houses, serving as both a protective and decorative layer. Common types included cement-lime plaster, which was highly durable but often plain in appearance, and textured finishes such as ‘baranek’ (a rough, granulated texture resembling small clumps) or ‘kornik’ (featuring irregular grooves, resembling worm trails). These textured plasters provided a distinctive look while helping to mask surface imperfections, and they offered a low-maintenance, resilient surface. In the 1980s, silicate and acrylic plasters began to appear, offering improved weather resistance and a broader palette of textures. **Wood** also played an essential role in PRL-era house design, particularly in cladding and detailing. Decorative wood trims and exterior wood panels were frequently used to accent facades, lending homes a warm, natural character. This application of wood, particularly on entrance walls or around windows, often reflected Scandinavian influences, balancing modern simplicity with organic textures. While wood cladding required maintenance, it was a popular choice due to its accessibility and aesthetic appeal. **Natural stone** was another favored material, adding both texture and color to PRL-era houses. Stone was commonly used in two forms: rough-hewn, creating a rustic look, or as regular geometric slabs arranged in carefully designed compositions on facades and entrance walls. This use of stone, often local varieties, highlighted craftsmanship and gave homes a grounded, enduring quality. Stone cladding served as a durable, visually appealing alternative to brick or plaster, contributing to the period's mix of modernist and regional styles. **Ceramic materials** were also widely utilized, particularly as construction materials. Brick and clinker brick, especially popular from the 1970s onward, became preferred choices for accent walls, garden walls, and structural features. Clinker brick, known for its low porosity and deep color, allowed for refined and lasting surfaces. Ceramic elements often created a contrast with more rugged materials, like stone, adding to the varied, textural quality of facades. Another notable decorative element in some of the single-family houses was the use of **mosaic tiles**. Mosaic designs appeared both on exterior and interior walls, contributing color and intricate patterns that softened the modernist aesthetic typical of the period. Mosaic facades were commonly installed in entryways, on low garden walls, or as accent panels, showcasing craftsmanship and creativity in integrating artistic expression into everyday architecture. These mosaics often featured abstract or geometric patterns, using ceramic or glass tiles to produce a striking visual effect. Another defining material in PRL-era single-family house architecture was **formwork concrete**, expressive aesthetic closely aligned with Brutalism. In Brutalist architecture, which was influential in Europe from the 1960s onward, it offered both structural strength and a bold, unrefined visual quality. The rough, imprinted patterns left by wooden formwork on the surface of the concrete became a defining feature.

Fig. 80. Example of combining ceramic mosaic with the qualities of natural wood in architect Ludwik Herok's house in Pierściec near Skoczów [a]; Example of the use of formwork concrete on the facade of a house designed by Jurand Jarecki in Katowice. [b]; Sources: photo by the Author [a-b].

One of the most common interior materials was **wood**, used extensively for flooring, wall paneling, and built-in furniture. Oak, beech, and pine were popular choices, with oak being particularly valued for its durability and warm, rich tone. Wooden finishes gave interiors a natural warmth, contrasting the more industrial materials often found on exteriors. Additionally, wood paneling was sometimes applied to key walls or around fireplaces, adding texture and a touch of sophistication to living spaces. **Ceramic tiles** were another material in PRL-era interiors, particularly in wet areas such as kitchens and bathrooms. Often arranged in simple grids, these tiles were practical, easy to clean, and moisture-resistant, though their color palette was typically limited to neutral or pastel shades due to production constraints. In the 1970s, bolder ceramic tiles became available, allowing for patterned and textured designs that added visual interest to functional spaces. **Terrazzo** floors were also widespread, particularly in entrance areas, kitchens, and hallways. Terrazzo's mix of stone and cement offered durability and a unique speckled appearance, making it both cost-effective and visually appealing. These floors were well-suited to high-traffic areas and became a recognizable feature of mid-century Polish homes, adding a timeless, understated elegance. **Textured plaster** was frequently used on interior walls, with finishes like 'baranek' and 'kornik' providing a tactile quality and subtle pattern. This textured plaster, sometimes painted in earth tones, not only added depth to interior walls but also helped to disguise minor imperfections, creating a durable, low-maintenance surface. A particularly luxurious material in PRL interiors was **steel** or **aluminum**. Due to their high cost and limited availability, these metals were associated with exclusivity and sophistication, and only a select few could afford their use in the home. Steel and aluminum were most commonly found in the hardware of doors leading to representative rooms—for example, the main entrance to the living room or dining area. High-quality steel or aluminum handles, hinges, and trims provided a striking contrast to the softer wooden elements and underscored the importance of these spaces within the home. These metal accents added a modern, sleek aesthetic, enhancing the overall atmosphere of formality and elegance in spaces designed for receiving guests.

6. Current condition of the surveyed buildings

In the following sections, the preservation condition of the 92 finally selected buildings was analyzed using an established basic classification. However, to ensure the clearest possible presentation, for the purposes of this study, only examples from the previously discussed representative group of 30 houses are described in this section. It should be noted that the documented condition of the examined single-family houses covers the research period from 2020 to 2024. The Author of this dissertation has made considerable efforts to keep the collected information up to date, visiting the designated research locations multiple times throughout this period. However, it is important to recognize that, due to the private status of the architectural heritage under study, the preservation condition is subject to ongoing change. In Section 6.2, the primary identified forms and factors exerting a destructive impact on the buildings under investigation are characterized.

6.1. Assessment of preservation state

The preservation state was categorized as follows: houses preserved in their original state (allowing for minor alterations or losses, with reversible modifications); houses in a state of significant transformation (irreversible modifications); and demolished buildings. Within each category, the houses have been organized according to the spatial classification established in Section 5.1.

a. Original condition with reversible modifications

The first group consists of houses preserved in their original condition, where the spatial layout and room arrangement remain clear, as well as key elements that reflect the use of finishing materials characteristic of the era. This group also includes houses with minimal, reversible modifications—those that, with minor financial investment, could be restored to their original state. An example of such a situation includes stone or wooden wall finishes that have simply been repainted.

Among the **single-storey bungalow-type houses** examined, only 3 are currently (2024) in their original state of preservation. The first is the personal residence of architect Jerzy Gottfried at 11 Słowików Street in Katowice. Unoccupied since 2017, the structure remains materially original (no alterations have been made since its completion in the early 1960s); however, the building is gradually deteriorating, with visible moisture issues, particularly at the junction of the building and its foundations. In 2021, the current owner installed waterproofing at the foundations, yet due to financial constraints, no further maintenance has been carried out. A different case is the single-story house designed by Wiktor Lipowczan at 84 Drozdów Street in Katowice, which remains occupied by the original investor’s family. They maintain its technical condition while preserving the original finishing materials. Another bungalow-style house designed by Wiktor Lipowczan is located at 290 Panewnicka Street in Katowice. Unoccupied since 2023, however field visits confirmed that both the spatial structure and the finishing materials of the house have remained unchanged since its construction.

Among the examined **houses with an elevated residential storey**, 6 were found to be in their original state. In excellent condition is a house designed by Wiktor Lipowczan early in his career in single-family residential design, located on Kilińskiego Street in Katowice. It is inhabited by relatives of the original client, who carefully maintain the house's integrity, precisely replicating elements whenever replacements are necessary. A similar situation applies to another house designed by Lipowczan on Poziomkowa Street in Katowice, where the only noticeable alteration is the replacement of the garage doors with a roller shutter, which slightly affects the building’s overall visual impact. Another minor, easily reversible modification was made in 2021 to a house designed by Jurand Jarecki on Kukułek Street in Katowice, where a garden pergola visible from the street was added. However,

other features, including the spatial integrity, facade composition, and finishing elements, remain in their original state. The owner, the original client's son, diligently maintains the property's technical condition. In contrast, a house designed by Ewa and Marek Dziekoński on Nowokościelna Street in Tychy changed ownership in 2015, though the new owner is aware of the building's architectural quality and significance. The only less fortunate intervention is the repainting of wooden facade slats in the entrance area, a reversible modification. Certain alterations to the house designed by Jerzy Witeczek on Jankego Street in Katowice, specifically enclosing the upper-level patio with a roof and light walls, also fall into the category of easily reversible changes. A well-preserved example both inside and out is the house designed by Stanisław Niemczyk on Zawilców Street in Tychy. It is still occupied by the original client and their family, who, recognizing its association with a renowned architect, have preserved the structure's integrity and original materials, even during partial renovations undertaken since 2022.

In the category of **Split-level Houses**, 5 buildings were classified as being in their original state of preservation. In the case of architect Ludwik Herok's personal residence on Widok Street in Pierściec near Skoczów, no changes have been made since its construction in the 1960s, thus both the spatial layout and finishing materials, as well as the built-in household appliances, remain original. Notably, and exceptionally rare today, the large glass panels are also original, affecting the thermal comfort of the occupants. A similar situation exists with the house designed by Marian Stańco in Bielsko-Biała, where the level of preservation of original materials is high; moreover, the interior oak wood finishes are aesthetically well-designed. Only part of the facade's color scheme has been altered, but an interview with the current owner revealed that this change occurred relatively early, in the 1980s, with the architect's consent. Another house highly rated in terms of preservation is the residence designed by Bożena and Janusz Włodarczyk. Although some window frames were replaced due to thermal concerns and strong winds, the owners ensured that the replacements closely matched the original Włodarczyks' design. Another example of a house in original condition is the residence designed by Wiktor Lipowczan on Uzdrowiskowa Street in Ustroń. Until 2021, the house was owned by the architect's widow, who took great care to preserve the original finishing materials in the best possible condition. A unique case is the former villa of General Jerzy Ziętek in Ustroń, designed by Henryk Buszko and Aleksander Franta, and one of the few buildings identified in the research as being managed by an institution—in this case, the Association of Polish Architects. The Association, in line with its mission, makes efforts to preserve the integrity of this valuable structure. However, a lack of funds for comprehensive conservation has led to a gradual deterioration in the building's technical condition, although this is closely monitored, and any issues requiring urgent intervention are addressed as needed.

Among the examined houses classified as **Houses with multiple residential stories**, field research and site inspections identified 4 in their original state. The house designed by Krystian Seibert on Kościuszki Street in Katowice remains unchanged in terms of room layout and original finishing materials, with the only modifications being the addition of banners and signs advertising a business conducted within. An exemplary case of preservation is the house designed by Wojciech Pietrzyk on Sikorek Street in Katowice. The current owner, a close relative of the original client, is fully aware of the house's uniqueness, particularly its advanced architectural solutions for its time. Functional and aesthetic elements, both inside and outside, are meticulously restored rather than replaced. Similarly, the house designed by Wiktor Lipowczan on Nowokościelna Street in Tychy can be considered to be in original condition, with only the windows having been replaced. However, the new windows were selected to match the original muntin divisions specified by Lipowczan. The final example is the house originally designed for Edward Gierek on Różyckiego Street in Katowice by Henryk Buszko and

Aleksander Franta[320]. The current owner maintains the building carefully, preserving both the technical integrity and the originality of interior and exterior materials. Notably, as the house was designed as a dual segment, it should be mentioned that the second segment has undergone more extensive modifications, including the addition of an extra wing with a glassed-in conservatory.

At the end of the review a group of houses preserved in their original state, it is worth mentioning the only house within this study classified as a **House with a Mixed Spatial Structure**. The personal residence of architect Zbigniew Weber on Słowików Street in Katowice was purchased a decade ago by a new owner who is not related to the original client and architect. In an interview, however, the owner emphasized that the primary reason for purchasing this house was its unique atmosphere and architectural solutions, which he considered remarkable for the period of its construction in the Polish People's Republic. Consequently, the owner is committed to preventing any irreversible modifications to the house: in 2023, he replaced one of the long windows on the upper floor, commissioning a custom design to closely resemble the original one designed by Weber.

b. Significant transformation with irreversible modifications

The second group includes houses that have undergone significant transformations, understood as irreversible modifications that would be challenging and costly to reverse in any attempt to restore the building to its original state. Examples of such changes include additions or extensions to the building, alterations to the type and structure of the roof, or changes to the room layout.

Field research revealed that among the **single-storey bungalow-type houses**, 3 were found to be in a state of significant transformation. The personal residence of architect Henryk Buszko on Czyżyków Street in Katowice was unoccupied from 2014 to 2022. When this situation changed, it became clear that the new owner had not purchased the house for residential purposes but to conduct business operations, initiating transformations primarily within the interior: many partition walls were removed, and some of the original window frames were replaced. At present, these changes are not highly visible from the outside; however, an interview with the owner indicated that, for financial reasons, he is considering demolishing the house to replace it with a more economical building. A significantly altered example from the exterior is the house designed by Jurand Jarecki on Wrzosowa Street in Szczyrk. None of the original facade materials remain, and all window frames have been replaced. Additionally, field observations revealed the house to be in poor technical condition, with numerous wall cracks and moisture damage visible near the flat roof and terrace. Lastly, the architectural value of the original structure designed by Wojciech Pietrzyk on Morwowa Street in Katowice has suffered drastic harm due to a transformation nearly two decades ago to accommodate a business function. Comparing the current building with Pietrzyk's original design documentation makes it almost unrecognizable. The house has been expanded both vertically and horizontally, distorting its proportions, and none of the original facade materials remain. The only identifiable original element is a section of the brick fence, recognizable by its characteristic arrangement of stone blocks.

Among the houses representing the type of **houses with an elevated residential storey**, 2 have undergone significant transformations. The first is the former villa of Edward Gierek in Ustroń at 2 Zielona Street, designed by Henryk Buszko and Aleksander Franta. The current owner, a relative of

[320] This was the second house designed for Edward Gierek, following the one also created by Henryk Buszko and Aleksander Franta in Ustroń at 2 Zielona Street.

Edward Gierek, converted the house into an aesthetic medicine clinic many years ago, which significantly altered the interior spatial layout. Numerous exterior modifications were also introduced, beginning in the early 2000s: large glass panels in the main hall and vestibule were replaced with smaller windows, allowing light to enter through glass blocks. The second transformed house is the house designed by Jerzy Witeczek on Długosza Street in Gliwice. In the case of this house as well, the degree of wall glazing has been significantly reduced in recent years by bricking up the large windows that originally illuminated the spacious entrance hall. The facade was also altered: the owner removed the original brutalist cladding panels on the upper storey, changing its appearance.

Three houses representing the **Split-Level House** category among those examined during field research exhibit a high degree of transformation from their original structure. One such house is the residence designed by Krystian Seibert on Górnośląska Street in Wisła. Assessing its preservation state was challenging, as the house was originally designed as a dual-segment dwelling for two generations, containing two independent units. The upper segment has undergone substantial changes, including the addition of a floor with a sloped roof, concealment of the original facade design, and modifications to the internal structure through partial wall removal. In contrast, the lower segment, still occupied by the original client, remains in its original condition both inside and out. However, due to the irreversible loss of the house's original proportions, it was classified as significantly transformed. Two further examples of significantly altered houses are those designed by Jurand Jarecki: one on Sasanek Street in Szczyrk and another on Stroma Street in Sosnowiec. In the case of the house in Szczyrk, all segments were extended with a pitched roof, the windows were replaced, and the original reinforced concrete terrace railings were removed. In Sosnowiec, the process of transforming the house progressed in stages. When the Author of this dissertation visited the house for the first time in 2022, only the window frames had been replaced. However, a visit in 2024 revealed further changes: the walls had been insulated in such a way that the brick facade was covered, and the original railing was removed. The most extensive changes were made to the interior layout, including relocating the kitchen and bathroom facilities.

Fig. 81. Photographs of the exterior view of the same split-level house designed by Jurand Jarecki on Stroma Street in Sosnowiec: in 2022 [a]; in 2024 [b]. Sources: photos by the Author.

The classification of houses based on their preservation state resulted in no **houses with multiple residential storeys** being assigned to the group of buildings evaluated as significantly transformed.

c. Demolished buildings and factors of destruction

The final group in this classification consists of examples of examined buildings that have been demolished.

The field research and visits to dozens of houses, combined with interviews conducted with their residents, have enabled the identification of key factors contributing to the deterioration of this architectural heritage. The first factor identified is the lack of sufficient thermal insulation in houses from the period under study. Both the exterior walls and the overhanging floors supporting living spaces were either poorly insulated or left entirely without insulation. This issue stemmed from the building technologies available at the time, as well as the limited availability of construction and insulation materials. Additionally, the window and door joinery, typically made of wood, did not provide an effective thermal barrier. The second factor involves a frequent lack of adaptation by architects to the specific climatic conditions of each location, especially for houses situated in mountainous areas. In these cases, the use of flat roofs and uninsulated roof slabs raised legitimate concerns about the risk of collapse under heavy snow loads. The third factor is the vulnerability of these houses to the changing aesthetic preferences of their owners, who often follow what they perceive as prevailing trends, such as the postmodernism wave at the turn of the 1980s and 1990s or later trends that favor homes styled as traditional Polish manors. Due to the strictly private nature of these buildings, homeowners have full discretion over remodeling or even demolishing them. A fourth factor affecting some of the studied houses is the high value of the land on which they are situated. There have been cases where buyers showed interest in these properties not for their utility or architectural qualities but purely for the location, seeing an opportunity for profit, for example, through resale of the plot.

Fig. 82. Own house designed by Wiktor Lipowczan at 31 Drozdów Street in Katowice: Archival photograph taken by Halina Lipowczan, 1976 [a]; Photograph of the house during its demolition in 2012 [b]. Sources: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice [a]; Google Maps Street View, 2012 preview [b].

It is worth noting that one particularly interesting example was demolished during the course of the research described in this dissertation, allowing the author to directly observe this phenomenon of disappearing heritage. In 2012, following its purchase from the widow of architect Wiktor Lipowczan, Lipowczan's own house on Drozdów Street in Katowice, an example of a **house with an elevated residential storey**, was demolished. Two years later, a new cubic-style house with extensive glazing was completed on the site. During the research conducted by the author of this dissertation, another significant house was demolished in 2022: an interesting example of a **split-level house** on Jerzyków Street in Katowice, which the author had the opportunity to visit twice and discuss with the then-owner and original client. This was the second house designed by Wiktor Lipowczan within the same single-family housing estate to be demolished. The Jerzyków Street house was distinguished by one of the best layouts in an open-plan style, where the living room and dining area blended seamlessly with the prominent staircase. The site has since been cleared, with the plot leveled and foundations poured for

a new house by the current owner. However, as of 2024, the property in this state has been listed for sale.

Fig. 83. The house designed by Wiktor Lipowczan on Jerzyków Street in Katowice shortly before demolition. [a-b]. Source: photos by the Author, 2022.

7. Unbuilt houses

In the course of archival research, site visits, and interviews with architects, a set of private single-family house projects was discovered that, though never constructed, remain preserved as architectural concepts on paper. In terms of this study, these unbuilt projects offer significant insight into the creative scope of architects active in the region. The selected unbuilt designs were organized by architect, with each project discussed chronologically by its design date, enhancing the overall picture of the architectural potential present during this period.

The archival collection of architect Stanisław Kwaśniewicz includes several preliminary concepts for single-family houses, drawn on tracing paper[321]. One of these is a 1957 architectural concept for a dentist. The house was intended to be located in the Brynów district of Katowice; however, the exact location of the building plot is unknown due to the absence of a preserved site plan. Particularly intriguing is the rounded form of the structure, reminiscent of the organic architectural style. Also noteworthy is the planned geometric composition of the window divisions on the northern facade.

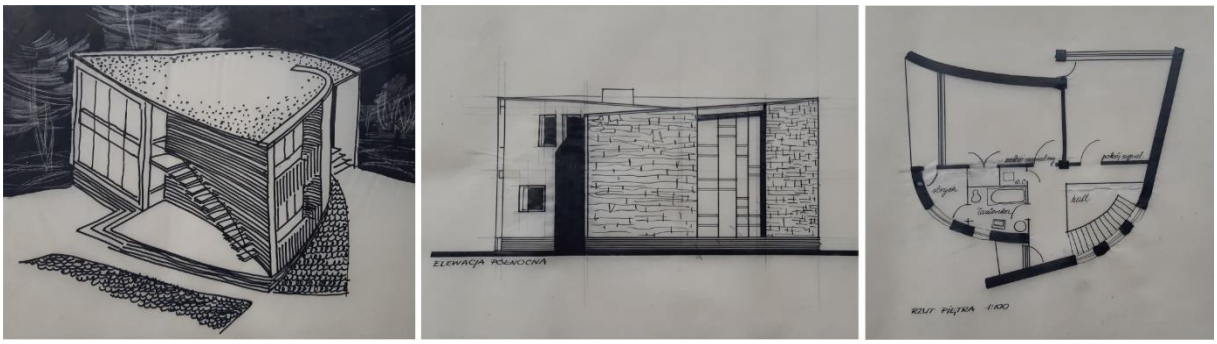

Fig. 84. Conceptual drawings of a single-family house in Katowice-Brynów by Stanisław Kwaśniewicz, 1957. Source: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice.

Within the extensive collection of architectural legacies left by architects Henryk Buszko and Aleksander Franta, a previously unknown concept for a single-family house in the Jaszowiec Valley in Ustroń was discovered[322]. The house featured an intriguing design, with triangular-shaped side wall elevations intended to be clad in local stone. It was planned for an unspecified painter, with the functional program including both a residential area and an artist's studio. Notably, the design of the side walls is similar to that of the hotel for the Polish Teachers' Union, also designed by Buszko and Franta in the same Jaszowiec Valley.

[321] The collection of Stanisław Kwaśniewicz's designs is held in the Archive of the Institute of Architecture Documentation, Silesian Library in Katowice.
[322] The collection of Henryk Buszko and Aleksander Franta's designs is held in the Archive of the Institute of Architecture Documentation, Silesian Library in Katowice.

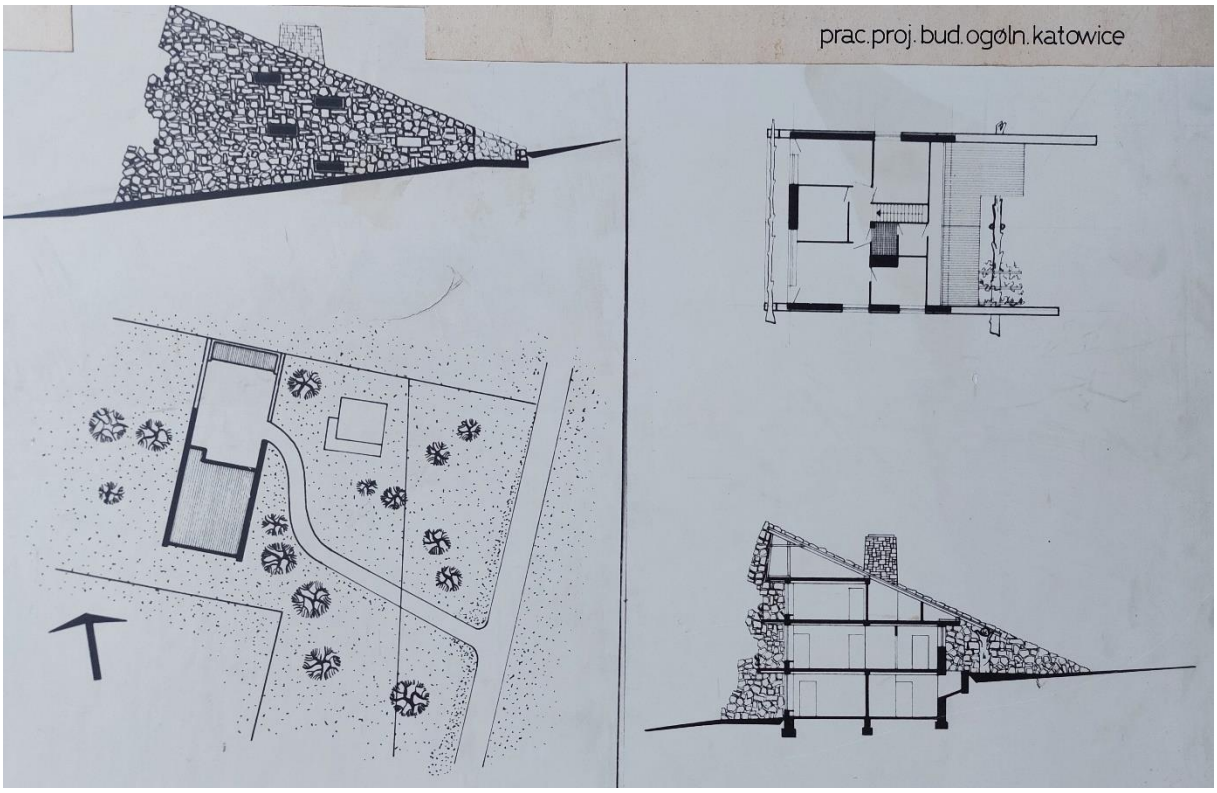

Fig. 85. Conceptual drawings of a single-family house in Ustroń–Jaszowiec by Henryk Buszko and Aleksander Franta, 1959. Sources: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice.

During the search for single-family house designs in the family archive of Mieczysław Król, several architectural concepts for single-family homes intended for construction in the Silesian Beskids region were uncovered. Unfortunately, the exact towns were not specified on the drawings; however, additional notes found on loose sheets suggest that the designs were intended for areas near Żywiec and Korbielów in the Silesian Voivodeship. Below are drawings of two houses from 1961 and 1966. It is interesting to compare the design approach between these two examples planned for similar mountainous locations. The earlier concept draws on the proportions and roof shape of traditional Beskid houses, while the later design presents an avant-garde response to the theme. Particularly notable in the latter is the composition of windows on the building's side wall, which illuminate the staircase.

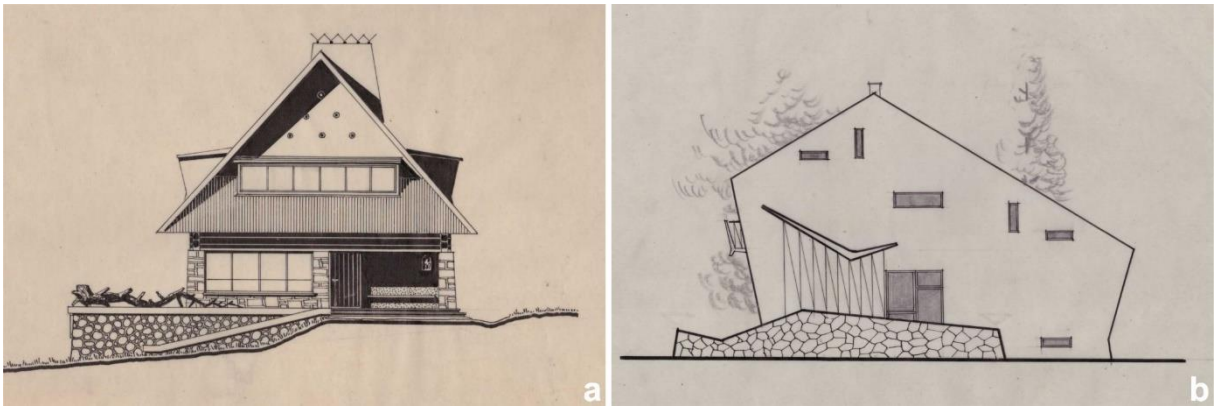

Fig. 86. Elevation drawings of two single-family houses designed by Mieczysław Król in the Silesian Beskids: 1961 [a]; 1966 [b]. Sources: Family archive of Rafał Król.

In the archives of Upper Silesian architects, one can occasionally find conceptual designs intended for international locations. An intriguing concept for a single-family house was discovered in the archive of architect Ewa Dziekońska, designed in the late 1960s in collaboration with Marek Dziekoński. This house was intended to be located in a seaside resort in Italy. Unfortunately, information about the exact location has not been preserved, and during an interview, Ewa Dziekońska was unable to recall it.

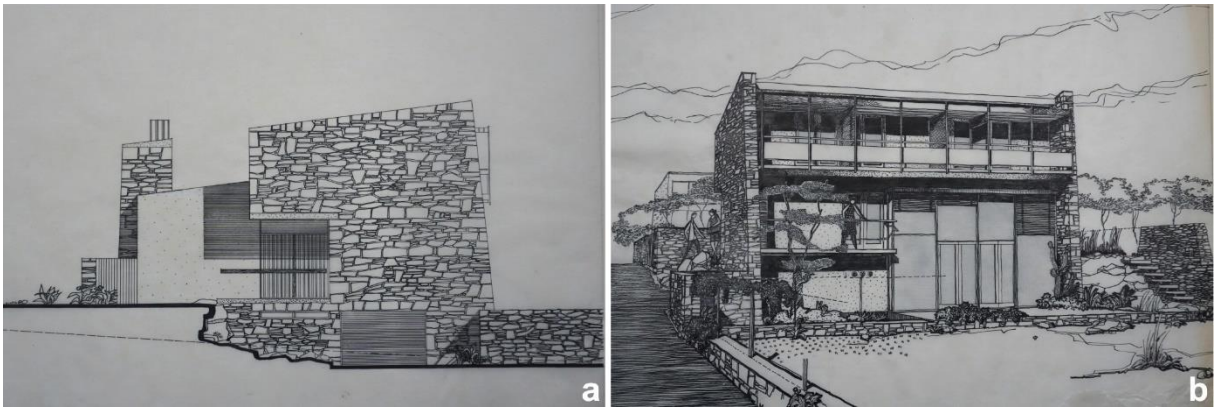

Fig. 87. Elevation drawings of an architectural concept for a single-family house in Italy by Ewa and Marek Dziekoński, location unknown, 1968. Sources: Private archive of architect Ewa Dziekońska.

The collection of architectural materials by Jurand Jarecki also includes several conceptual designs from his one-year professional stay in Oran, Algeria. Among them is an architectural concept for a single-family house, developed in two spatial and aesthetic variants. Noteworthy in both variants is the original, sculptural design of the core housing the staircase, which was intended to lead up to a rooftop terrace. Jarecki recalled that this house was intended to meet the design needs of a director at the company where he was employed. He was asked to create a concept for the house, which, unfortunately, was never built according to either variant.

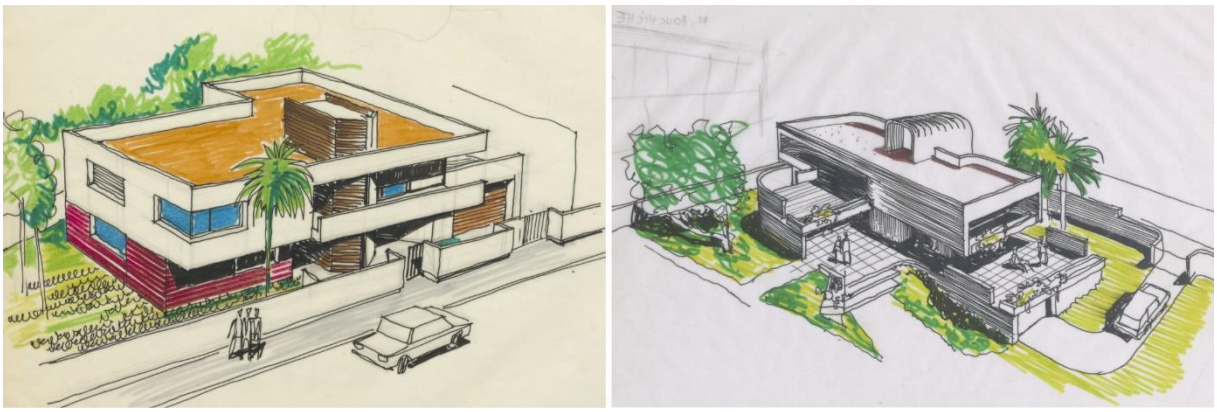

Fig. 88. Conceptual drawings of two design variants for a single-family house in Oran, Algeria, by Jurand Jarecki, 1978. Source: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice.

8. Valorisation

The evaluation of single-family houses from the PRL period was based on an analysis of the examined properties in terms of their scientific, architectural, and cultural value. The selection of these specific values was guided by the character of this type of housing, which, due to its strictly private nature, limits certain values to the users alone—namely, the residents—and its impact on the surrounding environment remains relatively limited. Consequently, values such as emotional or landscape significance were not included in the following discussion.

8.1. Scientific value

The primary scientific value of the examined architectural heritage lies in the introduction of new knowledge and the filling of a notable gap in the research on Polish architecture of the second half of the 20th century. The nearly one hundred properties studied had never been previously described or published, with only a few exceptions, such as the Villa of General Jerzy Ziętek in Ustroń and the house designed by Jurand Jarecki on Kukułek Street in Katowice. These properties have been intellectually "discovered" and documented for the first time. This also applies to the architects of the houses studied: in addition to a group of recognizable names whose work has been documented, the research has brought to light previously lesser-known architects and their creative contributions.

Several architects deserve special attention as examples of the scientific value of this research and its subject. At the start of this project, the name of architect Wiktor Lipowczan appeared only in a few publications describing the spatial development of Katowice, as he had served for many years as a city and provincial planner. Through this research, more than a dozen of his single-family houses were identified, each standing out at first glance for the originality of their architectural solutions. Detailed research only confirmed this initial impression. Interviews with the owners of his houses and with the architect's widow revealed that in the 1970s, Lipowczan was highly regarded in Katowice and the surrounding region as a sought-after designer of individually commissioned single-family homes.

Another notable case is the discovery of previously unidentified and undocumented houses designed by Wojciech Pietrzyk in the Silesian Voivodeship, a finding of significant importance to the field. Architect Pietrzyk is recognized throughout Poland for his iconic designs for both public buildings (e.g., the church in Nowa Huta, Kraków) and private residences, such as the well-known villa for Zbigniew Loreth in Wola Justowska, Kraków, and the house for Dr. Książek in Tarnów. Until now, Pietrzyk had been associated solely with projects in the Małopolska region; the discovery of two noteworthy single-family homes in Katowice represents a breakthrough in the understanding of this architect's work.

8.2. Architectural value

The architectural values of the examined buildings can be considered from two perspectives. The first is the recognition and classification of spatial types of single-family houses built on individual commission during the Polish People's Republic period. As the research has shown, some of these types are innovative within the history of Polish architecture and are closely linked to the constraints imposed by top-down regulations. Examples of such spatial arrangements include houses with an elevated residential storey and the split-level house.

The second aspect of architectural value lies in the conclusions drawn from comparative analyses between the group of several dozen examined buildings and well-known examples from both Poland and abroad, representing various stylistic trends. By comparing the examined examples, particularly

with this latter global group, it becomes evident that some of the houses align with global architectural trends of the second half of the 20th century, or at least their designers drew inspiration from them. This includes movements such as *mid-century style* (e.g., the house in Pierściec designed by Ludwik Herok), the *International Style* (e.g., Edward Gierek's villa in Ustroń), and *Brutalism* (e.g., the house on Kukułek Street designed by Jurand Jarecki).

8.3. Cultural value

The architecture of single-family houses from the latter half of the 20th century offers significant insight into the aspirations and social standing of the segment of society that commissioned these designs. This insight reflects their tastes, ambitions, and attitudes toward the architectural profession and the expertise of architects.

Primarily, these houses reveal a growing appreciation for personalized, unique spaces that diverge from traditional, standardized designs. The decision to commission an architect indicated a desire to project individuality, taste, and cultural sophistication, with owners seeking homes that embodied aesthetic ideals rather than purely functional forms. This choice illustrates a trust in professional expertise and a recognition of architecture as an art form, as clients demonstrated an appreciation for innovative design and the cultural capital that custom-designed house conferred. Furthermore, engaging with prominent architects of the time reflects these clients' alignment with progressive social attitudes, such as openness to modern materials, techniques and as well novel spatial solutions like open-plan layouts and flexible spaces. These features were associated with modern, forward-thinking lifestyles. In essence, these houses reveal the ambition to transcend conventional housing norms, reflecting a segment of society that valued individuality, cultural engagement, and high social status.

9. Conclusion of the Detailed Research part

The conducted Detailed Research part comprised eight main components. It began with a synthesis of information, leading to a characterization of the Silesian Voivodeship during the Polish People's Republic period, along with an analysis of the context of professional activity among architects and the regional architectural scene in the Silesian Voivodeship during this era, concluding with the selection of key architects. Subsequently, the final sample of examined architects (16) and buildings (92) was approved, based on the expanded knowledge obtained during field studies. The next component involved classifying the collected houses according to their location. Following this, a spatial classification of a selected representative group of 30 buildings was conducted, serving as the basis for a series of architectural analyses. Based on supplementary field studies and architectural analyses, an assessment of their preservation state was carried out, allowing for the identification of factors contributing to the buildings' deterioration. After concluding the research phase concerning completed buildings, unbuilt examples were also analyzed based on discovered project documentation and architectural concepts. The Detailed Research section was complemented by a valorization process according to three established criteria.

The synthesis of information regarding the historical context of the Silesian Voivodeship from 1945 to 1989 enabled the formulation of a justification for data uncovered during general research, particularly data from the 1960s indicating the highest rate of private single-family home financing in the former Katowice Voivodeship compared to the rest of the country. This situation was linked to government initiatives aimed at encouraging highly specialized professionals to settle in the Katowice area, in connection with the establishment of new industrial plants and scientific centers. These efforts were manifested in urban plans that allocated attractively located land for individual single-family housing. This fact provided a basis for addressing observations made during field research regarding the distinctive quantitative and qualitative scale of single-family housing stock in the Silesian Voivodeship. The identification of a total of 92 single-family houses commissioned individually by clients, designed by 16 architects—including several notable creators of Upper Silesian post-war modernist icons, prompted an inquiry into possible methods for classifying this research sample.

The classification of buildings based on their location (either urban areas or recreational area) during field research and comparative analysis did not reveal any significant correlations between location type and the typology of form or spatial layout of the buildings studied. However, it was observed that these buildings could be effectively categorized by spatial classification. The representative group of 30 buildings selected for further study demonstrated five such types. This classification concluded with the finding that, among these five, **two types should be considered characteristic of the period under study: houses with an elevated residential storey and split-level houses.** The emergence of these types can be seen as a response to regulatory restrictions associated with building codes and normative guidelines; **the spatial solutions within these types represented a clever strategy by architects to achieve a greater effective living area than the regulations would otherwise permit.**

In addressing the evaluation of this architectural heritage, three criteria were adopted: scientific value (**gaining new knowledge and uncovering widely unknown buildings or architects**), architectural value (**identifying spatial types of buildings that were innovative within the history of Polish architecture**), and cultural value (**providing insight into the aspirations and social standing of the segment of society that commissioned these designs**). This approach took into account the specific character of this type of housing, which, due to its strictly private nature, limits certain values primarily

to the users—namely, the residents—and whose impact on the surrounding environment remains relatively limited.

A series of architectural analyses of the collected examples of single-family houses, along with their evaluation in terms of architectural value, revealed notable insights. Through comparative analyses between this group of several dozen examined buildings and well-known examples from both Poland and abroad—representing various stylistic trends—**it becomes evident that some of the houses align with global architectural movements of the second half of the 20th century, or at least their designers drew inspiration from them.** This includes movements such as Mid-Century Style (e.g., the house in Pierściec designed by Ludwik Herok), the International Style (e.g., Edward Gierek's villa in Ustroń), and Brutalism (e.g., the house on Kukułek Street designed by Jurand Jarecki).

One of the subsequent stages involved assessing the preservation state of the examined buildings. Analysis of the houses documented during study visits and field research allowed for their categorization based on preservation status as follows: houses preserved in their original state (allowing for minor alterations or losses, with reversible modifications); houses in a state of significant transformation (with irreversible modifications); and demolished buildings. Quantitatively, based on the previously selected representative sample of 30 buildings, 19 are preserved in their original state, 9 have undergone significant transformations, and 2 have been demolished. **This result offers an optimistic outlook, as the largest group remains those buildings in their original state, providing a strong case for urgent protective measures in the near future.**

In the course of analyzing various cases of preservation status, including significantly altered and demolished buildings, a series of **destructive factors affecting the examined single-family homes** was identified. These factors include: insufficient thermal insulation in houses from the period under study; frequent lack of architectural adaptation to the specific climatic conditions of each location, particularly for houses situated in mountainous areas; susceptibility of these houses to the changing aesthetic preferences of their owners; and the high value of the land on which they are situated.

V. Recommendations regarding the protection of the subject heritage

The first point outlines notable, effective global approaches aimed at preserving the architectural heritage of single-family houses from the second half of the 20th century. The second point presents a set of general guidelines, developed by the Author of this dissertation, for protecting this heritage, based on an examination of single-family houses from the Polish People's Republic era in the Silesian Voivodeship.

1. Effective practices worldwide in preserving the architectural heritage

Analyzing effective practices worldwide applied to the architectural heritage of single-family houses reveals that such efforts not only protect the physical structure of these unique buildings but also enhance their cultural value by making them accessible to the public. A crucial category of actions supporting the preservation of such buildings involves public engagement initiatives, which in Poland are not yet highly developed with respect to architectural heritage of single-family houses from the second half of the 20th century[323].

The first particularly effective method is the acquisition of architecturally significant houses by local governments or heritage organizations with the intention of converting them into museums. This approach is often applied when historically valuable homes, such as mid-century modernist residences or houses designed by renowned architects, are listed for sale. Rather than allowing these properties to undergo potentially detrimental changes under private ownership, municipalities or heritage trusts can purchase them, ensuring preservation of both the architectural and historical character. In many cases, these homes are then carefully restored, furnished with period-specific decor, and opened to the public. For example, the Eames House in Los Angeles—purchased and maintained by the Eames Foundation—offers visitors insight into the architectural and design innovations of Charles and Ray Eames[324]. By converting such homes into museums, communities effectively preserve architectural heritage while also making it accessible to the public, deepening cultural awareness and appreciation for these unique structures.

Another successful practice involves converting iconic single-family houses into boutique hotels, an approach that has grown popular with the rise of architectural tourism. Around the world, many travelers are drawn to visit famous examples of modernist or mid-century residential architecture, with a particular interest in staying in architecturally significant buildings.

In discussing the accessibility and possibility of temporary stays in outstanding examples of architectural heritage single-family homes worldwide, it is essential to mention *the Iconic Houses Network*. This network is an international organization dedicated to identifying, preserving, and promoting 20th-century houses of architectural, cultural, or historical significance. Established to protect modernist and postwar single-family residences, the network connects a wide array of architecturally significant homes designed by renowned architects around the world.

[323] An example of such an initiative aimed at popularizing this type of heritage in Poland is the Zofia and Oskar Hansen House in Szumin, which has become a branch of the Museum of Modern Art in Warsaw.
[324] https://eamesfoundation.org/

2. General guidelines for the protection of the subject heritage

Protecting the architectural heritage of single-family houses from the PRL period requires an integrated approach, balancing public awareness, institutional support, and academic engagement. The following guidelines aim to foster recognition, conservation, and sustainable preservation of these unique structures, which represent the architectural history of the second half of the 20th century in Poland.

Firstly, **public awareness and popularization** efforts should focus on highlighting the historical and cultural value of these houses, particularly among homeowners and local communities. Informational campaigns, open-house events, and architectural tours can raise public interest, encouraging property owners to preserve original architectural elements and recognize the unique design qualities of PRL-era houses.

Secondly, **institutional support** is crucial to facilitating effective conservation. Government and local authorities should consider establishing financial support programs, such as grants or tax incentives, to assist owners who commit to preservation efforts. Additionally, encouraging homeowners to register their properties as cultural heritage sites can offer extra protection and support for responsible conservation practices, ensuring that restorations respect the historical integrity of the homes.

Lastly, **scientific and academic initiatives** play a key role in documenting, analyzing, and expanding the understanding of PRL-era architecture. Further research on PRL-era houses, including comparative studies across regions with similar architectural heritage, can deepen appreciation of this period's contributions to residential design. Moreover, creating accessible archives and databases that support the integration of this subject into the academic discourse in architecture and preservation programs will foster ongoing interest and expertise in the field.

Another significant guideline, formulated based on comprehensive field research and interviews, emphasizes that the aforementioned **areas of preservation should interconnect and complement each other in a cohesive framework**. For instance, collaboration between experts in architectural conservation, representatives from government offices, and cultural institutions can result in the development of **practical restoration guidelines and toolkits tailored for homeowners**. This is especially important, as many PRL-era homeowners lack access to resources on historically respectful renovation practices, which often leads to unintentional damage to original architectural features and finishes. Providing accessible, practical guidelines for maintenance and restoration could greatly support homeowners in making informed choices that align with conservation principles. Local heritage organizations, municipal offices, or dedicated preservation bodies could take the initiative to develop these toolkits. These resources might include advice on how to preserve essential architectural elements, such as facade materials, original window styles, and spatial layouts. Additionally, these toolkits could offer affordable restoration techniques, suggest preservation-friendly materials, and include lists of skilled tradespeople and conservation architects with expertise in mid-20th-century residential architecture. **This type of coordinated effort would be an example of a situation in which the theoretical aspect has strong potential for practical application.**

VI. Discussion of research results and final reflection

The following discussion of research results is based on an analysis of conclusions from each stage of the research process, interpreted as responses to the research questions adopted in this dissertation. In this context, each question will be examined individually, with any supplementary remarks compiled at the end of this section.

- *Question 1. What is the state of research on the problem?*

The preliminary assumption made in the early stages of research process forecasted a significant gap in existing research on Poland's architectural heritage from the latter second of the 20th century. Comprehensive literature reviews confirmed the validity of this assumption. **The state of knowledge concerning Poland's single-family residential architecture from the second half of the 20th century is notably limited.** Among the existing literature, studies merely reference such houses as supplementary mentions within broader architectural contexts. When compared to other European nations, Poland has a significant gap to bridge, both in terms of scholarly research and conservation efforts specific to its private residential architecture from this period. **Furthermore, Polish single-family houses from the communist era remain largely unknown internationally.** These residences have not been widely included in global architectural surveys or international publications, likely due to the lack of comprehensive Polish studies on the subject. **This oversight highlights an opportunity for Polish architectural heritage to gain broader recognition through increased research, documentation, and international engagement in the future.**

The conducted analysis of the current state of knowledge confirmed the existence of a research gap, underscoring the relevance of this topic. Research on the heritage of modernist single-family homes in Poland is notably sparse, and preservation initiatives in this area are essentially non-existent. This lack of scholarly attention and preservation activity highlights the pressing need for comprehensive study and documentation within this field.

- *Question 2. What factors influenced the shaping of single-family residential architecture during the studied time period?*

The overview of conditions and recognized examples of single-family houses from the era of the Polish People's Republic (PRL) primarily enabled the identification of a comprehensive set of determinants influencing the architectural formation of such residences during this period. Numerous factors contributed to this outcome. Based on the research, four main factors were identified and categorized as follows: economic and policy determinants, legal determinants, cognitive determinants, and social determinants.

Among these, **the most significant appear to be economic policy determinants and their closely related legal determinants.** These factors provided a framework that, on the one hand, defined the circumstances for hiring architects for private design commissions (which had to be completed outside the structures of state design offices) and, on the other hand, set the spatial scale of buildings (through area regulations). Based on the examined examples of single-family houses from Poland, designed through private commissions, **it is notable that this set of imposed limitations did not, in fact, suppress the creative potential of architects.** Rather, one might even hypothesize that, in certain cases, these constraints sparked a heightened creativity among designers who sought to create buildings featuring innovative solutions while ensuring they met the approval requirements set by the authorities for construction and occupancy.

- *Question 3. What is the scope of the resources of the subject architectural heritage in the study area?*

The synthesis of information regarding the historical context of the Silesian Voivodeship from 1945 to 1989 enabled the formulation of a justification for data uncovered during general research indicating **the highest rate of private single-family home financing in the former Katowice Voivodeship compared to the rest of the country.** This situation was linked to government initiatives aimed at encouraging highly specialized professionals to settle in the Katowice area, in connection with the establishment of new industrial plants and scientific centers. These efforts were manifested in urban plans that allocated attractively located land for individual single-family housing. This fact provided a basis for addressing observations made during field research regarding the distinctive quantitative and qualitative scale of single-family housing stock in the Silesian Voivodeship.

However, it remains difficult to provide a definitive quantitative assessment of the total resource scale. Although sample of 92 houses was identified, practical limitations prevented full analysis of all identified structures, suggesting that many more such homes likely exist in the voivodeship. **Therefore, this research should be viewed as a contribution toward further exploration and study on this topic.**

- *Question 4. Is it possible to distinguish spatial types of these single-family houses?*

Yes, it is. It was observed that these buildings could be effectively categorized by spatial classification. The representative group of 30 buildings selected for further study demonstrated five such types: **single-storey houses (bungalow type); houses with an elevated residential storey; split-level houses; houses with multiple residential stories; houses with a mixed spatial structure.**

- *Question 5. What are the characteristics of the buildings identified in the study area in terms of their structure?*

This classification concluded with the finding that, among the five spatial types of houses**, two types should be considered characteristic of the period under study: houses with an elevated residential storey** (above a ground floor with a height equal to or less than 220 cm) **and split-level houses** (where significant portions of the actual living space, according to regulations, were incorporated into the staircase area, which was excluded from the calculation of the home's usable floor area). The emergence of these types can be seen as a response to regulatory restrictions associated with building codes and normative guidelines; **the spatial solutions within these types represented a clever strategy by architects to achieve a greater effective living area than the regulations would otherwise permit.**

- *Question 6. What values are represented by the examined resource?*

In the course of the research, three values representing the architectural heritage examined in this study were distinguished: scientific value (**gaining new knowledge and uncovering widely unknown buildings or architects**), architectural value (**identifying spatial types of buildings that were innovative within the history of Polish architecture**), and cultural value (**providing insight into the aspirations and social standing of the segment of society that commissioned these designs**).

- *Question 7. Can formal affinities with broader global stylistic trends be identified?*

Comparative analyses between a group of several dozen examined buildings and well-known examples from both Poland and abroad reveal that some of these houses align with global architectural movements of the second half of the 20th century, or at the very least, that their designers drew

inspiration from these styles. This includes movements such as *Mid-Century Style* (e.g., the house in Pierściec designed by Ludwik Herok), the *International Style* (e.g., Edward Gierek's villa in Ustroń), and *Brutalism* (e.g., the house on Kukułek Street designed by Jurand Jarecki).

- *Question 8. What is the preservation or degradation state of the existing buildings?*

Analysis of the houses documented during study visits and field research allowed for their categorization based on preservation status. Quantitatively, based on the previously selected representative sample of 30 buildings, 19 are preserved in their original state, 9 have undergone significant transformations, and 2 have been demolished. **This result offers an optimistic outlook, as the largest group remains those buildings in their original state, providing a strong case for urgent protective measures in the near future.**

- *Question 9. What factors are contributing to the deterioration of the examined buildings?*

These factors include**: insufficient thermal insulation in houses** from the period under study; **frequent lack of architectural adaptation to the specific climatic conditions** of each location, particularly for houses situated in mountainous areas; **susceptibility of these houses to the changing aesthetic preferences of their owners**; and the **high value of the land on which they are situated**.

- *Question 10. Can effective global practices for preserving the studied architectural heritage be identified?*

Analyzing effective practices worldwide applied to the architectural heritage of single-family houses reveals that such efforts not only protect the physical structure of these unique buildings but also **enhance their cultural value by making them accessible to the public**. Two main models for this approach exist globally: the purchase of architecturally valuable homes by a municipality, city, or state to establish museums within them, and the creation of boutique hotels aimed at architectural tourism.

- *Question 11. What recommendations can be formulated regarding the protection of the subject architectural heritage?*

A crucial conclusion drawn from the analysis of potential forms of heritage preservation for single-family houses is that the aforementioned areas of preservation should interconnect and complement each other within a cohesive framework. For instance, collaboration between experts in architectural conservation, representatives from government offices, and cultural institutions could lead to the development of practical restoration guidelines and toolkits tailored for homeowners. Making accessible, user-friendly guidelines available for maintenance and restoration would greatly support homeowners in making informed decisions that align with conservation principles.

* * *

Since the conclusions from each part of the research effectively addressed all posed research questions, **the study's objective was thus achieved**—the objective being to address the research problem, which represented a gap in the current state of knowledge that has now been filled.

This study is marked by its pioneering nature, evident at every stage of the research process. Given the complete absence of previous scholarly work on this topic, most source materials had to be gathered independently, without institutional support. Securing original drawings and project documentation posed significant challenges, as many records had been either lost in municipal archives or destroyed following Poland's political transformation. Additionally, the documentation of private homes depended largely on the goodwill of homeowners, to whom special gratitude is owed for their trust and the time they devoted to this research.

A further aspect of this study's pioneering character is the awareness that numerous architecturally significant houses in the region may still await discovery. This includes the profiles of many of their architects, who were exceptional practitioners but whose contributions have remained under-recognized in studies of 20th-century Polish architectural heritage.

This awareness of the exploratory nature of the work serves as a strong motivator for further research. Future studies will undoubtedly extend beyond regional boundaries, as other cities and regions likely contain similarly undiscovered homes. **Moreover, such research holds potential for broader comparative studies across post-Soviet countries, where parallels in architectural heritage may lead to insightful comparisons and discussions between Poland and its neighbors.**

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Fig. 64. House designed by Krystian Seibert at 153 Kościuszki Street, Katowice: the project documentation, 1969 [a-e]; views from the perspective of Kościuszki Street, 2023 [f-g]; view on the detail of the entrance zone, 2023 [h]. Sources: the Building Archive of the City of Katowice [a-e]; photographs taken by the Author [f-h].

Fig. 65. House designed by Wojciech Pietrzyk at 4 Sikorek Street, Katowice: the project documentation, 1969 [a]; an axonometric drawing of the building form [b]; schematic drawings of the elevations, section, and floor plans of the building [c-d]; view from the perspective of Sikorek Street, 2012 [e]; view from the perspective of Sikorek Street, 2022 [f]; views from the garden side [g-h]. Sources: the private archives of the home-owner [a]; prepared by the Author [b-d]; Google Maps Street View [e]; photographs taken by the Author [f-h].

Fig. 66. House designed by Wiktor Lipowczan at 59 Nowokościelna Street, Tychy: the project documentation [a-f]; view from the perspective of Nowokościelna Street [g]; view on the staircase and the living room [h]. Sources: the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [a-f]; photographs taken by the Author [g-h].

Fig. 67. House designed by Henryk Buszko and Aleksnader Franta at 14B Różyckiego Street, Katowice: the project documentation [a-d]; views from the perspective of the restricted driveway [e-f]; view from the south [g]; view on the entrance hall [h]. Sources: the Archive of the Institute of Architecture Documentation at the Silesian Library in Katowice [a-d]; photographs taken by the Author [e-h].

Fig. 68. House designed by Zbigniew Weber at 8A Słowików Street, Katowice: aerial view with the use of Google Maps [a]; the project documentation [b-d]; views from the perspective of Słowików Street [e-f]; view from the south [g]; a view of the bay window detail cantilevered over the Kłodnica River, as seen in perspective from Słowików Street [h]. Sources: Google Maps [a]; the private archives of the current home-owners [b-d]; photographs taken by the Author [e-h].

Fig. 69. Diagram of the spatial classification of single-family houses from the PRL period: Single-storey (bungalow) house [a]; House with an elevated residential storey [b]; Split-level house [c]; House with multiple residential stories [d]; House with a mixed spatial structure [e]. Source: prepared by the Author.

Fig. 70. House designed by Ewa and Marek Dziekoński on Nowokościelna Street in Tychy as an example of monolithic form composition [a]; House designed by Wiktor Lipowczan on Jerzyków Street in Katowice as an example of additive form composition [b]. Sources: photo by the Author [a-b].

Fig. 71. House designed by Wiktor Lipowczan in Poziomkowa Street in Katowice as an example of horizontal form composition [a]; House designed by Bożena and Janusz Włodarczyk on Górnośląska Street in Wisła as an example of diagonal form composition [b]. Sources: photo by the Author [a-b].

Fig. 72. Conceptual drawing by Jurand Jarecki showing floor plans of a house in Szczyrk containing two independent residential units, 1972. Lower section [a]; Upper section with an additional residential unit marked with a separate entrance [b]. Source: Archive of the Institute of Architectural Documentation, Silesian Library in Katowice.

Fig. 73. Conceptual floor plan drawing of the ground floor of the house designed by Ewa and Marek Dziekoński in Tychy, 1969. The proposed medical practise with a separate entrance is marked with a red outline [a]. Floor plan of the house designed by Wiktor Lipowczan on Drozdów Street in Katowice. The medical practice with a separate entrance is highlighted with red hatching [b]. Sources: Private archive of architect Ewa Dziekońska [a]; Prepared by the Author.

Fig. 74. Photographs of examples of houses with open-plan interiors, where circulation areas intersect with the main living space. House designed by Marian Stańco in Bielsko-Biała [a]; House designed by Stanisław Niemczyk in Czechowice-Dziedzice [b]; House designed by Bożena and Janusz Włodarczyk in Wisła [c]. Sources: Photo by the Autor [a-c].

Fig. 75. Example of linear arrangement [a]; Example of nodal (point-based) arrangement [b]; Example of circulatory arrangement [c]. Sources: Prepared by the Author [a-c].

Fig. 76. Single- family house designed by Ewa and Marek Dziekoński on Nowokościelna Street in Tychy: Conceptual sectional drawing showing the semi-enclosed patio on the second floor [a]; View from the living room toward the semi-enclosed patio. Sources: Private archive of Ewa Dziekońska [a]; Photo by the Author [b].

Fig. 77. Detail of an interior design project by Wiktor Lipowczan for a residence on Panewnicka Street in Katowice, 1978 [a]; Detail of an interior design project by Wojciech Pietrzyk for a residence on Morwowa Street in Katowice, 1975 [b]. Sources: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice [a]; Municipal Archive, Katowice City Office [b].

Fig. 78. Photograph of an interior featuring a freestanding fireplace in the house of Edward Gierek, designed by Henryk Buszko and Aleksander Franta on Zielona Street in Ustroń, 1974 [a]; Fireplace designed by an artist Czesław Bąba in a house designed by Wojciech Pietrzyk on Sikorek Street in Katowice [b]. Sources: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice [a]; Photo by the Author [b].

Fig. 79. Individually designed interiors of selected rooms in the examined single-family houses. House designed by Wojciech Pietrzyk on Sikorek Street in Katowice [a]; House designed by Wiktor Lipowczan on Jerzyków Street in Katowice [b]; House designed by Ewa and Marek Dziekoński on Nowokościelna

Street in Tychy [c]; House designed by Marian Stańco in Bielsko-Biała [d]. Sources: Photo by the Author [a-d].

Fig. 80. Example of combining ceramic mosaic with the qualities of natural wood in architect Ludwik Herok's house in Pierściec near Skoczów [a]; Example of the use of formwork concrete on the facade of a house designed by Jurand Jarecki in Katowice. [b]; Sources: photo by the Author [a-b].

Fig. 81. Photographs of the exterior view of the same split-level house designed by Jurand Jarecki on Stroma Street in Sosnowiec: in 2022 [a]; in 2024 [b]. Sources: photos by the Author.

Fig. 82. Own house designed by Wiktor Lipowczan at 31 Drozdów Street in Katowice: Archival photograph taken by Halina Lipowczan, 1976 [a]; Photograph of the house during its demolition in 2012 [b]. Sources: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice [a]; Google Maps Street View, 2012 preview [b].

Fig. 83. The house designed by Wiktor Lipowczan on Jerzyków Street in Katowice shortly before demolition. [a-b]. Source: photos by the Author, 2022.

Fig. 84. Conceptual drawings of a single-family house in Katowice-Brynów by Stanisław Kwaśniewicz, 1957. Source: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice.

Fig. 85. Conceptual drawings of a single-family house in Ustroń–Jaszowiec by Henryk Buszko and Aleksander Franta, 1959. Sources: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice.

Fig. 86. Elevation drawings of two single-family houses designed by Mieczysław Król in the Silesian Beskids: 1961 [a]; 1966 [b]. Sources: Family archive of Rafał Król.

Fig. 87. Elevation drawings of an architectural concept for a single-family house in Italy by Ewa and Marek Dziekoński, location unknown, 1968. Sources: Private archive of architect Ewa Dziekońska.

Fig. 88. Conceptual drawings of two design variants for a single-family house in Oran, Algeria, by Jurand Jarecki, 1978. Source: Archive of the Institute of Architecture Documentation, Silesian Library in Katowice.

IX. Abstract

1. English Abstract

Keywords: architectural heritage; 20th-century architecture; late modernism; single-family house; individual design; architecture of the Polish People's Republic (PRL)

The research topic focuses on the field of the history of Polish architecture in the second half of the 20th century. The subject of this dissertation is private single-family houses designed on individual commission during the era of the Polish People's Republic (1945–1989). The lack of prior studies on the subject, coupled with a demonstrated gap in the current state of knowledge, has been identified as the research problem addressed in this work.

In popular perception, Polish single-family houses built between 1945 and 1989 are most often associated with the so-called "Polish cube" houses—structures based on repetitive and unoriginal standard designs. Preliminary research, however, revealed that the development of single-family housing during this period followed a dual path. Alongside the typical houses, highly modern private single-family homes were being designed and constructed in accordance with global design trends. These houses were commissioned and built for clients such as academics, doctors, engineers, and managers of state enterprises.

The aerial scope of the research encompasses the Silesian Voivodeship, with a particular focus on urban centers of regional administration, industry, and academia located within the Upper Silesian conurbation, as well as recreational and spa centers in the Silesian Beskid Mountains. The theoretical research analyzed the conditions and factors influencing the development of single-family house architecture in the 20th century globally. Subsequently, the study examined the working conditions of architects in the second half of the 20th century in Poland, with particular emphasis on the regional community of architects. Additionally, the factors driving the phenomenon of single-family house construction during the Polish People's Republic (PRL) were identified. Field research involved the examination of nearly one hundred buildings constructed within the Silesian Voivodeship. A selection of representative examples of single-family houses formed the basis for typological analyses, focusing on aspects such as spatial layouts, floor plan configurations, materials used, and interior design solutions.

The collected data also facilitated an analysis of the preservation state of the studied group of buildings, the identification of factors contributing to their deterioration, and the formulation of conclusions leading to general guidelines for the protection of this architectural heritage from the second half of the 20th century.

2. Polish Abstract

Słowa kluczowe: dziedzictwo architektoniczne; architektura XX wieku; późny modernizm; dom jednorodzinny; projekt indywidualny; architektura PRL

Podjęta tematyka badawcza dotyczy obszaru zagadnień historii architektury polskiej drugiej połowy XX wieku. Przedmiotem rozprawy są prywatne domy jednorodzinne zaprojektowane na indywidualne zamówienie w okresie Polski Ludowej (1945-1989). Brak dotychczasowych badań przedmiotu przy jednocześnie wykazanej wyraźnej luce w stanie wiedzy zostały przyjęte jako problem badawczy pracy.

W powszechnej świadomości polskie domy jednorodzinne powstające w latach 1945-1989 kojarzone są najczęściej z tzw. „kostką polską", domami budowanymi w oparciu o powtarzalne i nieoryginalne projekty typowe. Przeprowadzone badania wstępne pozwoliły zauważyć, że proces powstawania budownictwa jednorodzinnego w tym okresie przebiegał dwutorowo. Równolegle z domami typowymi powstawały bardzo nowoczesne, zgodne ze światowymi trendami projektowymi prywatne domy jednorodzinne. Były one projektowane i budowane na indywidualne zlecenia m.in. naukowców, lekarzy, inżynierów, czy kadry zarządzającej państwowymi przedsiębiorstwami.

Zakresem obszarowym badań jest obszar województwa śląskiego, a w szczególności miejskie ośrodki regionalnej administracji, przemysłu oraz nauki zlokalizowane w obrębie konurbacji górnośląskiej oraz ośrodki rekreacyjne i uzdrowiskowe w Beskidzie Śląskim. W ramach badań teoretycznych przeanalizowano uwarunkowania i czynniki wpływające na kształtowanie architektury domów jednorodzinnych w XX wieku na świecie. Następnie zbadano uwarunkowania pracy architektów w drugiej połowie XX wieku w Polsce przy szczególnym uwzględnieniu regionalnego środowiska architektów oraz zdefiniowano czynniki wpływające na zjawisko powstawania domów jednorodzinnych w PRL. Badania terenowe zaowocowały przebadaniem blisko stu obiektów zrealizowanych na obszarze województwa śląskiego. Z kolei wybór grupy reprezentatywnych przykładów domów jednorodzinnych posłużył jako podstawę dla przeprowadzania analiz typologicznych w aspekcie m.in. dyspozycji przestrzennej, układów rzutów, stosowanych materiałów oraz rozwiązań projektowych wnętrz.

Zgromadzone informacje pozwoliły również na przeprowadzenie analizy stanu zachowania przebadanej grupy budynków, identyfikację czynników wpływających na nie destrukcyjnie oraz sformułowania wniosków prowadzących do ogólnych wytycznych dotyczących ochrony przedmiotowego dziedzictwa architektonicznego drugiej połowy XX wieku.

3. Italian Abstract

Parole chiave: patrimonio architettonico; architettura del XX secolo; tardo modernismo; casa unifamiliare; progetto individuale; architettura della Repubblica Popolare Polacca (PRL)

Il tema di ricerca affrontato riguarda la storia dell'architettura polacca della seconda metà del XX secolo. L'oggetto della tesi sono le case unifamiliari private progettate su commissione individuale nel periodo della Repubblica Popolare di Polonia (1945-1989). La mancanza di studi precedenti sull'argomento, insieme a una chiara lacuna nello stato attuale delle conoscenze, è stata individuata come il problema di ricerca centrale del lavoro.

Nell'immaginario collettivo, le case unifamiliari polacche costruite tra il 1945 e il 1989 sono spesso associate alla cosiddetta 'kostka polska' – edifici basati su progetti standardizzati, ripetitivi e privi di originalità. Tuttavia, le ricerche preliminari hanno rivelato che lo sviluppo dell'edilizia unifamiliare in questo periodo seguì un percorso duplice. Accanto alle case tipiche, vennero realizzate abitazioni private estremamente moderne, progettate secondo le tendenze architettoniche internazionali. Queste case furono progettate e costruite su commissione individuale da parte di scienziati, medici, ingegneri e dirigenti delle imprese statali.

L'ambito geografico della ricerca si concentra sulla regione del Voivodato della Slesia, con particolare attenzione ai centri urbani di amministrazione regionale, industria e ricerca situati nella conurbazione dell'Alta Slesia, nonché ai centri ricreativi e termali nei Monti Beschidi Slesiani. Nell'ambito delle ricerche teoriche, sono state analizzate le condizioni e i fattori che hanno influenzato la formazione dell'architettura delle case unifamiliari nel XX secolo a livello globale. Successivamente, sono state studiate le condizioni operative degli architetti nella seconda metà del XX secolo in Polonia, con un focus particolare sull'ambiente regionale degli architetti, e sono stati definiti i fattori che hanno contribuito alla costruzione delle case unifamiliari durante il periodo della Repubblica Popolare Polacca. Le indagini sul campo hanno portato all'analisi di quasi cento edifici realizzati nel territorio del Voivodato della Slesia. La selezione di un gruppo rappresentativo di case unifamiliari ha costituito la base per lo svolgimento di analisi tipologiche relative, tra l'altro, alla disposizione spaziale, alla configurazione delle piante, ai materiali utilizzati e alle soluzioni progettuali degli interni.

Le informazioni raccolte hanno inoltre permesso di condurre un'analisi dello stato di conservazione del gruppo di edifici studiati, identificare i fattori che influiscono negativamente sulla loro integrità e formulare conclusioni che conducono a linee guida generali per la protezione di questo patrimonio architettonico della seconda metà del XX secolo.

X. Annex

1. Introduction

The original research methodology applied to each of the selected single-family houses as an organized set of actions and results can be systematically arranged and represented using a proprietary research tool—an Object Chart. This author's research tool is based on the 'immovable monument registration card' used in conservation documentation, the method of collecting data on monuments proposed by the Polish National Heritage Institute, and to a significant extend on the basis of the author's own considerations.

During the field studies, the author took notes during reconnaissance of each object. This process led to the crystallization of a structured content framework, which, after appropriate processing, takes the form of the Object Chart. The Chart presented in this annex to the study is the author's original proposal for a research tool, which, after suitable modifications, may prove useful for studying single-family houses in other regions of the country. Consequently, it can be considered a model solution. Organizing information in the form of such structured tables is particularly advantageous for planned comparative analyses of a larger number of objects and for identifying groups representing specific typologies based on the adopted classification criteria.

The set of object cards is introduced by a summary table, with fields designed to collect essential information for the efficient identification of each building: the architect's name, current address of the building, year of design, year of construction completion, date of the in-situ documentation, and the general status of the object.

The object card is structured to provide a comprehensive analysis of the examined building. Section 'A' includes information about the contextual situation of the object, with fields allowing for the characterization of the plot's topography, the specification of its area, and the inclusion of a site plan. Section 'B' is designated for archival materials, such as architectural drawings, documents, and historical photographs of the building. Section 'C' focuses on determining whether the house possessed any additional functional features related to the client's profession. Section 'D' provides a detailed set of information about the building's form, spatial organization, and structural solutions. This section combines descriptive fields with graphical elements, such as original drawings and syntheses. It also allows for a detailed analysis of the building's functional levels and the areas of living and non-living spaces. These aspects, as demonstrated by the research presented in this dissertation, played a significant role in shaping the spatial development of single-family houses during the period 1945–1989. Section 'E' contains a collection of photographs documenting the current state of the building. This is followed by Section 'F,' which focuses on analyzing the preservation state of the object. This includes evaluating the integrity of its form, the authenticity of preserved materials, the degree of interior transformations, and providing an overall assessment of the building's condition. Section 'G' complements this analysis with a graphical synthesis, allowing for a visual representation of any transformations or changes to the building. Finally, Section 'H' is reserved for documenting the sources used in the study.

2. Structure of a sample Chart

The individual sheets of the chart presented on the following pages have been filled, for example purposes, with information gathered about the single-family house located on Kukułek Street in Katowice, designed by Jurand Jarecki. Due to the completeness of the collected data on this house, this example can be considered representative for demonstrating the functionality of the author's research tool. The presented example of a completed object chart substantively addresses all the listed components necessary to achieve a comprehensive overview of the adopted research methodology.

1. Designer / Design team **JARECKI JURAND**		Acronym of the building **JJ-1**	Building Chart number **X**
2. Adress **Katowice, ul. Kukułek 38** (38 Kukułek St.)			
3. Year of design **1969**	4. Year of completion **1973**	5. Date of in-situ documentation 14.09.2024	6. General status **existing**

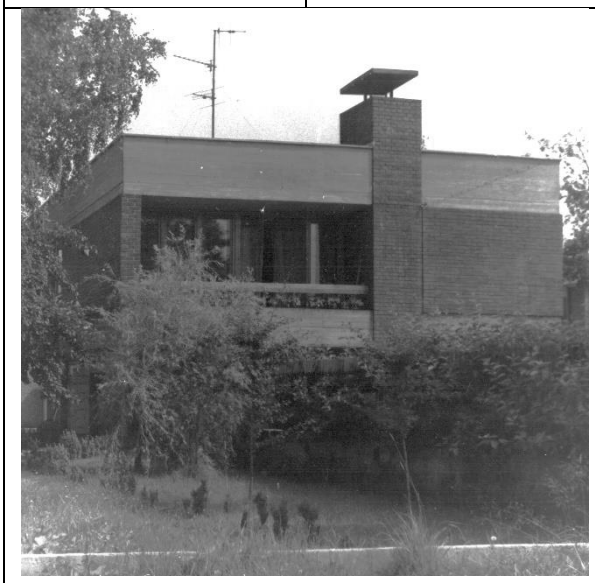


Fig. 1. View of the east façade, 1976

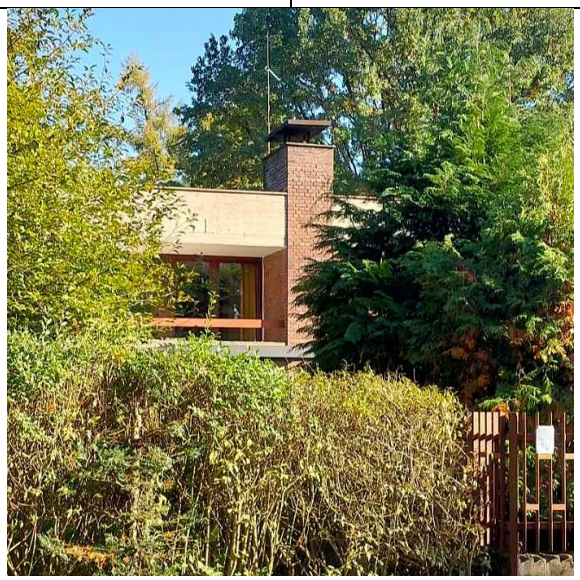


Fig. 2. View of the east façade, 2024

A. SPATIAL CONTEXT

1. Topography of the plot Flat terrain within the plot.	2. The area of the plot 638 m²

5. Site development plan

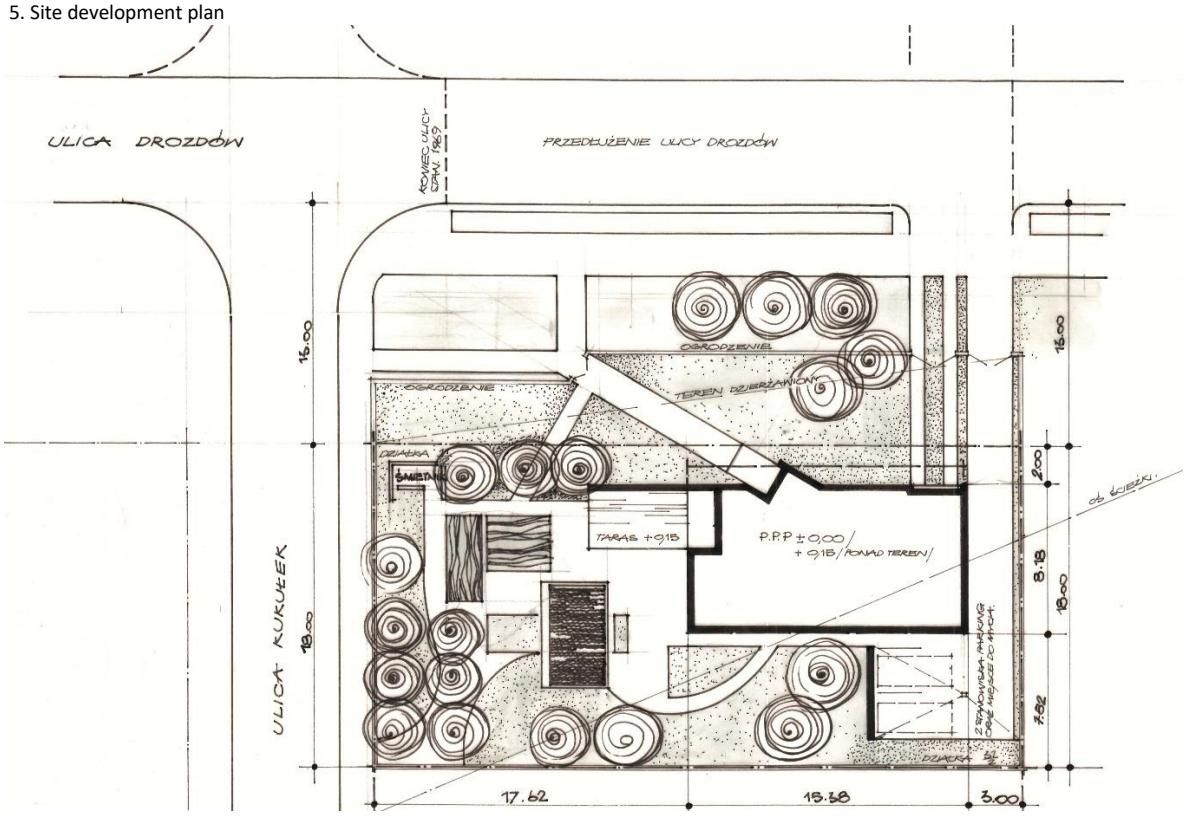


Fig. 3. Archival site development plan drawing, J. Jarecki, 1969.

B. ARCHIVAL MATERIALS

Fig. 5. Perspective drawing of the proposed house, J. Jarecki, 1969.

Fig. 6. Photograph of the house, J. Jarecki, 1976

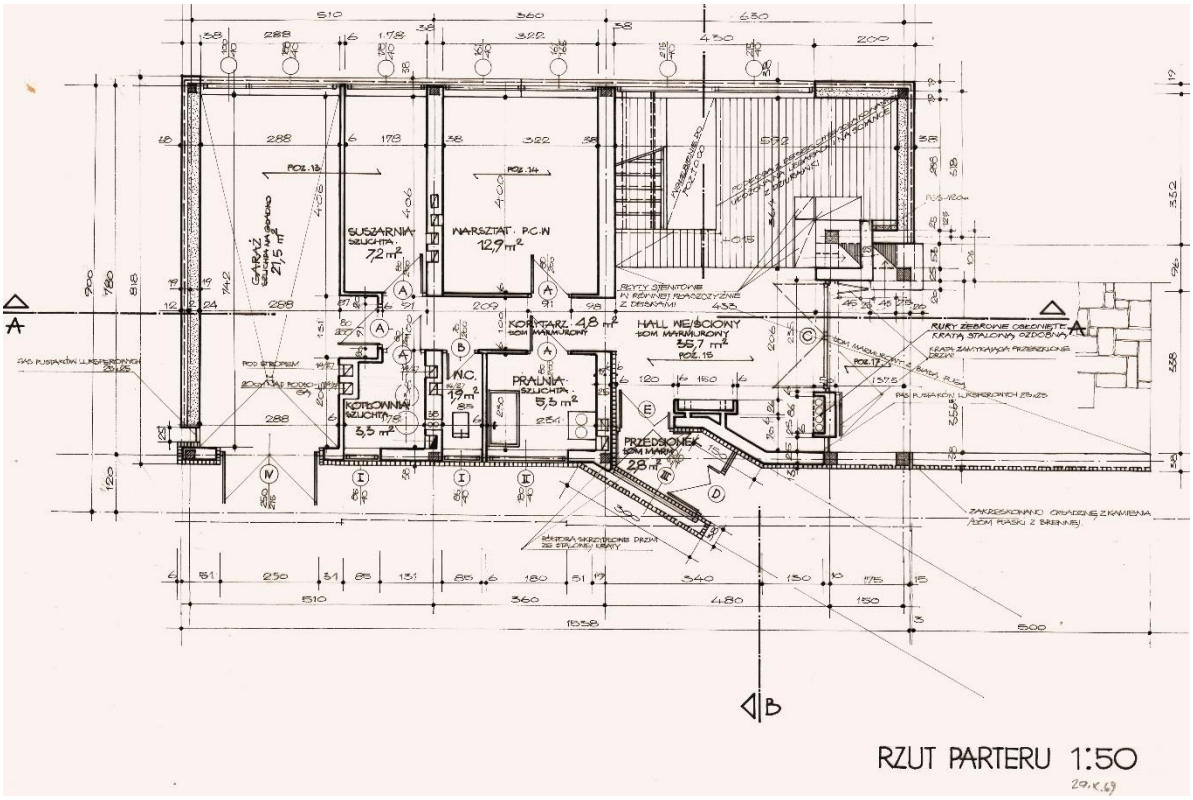


Fig. 7. Floor plan of the lowest level of the house, J. Jarecki, 1969.

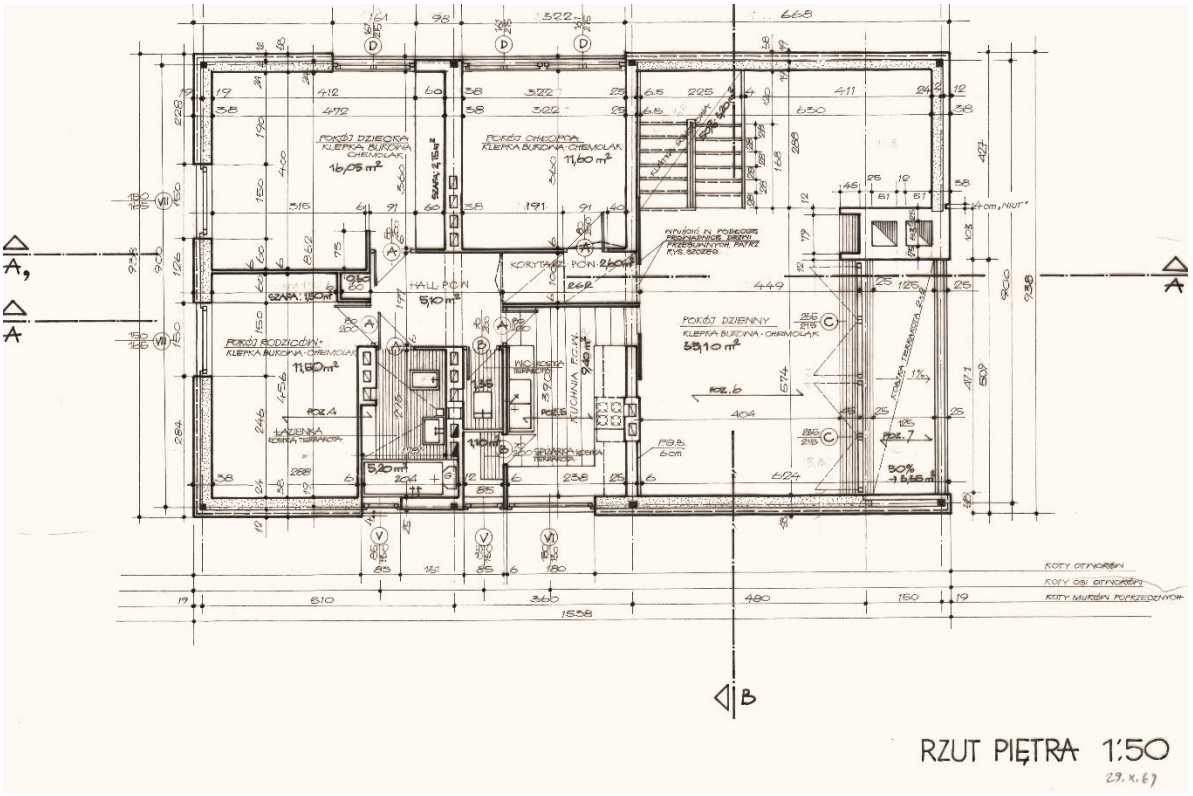


Fig. 8. Floor plan of the top level of the house, J. Jarecki, 1969.

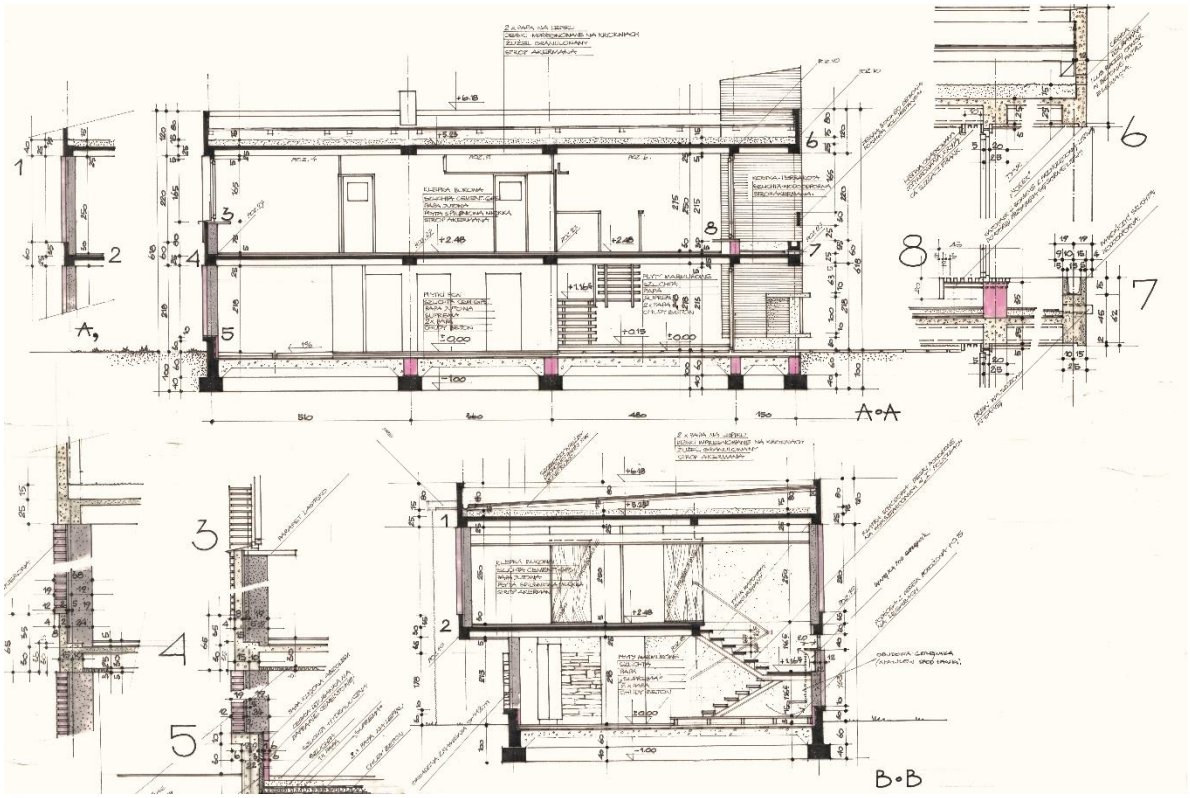


Fig. 9. Cross-sections of the house, J. Jarecki, 1969.

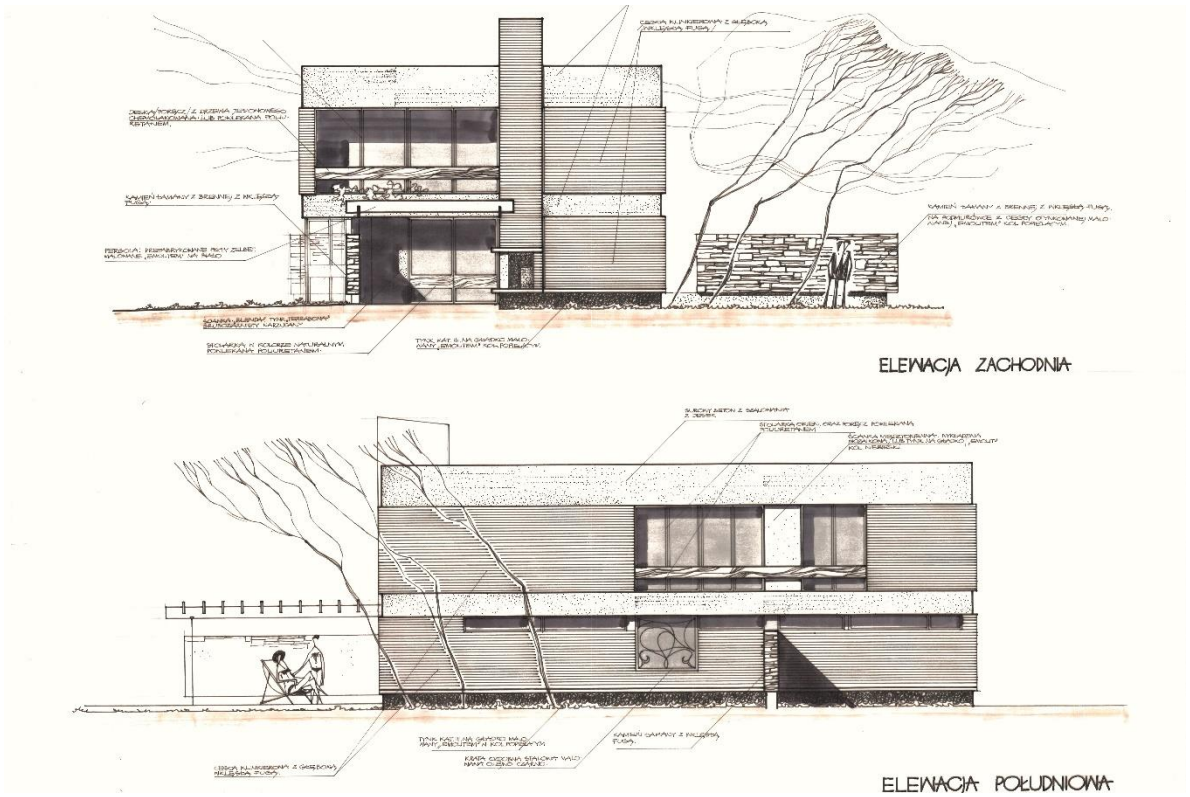


Fig. 10. Drawings of the west and south façades of the house, J. Jarecki, 1969.

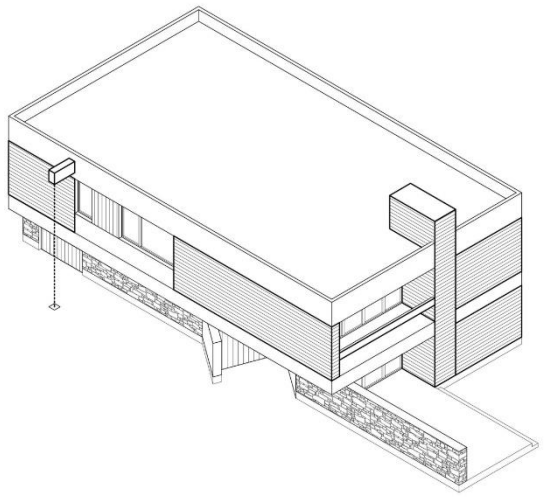
C. FUNCTIONAL ASSUMPTIONS

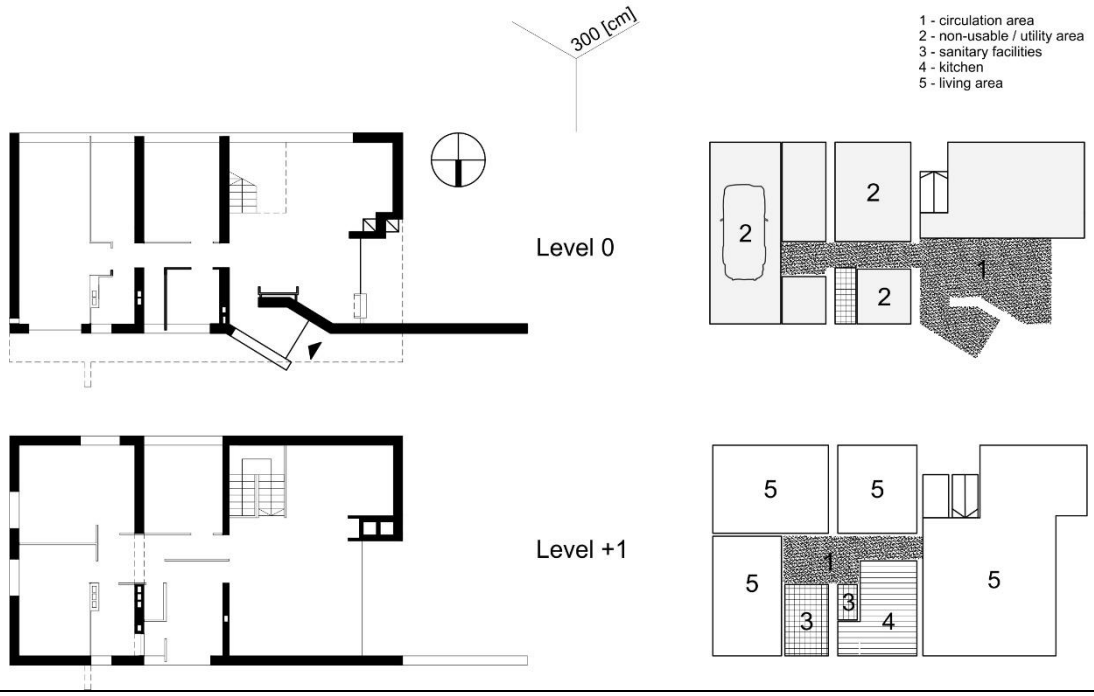
1. Investor profile (occupation or position)	2. Additional space (doctor's practice, professional studio, etc..)
Physician (medical doctor)	**No**

D. FORM, SPATIAL ORGANISATION AND STRUCTURAL SOLUTIONS

1. Type of building development	2. Type of building development
Detached building	**House with elevated residential storey**
3. Number of storeys	4. Number of residential / usable levels
Two	**One**
5. Living area	6. Usable area
92,4 m²	107,2 m²

7. Schemes of the form, spatial organisation and structural solutions – elaborated by the Author





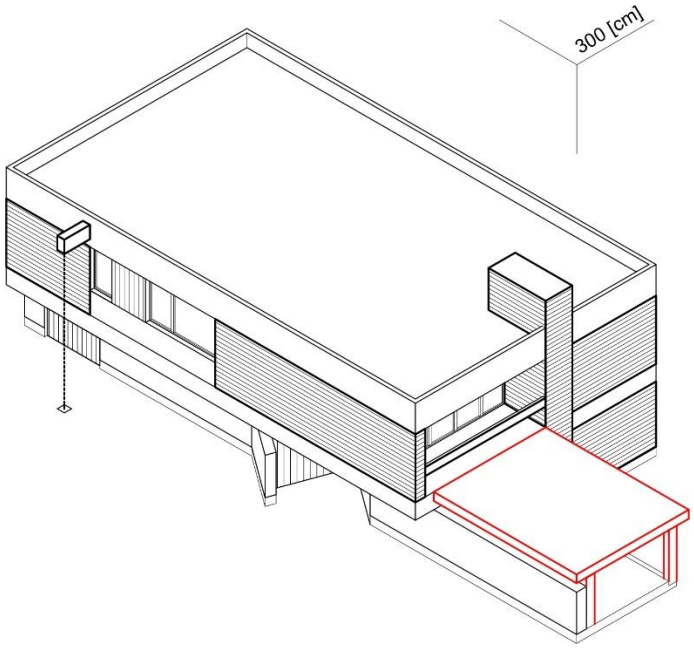
E. PHOTOGRAPHIC DOCUMENTATION OF THE BUILDING – CURRENT STATE

Fig. 11. Contemporary photographs of the house, J. Bródka, 2024.

F. PRESERVATION STATE ASSESSMENT

1. Analysis of the integrity of the form	2. Analysis of the finishing materials authenticity
The integrity of the form is preserved in the contemporary context. The only permanent addition made in modern times is the steel structure of the terrace roof (it is marked on the diagram below in red), attached to the western façade of the building. However, it should be classified as a reversible transformation.	The finishing materials are in their original condition. This applies to both the wall façades (exposed formwork concrete and clinker brick) as well as the wooden façade panels and stone cladding.
3. Analysis of interior transformation	**4. Overall assessment and degree of transformation**
Due to limited access to a significant portion of the house, a comprehensive analysis of the potential interior transformations was not possible. Based on an interview with the homeowner, it can be assumed that no changes have been made to the upper residential floor compared to its original state.	The minimal number of identified transformations, both on the exterior and interior of the building (limited solely to reversible alterations), allows for a comprehensive assessment of the structure as unaltered and in its original state of preservation.

G. GRAPHICAL SYNTHESIS



H. SOURCES

Fig. 1.; 3-10.	- Archives of the Institute of Architectural Documentation, Silesian Library in Katowice
Other graphics	- J. Bródka
	Additional sources: - Interview with architect Jurand Jarecki [2020, 2021.] - Interview with the homeowner [14.03.2024.]