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## *Architectural drawing as a sign of the times. An architect's workshop in the 19<sup>th</sup> and 20<sup>th</sup> centuries – retrospection*

### *Abstract*

The topic of the research is drawing used in architect's work. The author's aim was to draw attention to how important it is to be able to adopt the appropriate canon of architectural drawing to obtain a favourable message and to demonstrate that there should be freedom in the selection of graphics. The author concentrated on the presentation and analysis of architectural designs using various drawing conventions. The designs come from the 19<sup>th</sup> and 20<sup>th</sup> centuries – a period when the canons of the content and appearance of architectural studies were already in force. It was also a time when architectural drawing was a common practice, done traditionally by means of hand-drawn lines on paper. The review concerns projects implemented in Europe.

The analysis of architectural studies shows that architectural drawing, in the professional practice of an architect, is an integral part, including creative invention. The drawing convention adopted by the architect often results from the subject of the project, the context of the location, the style of the era, and the personality of the author.

The above dependence leads to the conclusion that the right to choose the drawing technique should remain with the artist, while maintaining the principles of technical knowledge and developed standards of drawing readability.

**Key words:** building design, architectural workshop, architectural drawing

### *Introduction*

The changing requirements as regards the preparation of architectural designs and the profession of an architect, particularly in Poland, but also in other European countries, force us to draw attention to the increasing trends which close a certain stage that was shaped in the past. Architectural drawing and its role in modern design constitute one of the topics of our discussion.

Architectural drawing is an integral part of an architect's professional activity. Originally, the drawing convention adopted by the architect resulted from the topic of the project, the context of the location, the style of the era as well as the author's mentality. The analysis of the architect's workshop, including highlighting the values of old drawing techniques, gives rise to reflection and maybe even implicit criticism of modern practices.

The article presents and analyses architectural projects which use various drawing conventions. These designs come from the 19<sup>th</sup> and 20<sup>th</sup> centuries – the period when the canons of contents and appearance of architectural studies were already in force. It was also a time when architectural drawings, which were made traditionally by means of handmade lines on paper, were a common practice. Our review covers seven projects which were implemented in Europe.

The author's goal was to draw attention to the importance of adopting an appropriate canon of architectural drawing in order to obtain a favourable message and to demonstrate that there should be freedom in the selection of graphics in this respect.

### *Description of the research*

The method of analysis, a case study and a query of archival documents, official documentation, legal acts as well as source literature were adopted. The architectural form, drawing technique, and artistic trends were analysed.

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Architectural projects, which presented a set of characteristic features for the times in which they were carried out, were selected for the research. The obtained data allowed us to draw certain conclusions.

### *The state of research*

Drawing has accompanied the architects' work for centuries. Thus, it became the subject of research by outstanding creators of architecture and art. In ancient times, the most remarkable success was achieved by Vitruvian treatise *De architectura libri decem* which explained the laws governing architecture. In chapter two, Vitruvius specified components of architecture, mentioning *dispositio* among them (skilful arrangement of building elements). The author of the work explained that there were the following types of *disposito*, i.e., ichnography (*drawing of the base of a planned building, made in the scale with the help of a compass and line, from which dimensions are later transferred to the area of the construction site*), orthography (*vertical image of the façade made in the scale corresponding to a future building*), scenography (*this is a sketch of the façade and side walls whose all lines converge at the central point*) [1, p. 15]. *Everything is the result of thoughts and ingenuity* [1, p. 15].

The Renaissance architect Filippo Brunelleschi contributed to the constitution of the principles of a linear perspective. Leon Battista Alberti, who also became famous as an architect, edited the Renaissance compendium of knowledge entitled *De pictura* which was dedicated, among other things, to drawing [2], [3]. There, we can find tips on the methods of reflecting products of the mind with a line. Another artist of the Renaissance, i.e., Piero della Francesca developed his interest in the perspective and searched for the rules determining the concept of beauty. In theoretical tractates, he presented [...] *mathematical analyses of perspective and proportion – two issues which fascinated the humanistic world of the Renaissance era* [4, p. 59]. Genius Leonardo da Vinci explored art and architecture by developing predecessors' systems for presenting objects on the plane and perfected his visual awareness. It is worth mentioning that Leonardo aired his views on scientific, philosophical, and technical issues simultaneously in writing and in drawings. Discursive thought and artistic statement permeated and complemented each other [5, p. vi]. His sculptural and architectural works are known through drawing and notes. *Leonardo da Vinci's Treatise on painting* [5], which presents numerous observations of the drawing master, is a compilation which was made of Leonardo's manuscripts by Maria Rzepińska.

The subject of architectural drawing has been taken up by architects, historians, and artists also today. A comprehensive analytical material, which was devoted to the record of architectural space, i.e., the records of architect's thoughts, images noticed by the architect, theory of architecture, as well as perspective drawings, drawings being autonomous works of art, photographic images, visualizations, and construction documentation, was collected in the study entitled *Defining architectural space. The record of architectural space* and edited by Maria Misiągiewicz

and Dariusz Kozłowski. The editors even put forward the thesis that [...] *the record of architectural space might be – architecture* [6, p. 4].

Many authors discuss the issues of architectural drawing on the occasion of exploring other research problems. Władysław Czarnecki, in his multi-volume work entitled *Planning cities and estates*, wrote about the importance of sketches for landscape studies and argued that *The drawing should be characterized by accuracy, i.e., precise reproduction of the shape, expressiveness of the image and should emphasise characteristic features with the greatest possible simplification of details* [7, p. 223].

Amélie Luquain presented the diagnosis of modern times in the article entitled *Freehand drawing: useless skill?* by asking a question whether freehand drawing is an essential skill of the architect in the face of the onslaught of digital technology [8].

The issue of modern forms of architectural recording is discussed in magazines and on Internet portals on a regular basis, which often results in a stir. The author of the article entitled *Słynne studio architektoniczne przyznaje: u nas projektuje sztuczna inteligencja* [The famous architectural studio admits: here, artificial intelligence designs] [9] wonders whether artificial intelligence can become an architect of the future because currently – as he reports – artificial intelligence (AI) is used to generate effective realistic images of architecture (e.g., DALL – E2, Stable Diffusion, Midjourney) by Zaha Hadid Architects Studio.

### *Architect's workshop – from a handwritten line to a digital code*

For architects, drawings constitute an opportunity to show effects of their work. For centuries, the ability to use architectural drawing has been a practice necessary in pursuing the art of construction, architectural art or aspiring to the title of an architect.

In France, for example, according to “L'exposition Dessiner pour bâtir: le métier d'architecte au XVII<sup>e</sup> siècle”, the origins of teaching architectural drawing and attempts at unifying codes of architectural concepts presentations date back to the 17<sup>th</sup> century [8]. Freehand drawing was a useful skill from the beginning to the end of the construction process. Designs were drawn with various tools. Apart from a pencil, crayon, feather, charcoal, brush and paint, also ruling pens, technical pens, markers, and felt-tip pens were used later. At present, digital mapping techniques or copying technologies are applied. By participating in this evolution of visual techniques, architects modernized their work. Innovative tools allowed them to adapt to the growing requirements of customers, office procedures or competition with other companies. Architects who value their profession have always sought the reliability of drawing analyses and the artistic effect of their projects, regardless of the stage of activity. An effective drawing was usually used, depending on the needs, i.e., making the first sketches of the location, landscape, and then ideograms, shapes of the architectural vision, as well as drawing precise plans which were in accordance with the provisions regulated by standards and specif-

ic details at the implementation stage. The selection of graphics was aimed at collision-free communication with the investor.

Drawing was also a tool of analysis. Czarnecki emphasized [...] *the importance and ability to make sketches for landscape studies because photography often does not reflect that which is the most important for drawing conclusions* [7, p. 223]<sup>1</sup>.

The graphic design was also a showcase for the architect. The aesthetics of works was at such a high level that they became works of art in themselves. When an architectural work was implemented and aroused the favour of general public, it was also reproduced in photographs, paintings, and drawings.

Nowadays in Poland, the whole architect's work is dominated by a commercial dimension of the activity. It concerns the increasing responsibility of the designer, "both formal and technical, as well as legal and economic". One of the manifestations of this tendency is the requirement to obtain the approval of public administration bodies, including the architectural and construction authority in the construction process. Construction projects are supposed to meet the criteria that will be the basis for their approval and the start of construction works. Projects become part of the administrative decision. When preparing construction documentation, designers are particularly connected with drawing standards which ensure unambiguity of the message. Archival materials show that to some extent it was also a routine in previous centuries. However, design documentation arrangements resulting from applicable regulations are successively more and more and the volume of projects is increasing due to the text part.

During modernization of the Polish Construction Law in the 1990s, discussions about the need to create an ideal pattern of documentation were often initiated. This happened when the provisions regulating the scope and form of the architectural and construction design were already in force. According to the opinion of officials and designers seeking to rationalize and improve communication skills, the regulations were insufficient.

On the basis of Polish law, the following course of action aimed at the erection of a building was finally adopted (without taking into account the cases settled in the construction supervision procedure). First, an architectural concept is presented in an attractive manner in order to win the favour of an investor. A certain freedom in adhering to drawing standards at this stage was accepted. The next stage of the project is the construction design. Often, the illustrative layer then loses its artistic value. Construction documentation, which is made according to bureaucratic principles, is assessed primarily in terms of the completeness and compliance of the plot development project and the architectural and building design with the local law acts. Only the plot development plan is verified in terms of compliance with technical and construction regulations

[10]. Hastiness and the desire to minimize official contacts (adapting to the institutional scheme) do not encourage drawing elegance. Only enthusiasts are able to apply the sophisticated drawing techniques. Designs which are created in the computer technology are rarely characterized by individual graphics. Digital block libraries – pre-drawn objects for CAD or BIM software impose the appearance of architectural drawings. Also at the stage of executive projects, detailed computer printouts are sent to the construction site.

The present attempt at unifying the architectural message and admission of electronic developments in offices, apart from losing originality, may additionally contribute to the elimination of architects who do not have electronic equipment and expensive software at their disposal from the profession in the future. The skills in the scope of Building Information Modelling (BIM) already constitute now a condition necessary in order to participate in some project competitions.

### *Examples of projects from the freehand drawing era*

It is assumed that architectural drawing is the presentation of a building in connection with the surroundings in a way that makes it possible to understand its characteristic features. *Architectural drawing is the application of geometric principles, aesthetic reasons, and practical requirements. The whole is framed with conventions. The synthesis and graphic translation of all these imperatives is modulated depending on the method of drawing, from a handwritten sketch to the most sophisticated computer systems* [11]. Hence, through the lines which give shapes, and additionally with the participation of words and numbers as minimal as possible, an architectural idea is conveyed.

Aesthetic reasons when carrying out architectural projects require precision, scale, and clear symbolism of markings. A certain help in decrypting the architect's guiding thought can be colours (a monochrome colour palette, black and white, wide range of colours), thickness of a line, a type of font through which delicate or blunt character of the message is obtained.

Practised standards impose necessary components of architectural drawings such as plans, façades, cross-sections, perspectives, axonometries, and details. For example, there is an indisputable rule that each element which is cut by a cutting plane is represented by a thick line and the background, the view – by an appropriately thinner one. Façades and views of interiors detail the designer's imagination.

The elements of architectural drawing, which were presented in the general outline, were applied in selected examples giving an image of the architectural workshop in the 19<sup>th</sup> and 20<sup>th</sup> centuries. These are projects in the concept phase (which is also the basis for approving the construction plan and the subject of administrative proceedings) as well as inventory drawings. The individual application of rules, which were developed during several centuries, has translated into a different effect of design studies. The adopted drawing convention has been a special effect.

<sup>1</sup> *The camera catches everything that is in front of the lens and therefore in the photo, often among less important details, significantly important characteristics of the landscape are lost and disappear* [7, p. 223].

*Villa Marguerite in Houlgate  
– realization of picturesque*

Villa Marguerite in Houlgate is situated on the French coast and was constructed during the development of seaside stations in the spirit of picturesque and eclecticism. At that time, architects drew inspiration from historical models, oriental exoticism, regionalism, and in particular from the expression of Swiss huts as well as French and English Gothic buildings. The development of architecture in seaside bathing places is convergent with the invention of “regional eclecticism”. Recreational architecture has been looking for its roots in picturesque and ordinariness since the beginning of its existence. Dominant places overlooking the sea were privileged, i.e. at the top of cliffs or rock cornices which made it possible to enjoy the landscape and view. According to the English

influence in the 1860s, villas multiply asymmetry and decomposition in the plan and façade. Great compositional freedom translates into the expression of appearance, especially in the case of residential architecture.

Villa Marguerite is one of the many villas standing in the first row flanking the seaside promenade in Houlgate in the region of Normandy. It was designed by the architect Émile Auburtin in 1876, during a period of fashion for leisure which took advantage of the benefits of water [12]. The resort is famous for its coastal architecture typical of the Belle Époque.

Maurice Daumont made a drawing of the villa in colour lithography. The architect proposed a static composition, a calm palette of colours, giving the impression of restrained moodiness. The motifs of brick and ceramic decorations stand out distinctly against the grey background of the squat roof. In the plan of the villa we can perceive

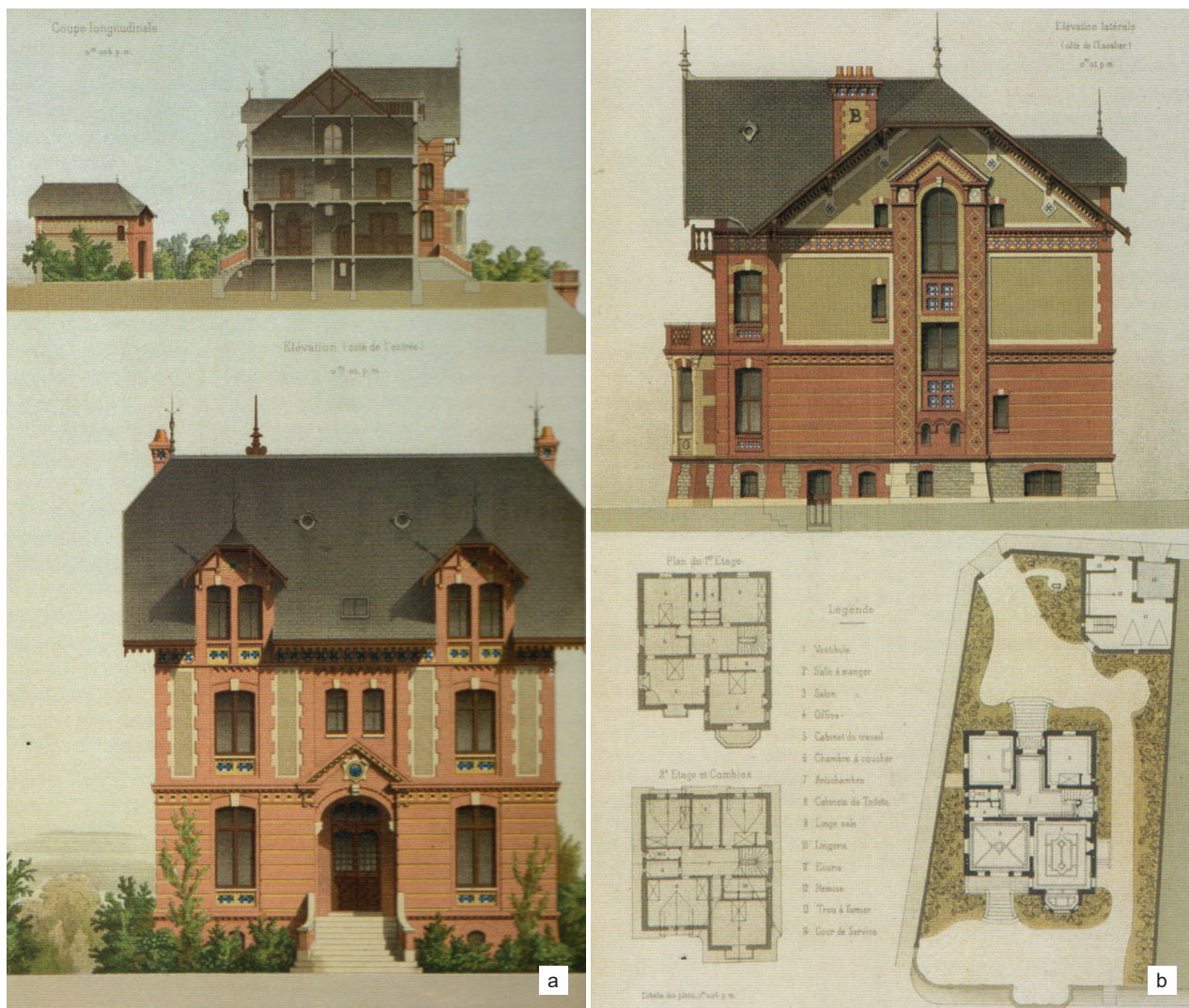


Fig. 1. Villa Marguerite in Houlgate:  
a) northern / entrance façade, longitudinal cross-section,  
b) eastern façade, ground floor and the first floor plans  
(designed by É. Auburtin, drawn by M. Daumont) (source: courtesy of Bibliothèque nationale de France)

Il. 1. Villa Marguerite w Houlgate:  
a) elewacja od strony wejścia do budynku, przekrój podłużny, b) elewacja od strony klatki schodowej oraz rzuty kondygnacji (parter i piętro)  
(projekt: É. Auburtin, rys. M. Daumont) (źródło: dzięki uprzejmości Bibliothèque nationale de France)

private zones (bedrooms – upper floors), representative and utility zones (living room, dining room, office on the elevated ground floor). A subtle drawing of greenery and misty coastal landscape constitute a perfect staging of the place and time as well as they complement the idea of the architectural concept (Fig. 1).

The drawing technique is standard – even exemplary for those times – with a soft emotional and reflective tone. It reflects the characteristics of the era of artists guided by reason as well as artistic power in their works [13, p. 9]. A delicate typeface of the font describing the project imitates calligraphic writing and provides a secondary decorative “texture layer”.

### *Prince Henry's shelter – stylized austerity*

Prince Henry's shelter, which was founded in 1889, majestically crowned the endless space around Kocioł Wielkiego Stawu (the Big Pond Pothole) in the Giant Mountains. The extension and remodelling which took place in the 1930s significantly increased its area. The project of modernization was completed by the Architectural Office of Albert Brothers from Jelenia Góra in 1912 (Karl and Oton Albert became famous for numerous implementations in the Giant Mountains region and also for the concepts of other shelters, i.e., Strzecha Akademicka [Ger. *Hampelbaude*], Szrenica Shelter).

The graphic appearance of the reconstruction project skilfully reflects characteristic features of the architecture of the building and the mountain surroundings – asceticism which interacts with the harshness of nature. The drawing shows a compact body with a gable roof, which is diversified with avant-corps and verandas and integrated into a rocky slope without vegetation, respectively to the sharp

climatic conditions prevailing there (Fig. 2). The storeys with their finely divided planking, stand out against the mosaic of stone blocks of the ground floor and the basement. The façade is organized by a regular arrangement of windows which vary depending on their location and function. In the drawing boards, the materially dissimilar planes of the façades were reconstructed in the shades of one colour, i.e., grey. The contours of individual building elements and chiaroscuro were precisely drawn with a thin black line. The application of this monochromatic drawing technique enriched the artfulness, spatiality, contrast of the image and partly brought the context of the location closer.

Expressive lettering, which was used for the description of the project, brings to mind the ornamentation that was popular during the period of erecting the building, i.e., Art Nouveau. It corresponds with the asymmetry of the composition, abandonment of historicism, and does not interfere with a popular at that time idea of protecting native culture, i.e., a regional tradition.

### *Palace in Burgwindheim – finesse of drawings*

Before World War II, the Faculty of Architecture of the University of Technology in Stuttgart held a high position among German educational institutions. At the University, an important part of studies was the course which was developed by Swiss architect Professor Ernst Fiechter. The aim of the classes was to learn flawless and beautiful construction drawings. A student made sketches of details and existing buildings on site. Personal observation of all individual elements of the work introduced a student to direct contact with knowledge of material science, crafts, and art.

Students dealt with details of valuable buildings only, e.g., buildings with careful stone and carpentry work, i.e.,

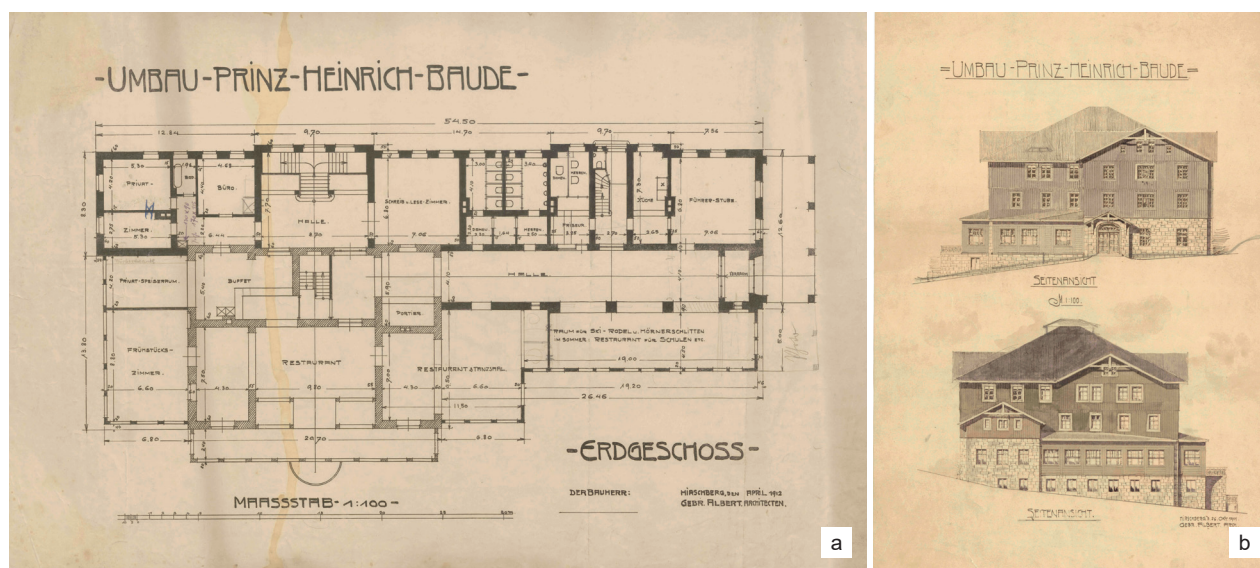


Fig. 2. Prince Henry's shelter – project of remodelling from 1912:

a) ground floor plan, b) western and eastern façades

(designed by Gebrüder Albert Architekten, source: from the collection of the State Archive, Department in Jelenia Góra, ref. 200)

II. 2. Schronisko Księcia Henryka – projekt przebudowy z 1912 r.:

a) rzut parteru, b) elewacja zachodnia i wschodnia (proj. Gebrüder Albert Architekten)

(źródło: ze zbiorów Archiwum Państwowego Oddział w Jeleniej Górze, sygn. 200)

good examples from the artistic and technical aspect. They made measurements and sketches to reproduce façades, floor plans, and cross-sections in the drawing workshop. *It was important that this recording and sketching would take place with adequate diligence and that students would get used to observing the structure to be examined and to presenting it by means of sketches in such a way that they would not only meet the immediate purpose, which is the basis for the further analysis, but also as an aesthetic drawing. In this way, a student was trained for clean and careful work, even at the initial stage, which is often treated marginally* [14, p. 289]. The work was carried out under constant supervision. Drawings were made with a pencil on hard paper and then drawn with ink. The emphasis was put on an unambiguous and realistic presentation, good composition, and beautiful as well as legible lettering. Groups of two or three people were organized to work on a larger building. Drawings of details and smaller buildings were made individually. The effect of study works is presented in the illustration depicting the baroque palace in Burgwindheim, Germany from 1729 (Fig. 3).

### *House in the Alps – rustic motifs*

At the end of the 1930s, Gustav Reutter's houses could be found everywhere in the upper south-western Bavaria. They fit neatly into the varied landscape of the immediate vicinity as well as into the background of the wider surroundings, i.e., the mighty Alps, giving the impression of belonging to the landscape. They were also part of the regional identity popular in the 1<sup>st</sup> half of the 20<sup>th</sup> century, despite the already prevailing fashion for modernism. The splendour of vernacular architecture, traditional forms, and local materials arose from the Genius Loci.

Particular attention was paid to a group of mountain houses with a medium-sloping roof with a wide eaves and a consistent division of the façade. Reutter created the form of a building from the context of the place and the functional requirements of residents, where outdoor life plays an important role. Drawings reflecting visions of the architect seem adequate to the rural atmosphere. They are characterized by a minimum of information, ascetic graphics, a hand-drawn technique of drawings and description,

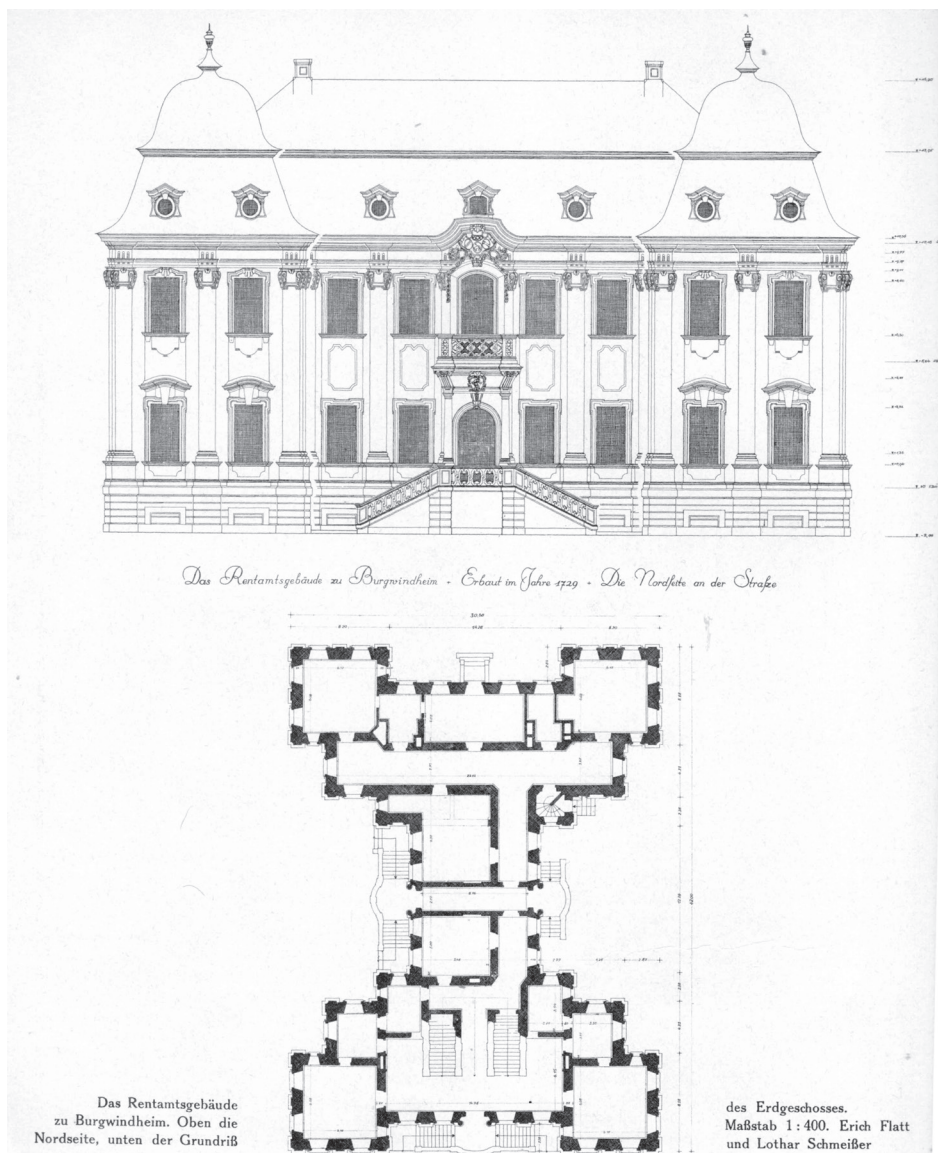


Fig. 3. Palace in Burgwindheim – northern façade and ground floor plan (drawn by E. Flatt and L. Schmeisser) (source: [14, p. 289])

Il. 3. Pałac w Burgwindheim – elewacja północna, rzut parteru (rys. E. Flatt i L. Schmeisser (źródło: [14, s. 289])



Auf dieser Seite und auf der Seite gegenüber Haus B. in Obergrainau bei Garmisch. Risse 1:300

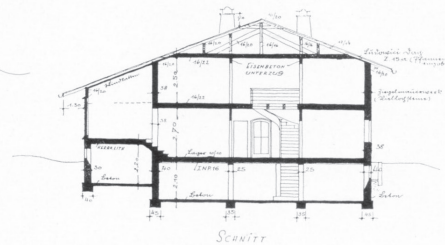
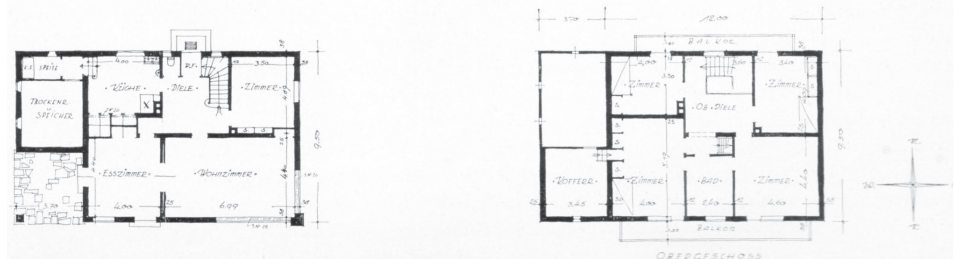


Fig. 4. Residential house in Obergrainau – view, longitudinal cross-section, ground floor and first floor plans, (designed by G. Reutter, drawn by an unknown author) (source: [14, p. 499])

II. 4. Dom mieszkalny w Obergrainau – widok, przekrój podłużny, rzut parteru i piętra (proj. G. Reutter, autor rys. nieznaný) (źródło: [14, s. 499])



the emphasized cross-section in combination with a faint line of secondary markings, light-hearted/semi-humorous application of rustic motifs (stone drawing and description) (Fig. 4).

### Chalet Lang

Architect Denys Pradelle, when designing the house for Georges Lang in Courchevel (Fig. 5), chose a structure hovering above the ground. Despite the unfavourable terrain (steep slopes with north-eastern orientation), he obtained delightful views of the mountains and access to southern sunlight. He decided on a mixed construction process which connected a reinforced concrete structure with a prefabricated vertical extension (a wooden frame supported by a metal frame which was attached to a reinforced concrete panel). The residential part with a flat roof was supported by the two pillars supporting the suspended part of the building and by the stone block of the ground floor which housed a garage and technical rooms. The building

from 1950 reflects the modernist search for the simplicity of form, functionality, and integration with nature. The designer's ambition was to build in oneness with a place where the mountains would dominate, but would also serve as an inspiration to develop a different style of building.

A new type of architecture in newly developed ski stations was presented in modern graphics. It is free and even sketchy graphics which is supplemented with ideograms, stylized symbolic drawing of greenery, and topography. The handwritten font often complements the ludic manner of presenting the architectural concept which should evoke exclusively positive and carefree feelings which are here associated with leisure and pleasure.

### School in Göfis – Avant-garde of the 2<sup>nd</sup> half of the 20<sup>th</sup> century

At present, the buildings from the 1950s and 1960s are forgotten. It was a time of dissemination and commercialization of modernism which lost much of its ideological

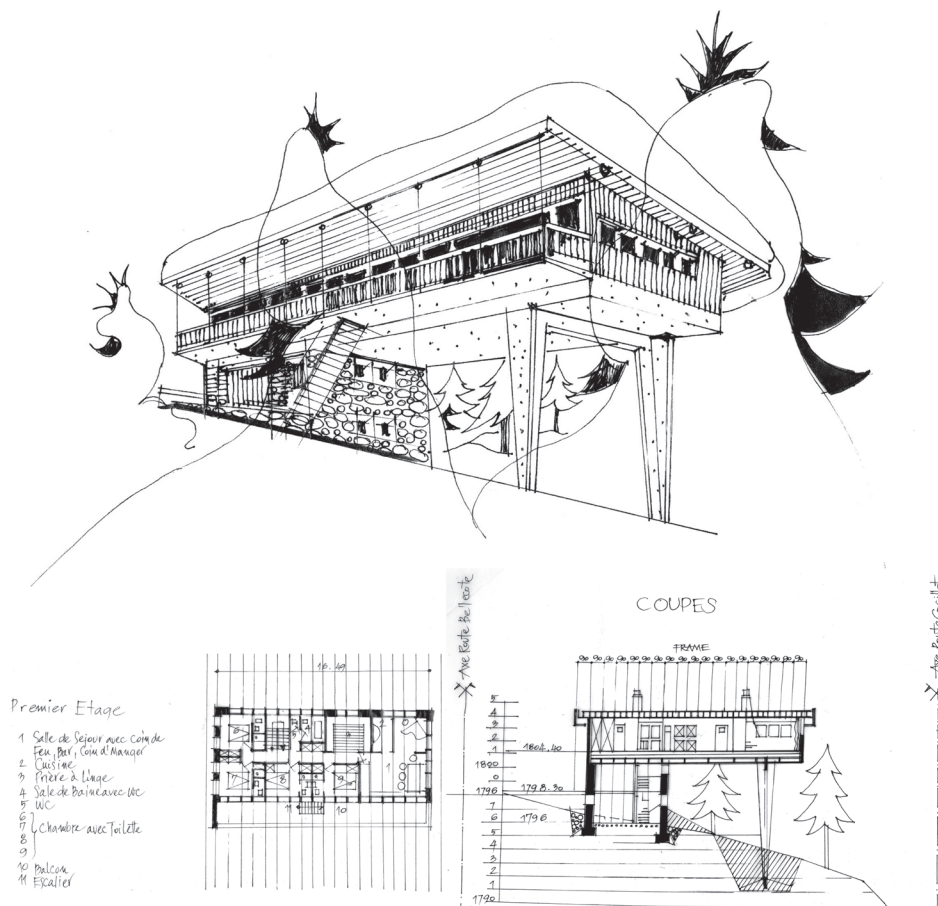


Fig. 5. Chalet Lang in Courchevel: perspective, first floor plan, longitudinal cross-section (designed by D. Pradelle, author of the illustration E. Dessert, drawn by A. Wojtas-Harań on the basis of: [15, p. 162])

Il. 5. Chalet Lang w Courchevel: perspektywa, rzut piętra, przekrój podłużny (proj. D. Pradelle, rys. E. Dessert, przerys A. Wojtas-Harań na podstawie: [15, s. 162])

power [16, p. 10]. However, post-war architecture has been making a comeback in a new light for several years. For example, the presentation of book *Adelheid Gnaiger. 1916–1991: die erste architekthin Vorarlbergs* [17], which describes the creative activity of the first woman architect of Vorarlberg in Austria, was an excuse to look at this architecture with appreciation and interest. What delights in her designs is the extremely natural way of presenting the architectural idea. It is characterized by an informal line dosed with imagination and restraint, lapidary shapes carrying a disproportionate load of information, deliberate carelessness and understatement – under-drawing. What is striking is the individuality of the message realized by, among other things, the use of self-developed handwriting – a showcase or exaggerated angular architectural font, avoidance of template shapes, and a deliberate impression of imprecision. It is worth mentioning that at that time and later, a mannerism of deliberate extension of lines, which gave the effect of a less fabricated product and was nice to look at, was adopted (Fig. 6).

### *Glass skyscraper – time of perspectives*

In the 1990s, the idea of modernism was continued, however, it was treated in a more simplified way. It was permeated by postmodernism which resulted from boredom with modernist aesthetics. Even if a designer was still trying to oscillate in the spirit of modernist values, the way

of presenting a project often went beyond program minimalism. A design of the late modernist glass skyscraper in Wrocław (Fig. 7) uses drawings of greenery, light reflections, shop windows, and decorations – closer to popular imagery, which distracts attention from possible deeper meanings of the architectural idea. The “smooth skin” of the façade constitutes the scenery for situations which are desired by the investor and client. We can see as if the film frame which is captured on the perspective and cross-section of the building. Dynamic perspectives which bring the world of technological fantasy closer became an inherent element of each project.

### *Computer graphics in architectural design*

The turn of the 21<sup>st</sup> century brought the development of technology in computer graphics (Figs. 8, 9). Computer programs made it possible to create abstract images or photorealistic visualizations in various colour and stylistic variants. As before, buildings were designed by architects, but they used a perfect individual graphic design of projects and used template solutions which were automatically suggested by the program. Innovative practice, however, requires adaptation to increasingly newer software versions and hardware needs which generate above-average costs. It can be predicted that in the future, which is likely to happen still in the 3<sup>rd</sup> decade of the 21<sup>st</sup> century, it will be artificial intelligence that will step into the competence re-



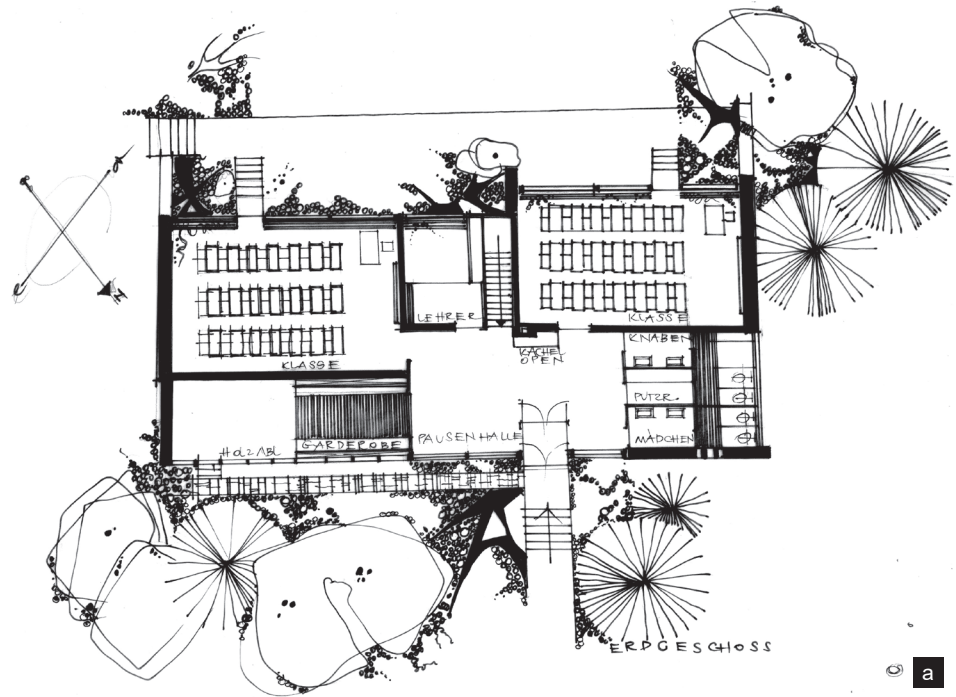
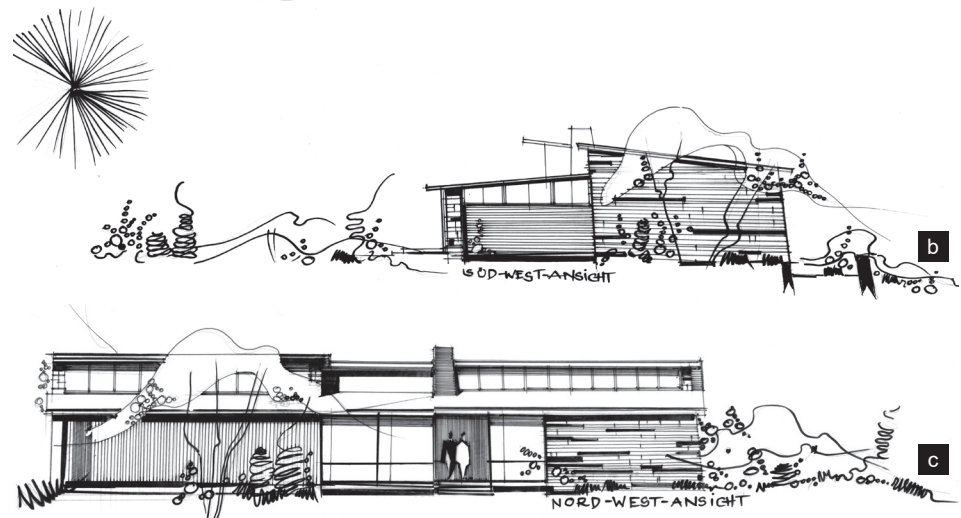


Fig. 6. School in Göfis:  
 a) ground floor plan,  
 b) south-west façade,  
 c) north-west façade  
 (designed by A. Gnaiger,  
 drawn by A. Wojtas-Harań  
 on the basis of: [17])

Il. 6. Szkoła w Göfis:  
 a) rzut parteru,  
 b) elewacja południowo-wschodnia,  
 c) elewacja północno-wschodnia  
 (proj. A. Gnaiger,  
 rys. A. Wojtas-Harań  
 na podstawie: [17])



served for the artist and change the existing rules (cf. [18]). A detailed analysis of this period and these issues is possible in a separate study due to a large scope of the topic.

### Conclusions and summary

With the passage of time, there have been changes in the canons of architectural drawing which became an artistic reflection of the visual culture and dominant ideas. The choice of graphics by the architect was connected not only with the style of the era, but also with the subject of the project, the context of the location, and probably the author's creative identity. The analyses prove the validity of the above thesis, which is in accordance with the axiom about the integrity of the architectural drawing with the creative process.

In the examples of architectural designs presented above, extraordinariness in the drawing message is visible, however, it is marked by the spirit of the times.

A subtle design of Marguerite Villa in Houlgate realizes the features of the picturesque Belle Époque period as well as a residential function which is associated with cheerful sensations and its location in a charming holiday resort on the French coast. The design of Prince Henry's shelter in an austere style specifies more ascetic character of the building in an inaccessible Giant Mountains zone. The creation of the project dates to a period when many aspirations in the artistic sphere converged. There were also tendencies of drawing from traditional local models while reducing decorations. The drawings of Burgwindheim Palace constitute a model of sophisticated work which is focused on reliable reconstruction of the existing buildings from the Bavaria region. The inventory phase probably meant that it was abandoned to show the background of the immediate environment, adopting a formalistic academic narrative. The inventory phase probably resulted in the fact that it was abandoned to show the background of the immediate surroundings and a formalistic academic narrative

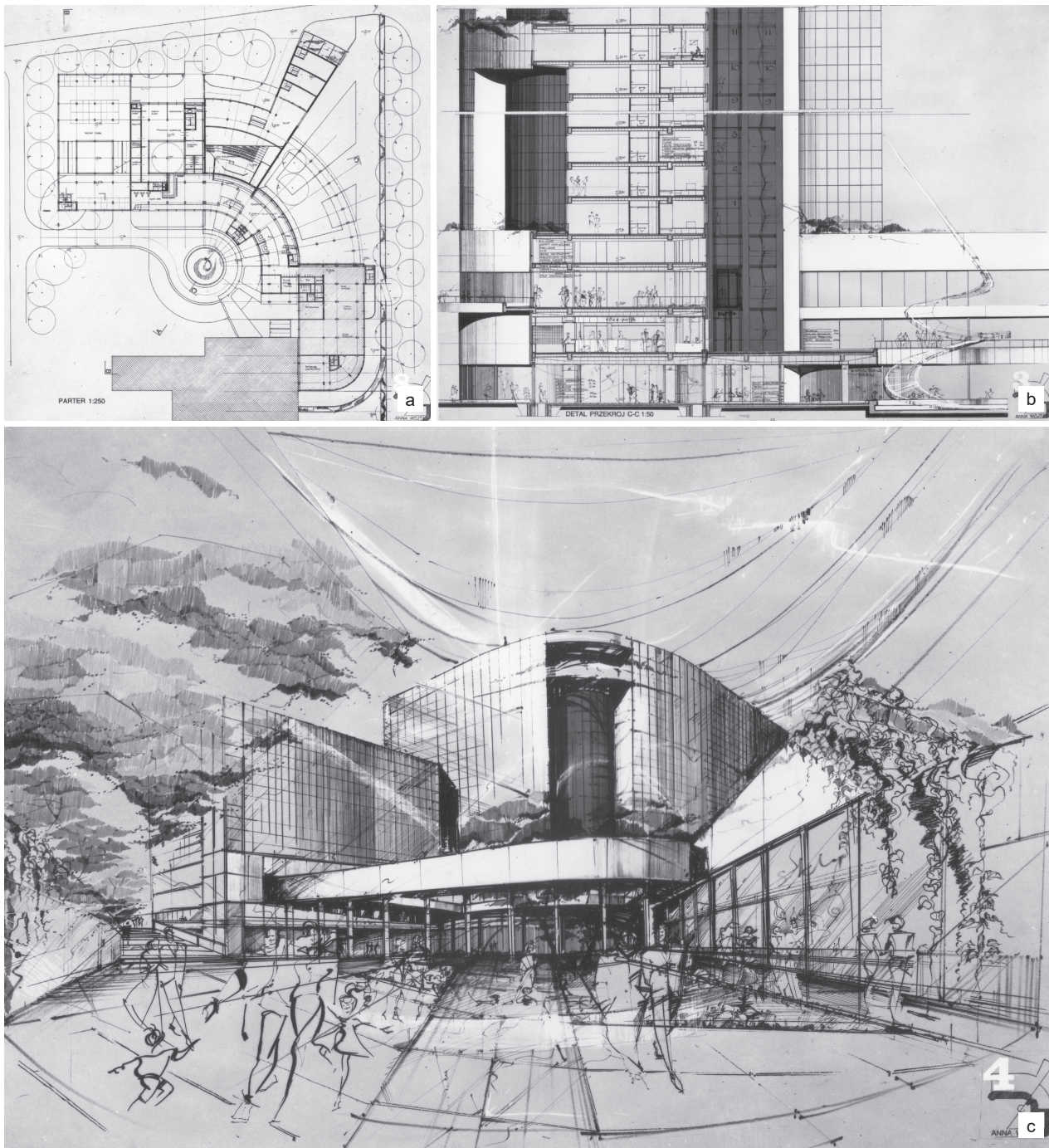


Fig. 7. Hotel in Powstańców Śląskich Street in Wrocław:  
a) ground floor plan, b) longitudinal cross-section, c) perspective (designed and drawn by A. Wojtas-Harań)

Il. 7. Hotel przy ul. Powstańców Śląskich we Wrocławiu:  
a) rzut parteru, b) przekrój podłużny, c) perspektywa (proj. i rys. A. Wojtas-Harań)

was adopted. At the turn of the 20<sup>th</sup> century, in the field of architecture it was postulated to protect cultural traditions and preserve historic buildings (apart from nature protection and cultural traditions). At the Faculty of Architecture of the then Technische Hochschule Stuttgart, this method of designing, which was called Stuttgart school [Stuttgarter Schule], was taught. A traditionalist movement in architecture became an element of a variety of aspirations of the turn of centuries. The rustic character of the Bavarian Alps house designs was part of the trend of the early 20<sup>th</sup>

century, when the timeless quality in architecture was discovered again – *ländlichkeit* (rurality, idyllicity) and was also associated with functionality, neatness, honesty, and identity. The modernist form of the Courchevel mountain house is fused with casual graphics, which perfectly reflects the avant-garde style and phenomenal nature of the French Alps. A similar alternative architectural language was used by a female architect from Volarlberg – a country at the foothills and within borders of the Austrian Alps, who created the scenery of a carefree place and undefined

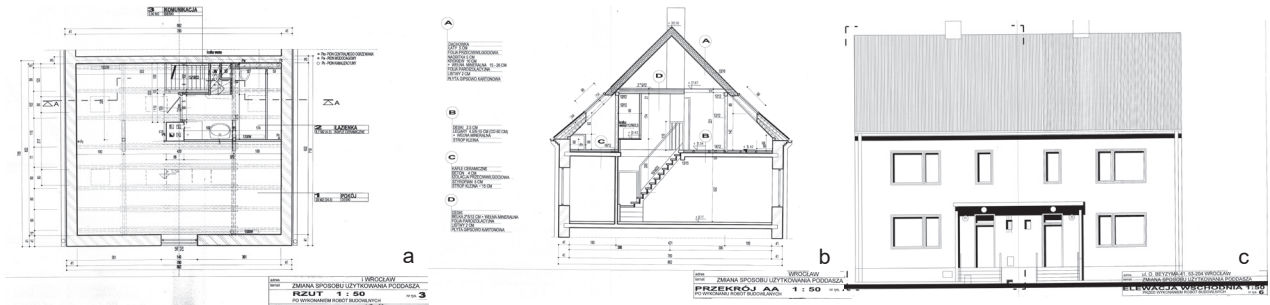


Fig. 8. Adaptive re-use of the attic of a single-family house in Wrocław, which was carried out with the use of a computer program and implemented at the beginning of the 21<sup>st</sup> century:  
a) attic plan, b) longitudinal cross-section, c) eastern façade (designed and drawn by A. Wojtas-Harań)

Il. 8. Projekt zmiany sposobu użytkowania poddasza domu jednorodzinnego we Wrocławiu wykonany z zastosowaniem programu komputerowego, zrealizowany na początku XXI w.:  
a) rzut poddasza, b) przekrój podłużny, c) elewacja wschodnia (proj. i rys. A. Wojtas-Harań)

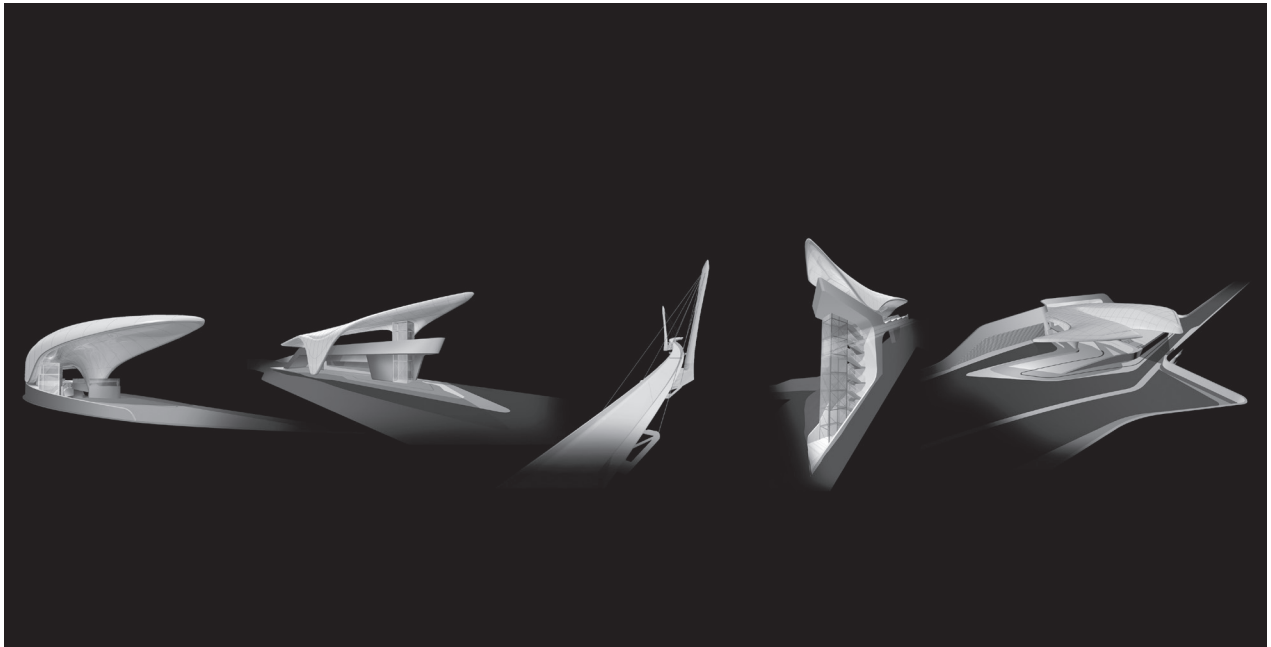


Fig. 9. Computer visualizations of Nordpark Cable Railway in Innsbruck which were implemented at the beginning of the 21<sup>st</sup> century (designed by Zaha Hadid Architects)  
(source: courtesy of Zaha Hadid Architects)

Il. 9. Wizualizacje komputerowe Nordpark Cable Railway w Innsbrucku zrealizowane na początku XXI w.  
(proj. Zaha Hadid Architects)  
(źródło: dzięki uprzejmości Zaha Hadid Architects)

life. The student's design of a hotel in Wrocław from the 2<sup>nd</sup> half of the 20<sup>th</sup> century presents a trend of expressive graphics – the years when sensitivity to the shape and proportions was no longer sufficient and when buildings also became a compilation of the modern and traditional language of forms.

The concise architectural studies presented here, which were created within the limits of rational freedom in the way of transmission of architectural thought, are not inferior to printed designs unified by standards, automated with libraries of signs, obliged by form and volume, often blurring the understanding of the content.

Artistry, craftsmanship, and drawing have always accompanied the architect. Despite the widespread digitization, drawing does exist and is still developing. Young artists create works using freehand drawing. However, this type of drawing is being removed from architectural practice. Drawing presentations require skills. Nowadays, the creation of computer visualizations, animations, virtual and very real graphics also requires no less skill. It would be reasonable not to deny any of the techniques, in particular the ones that have proved to be successful in the past.

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## Streszczenie

### *Rysunek architektoniczny znakiem czasu. Warsztat architekta w XIX i XX w. – retrospekcja*

Tematem artykułu jest rysunek stosowany w pracy architekta. Celem autorki było zwrócenie uwagi na to, jak istotna jest umiejętność przyjęcia odpowiedniego kanonu rysunku architektonicznego dla uzyskania korzystnego przekazu, oraz wykazanie, że w doborze grafiki powinna istnieć dowolność. Autorka skoncentrowała się na prezentacji i analizie projektów architektonicznych wykorzystujących różne konwencje rysunkowe. Projekty pochodzą z XIX i XX w. – okresu, kiedy już obowiązywały reguły zawartości i wyglądu opracowań architektonicznych. Był to też czas, kiedy powszechną praktyką był rysunek architektoniczny wykonywany tradycyjnie, za pośrednictwem kresek stawianych ręcznie na papierze.

Z analizy opracowań architektonicznych wynika, że rysunek architektoniczny w działalności zawodowej architekta jest jej integralną częścią. Przyjęta przez architekta konwencja rysunkowa wynika często z tematu przedsięwzięcia, kontekstu lokalizacji, stylu epoki, osobowości autora.

Powyższa zależność skłania do konstatacji, że prawo wyboru techniki rysunkowej powinno pozostawać w gestii twórcy, z zachowaniem zasad wiedzy technicznej i wypracowanych norm czytelności rysunku.

**Słowa kluczowe:** projekt budowlany, warsztat architektoniczny, rysunek architektoniczny