

# 1. MODERN ARCHITECTURE – PUBLIC BUILDINGS

## 1.1. Introduction

Vitruvius, who lived in the 1<sup>st</sup> century BC, thought that architecture was based on three principles: durability (*Firmitas*), utility (*Utilitas*) and beauty (*Venustas*) (Witruwiusz, 1952). The ancients created their world based on these principles. The contemporary people rediscovered them again only in 1415, when the Florentine humanist Poggio discovered in the library of St. Gallen Monastery in Switzerland the Vitruvian multi-volume treatise entitled “De Architectura” (Witruwiusz, 1952). European architecture was based on a balance between construction, function and form. In the twentieth century the triad was smashed. Le Corbusier, a French architect, urban planner, painter and sculptor – the leading representative of modernism, in his architectural treatises and activities raised the importance of the aesthetics of the building. In his opinion architecture is a play of elementary solids in light (Pevsner, 1980; Giedion, 1968). Extremely different views were voiced by rationalists in the middle of the last century. According to Ergon Eiermann, architecture is the result of a process of reasoning, which has nothing to do with art and arises as a result of economic, construction and functional conditions. The modern neo-modernizers, among them Livo Vachini, Luigi Snozzi, Aurelio Galfetti and Dariusz Kozłowski, think that architecture is a uselessness that arises when we cross the border of banal utility (Basista, 2006; Basista, 2016). By interpreting these views, it must be stated that a building must be useful. Its purpose must be rational. It must be durable and safe for the people in it. At the same time, it must work. Technological solutions are essential. Their standard should be dependent on the purpose of the building, and the technical solutions should enable this building to be ecological (Gyurkovich, 2010; Fabiański & Purchla, 2012). Thus, Vitruvian durability and utility are objective, obvious and necessary, and beauty is a superior value.

Here comes the question, “what is beauty?”. And what buildings are beautiful today? Answers to them, in the era of deconstruction, are not clear. The views of modern philosophers have allowed for parallel functioning of many currents, in case of fine arts a lot of stylistics, and even more, have allowed them to freely mix and

create unknown hybrids (Basista, 2006; Gyurkovich, 2010; Kosiński, 2011). We can describe and interpret periods defined in the history of art which existed in the past. We have tools and knowledge to do this. We are surprised by clashing with modern constructions. We see buildings and we cannot name them. Their position, body, shape, proportions, details and used materials are bewildering. Today, more than ever, they depend on design tools. The emergence of modern architecture without computer would be impossible. The attempt to describe it is a very difficult task. Therefore, the authors in their study decided to reach out to the elements of a building and to chapter the world of structures which were built contemporarily, by work their location in space, building elements and sometimes their intended use.

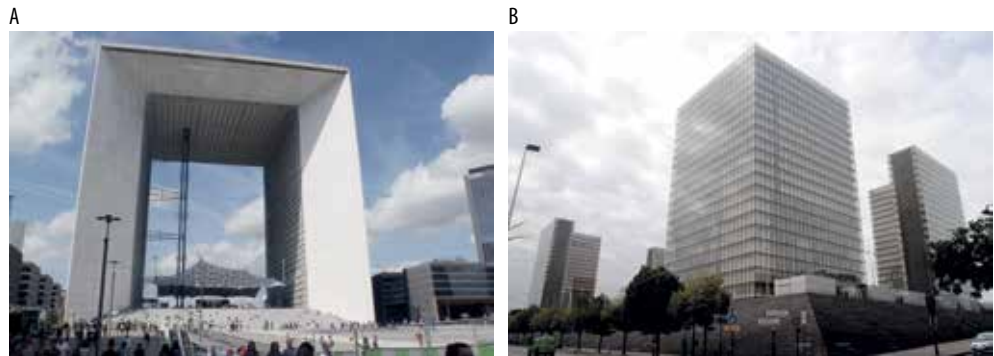
## 1.2. Foundations

Buildings have been permanently linked to the ground since ancient times. Stable basis gave them not only physical support, but also shaped their position. Strong support gave them optical stability, which made them monumental. From the earliest times, pyramids and ziggurats have been treated as a peculiar foundation. Shapes of these buildings evidently result from construction conditions. The weight is transferred to the ground. In ancient Greece the stylobate had already a slightly different role. Superimposed stairs elevated the building up, making it tower over to the surroundings. Medieval buildings were based on strong socles, which in the period of Renaissance (modern) were replaced by massive rusticated. Modern buildings of the industrial revolution era were also permanently linked to the ground, and their statics gave a sense of stability. Also, secessionist and expressive buildings of the early twentieth century, in spite of their waving walls and roofs, we perceive as stable, statically embedded in the ground.

Ideas for such a building, existing in its surroundings, changed in the period of constructivism and modernism. Architects wanted the buildings to break away from the ground. They wanted to design structures raised on columns whose centers of gravity would disturb the balance of solids. By creating the principles of modern architecture, Le Corbusier even advocated the raising of buildings using the so-called *pylons*.

Today, we can observe a number of ideas related to shaping the “foundation of a building” – creating its connection to the ground (Fig. 1.1A-B). They cling to the ground. The Madrid Planetarium rises over the park (Fig. 1.2A) (Garcia Cassas, 2014). This facility perfectly implements Modernist dreams. People move on platforms above the area, which is completely covered by green. Modern realizations are trying to break away from the ground. Former architects’ dreams come true today thanks

to modern technologies. Cantilevers appear in many buildings (Fig. 1.2B) (Herve, 2010).

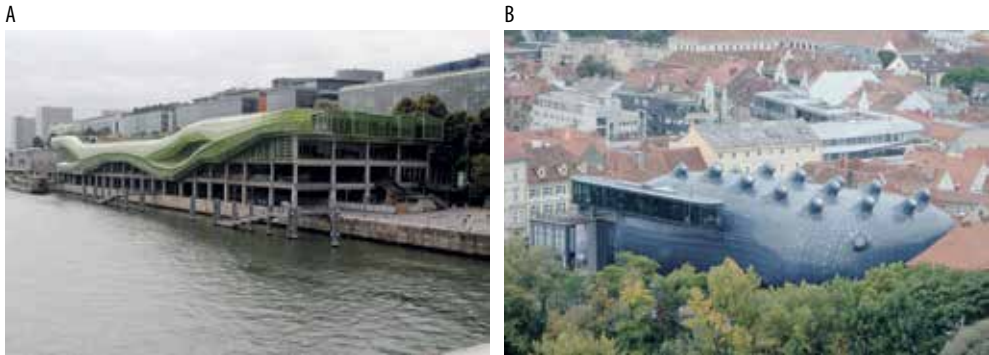


**Fig. 1.1.** Buildings which are stably based on monumental foundations constructed from stairs. A) Grande Arche (La Défense, Paris, France), B) Bibliothèque Nationale de France – Site François-Mitterrand (Paris, France) (Source: photos by M. Kłopotowski)



**Fig. 1.2.** Buildings that look like suspended in space. A) Madrid Planetario Building erected on pillars (Madrid, Spain), B) MAXXI Museo nazionale delle arti del XXI secolo (Rome, Italy), C) Palau de les Arts Reina Sofia (Valencia, Spain), D) EYE Film Museum (Amsterdam, the Netherlands) (Source: photos by M. Kłopotowski)

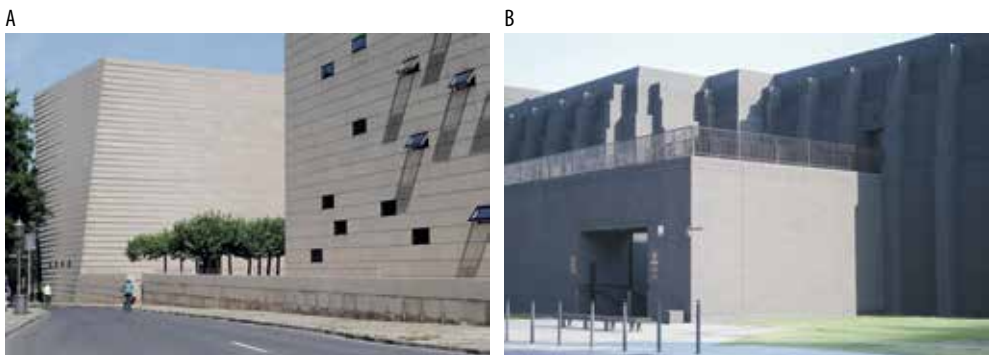
They cover the usable parts of the building or are purely decorative elements. At present, they take on different shapes, from round to polyhedral. Their connection to the ground appears to be at points only (Fig. 1.2C-D). These buildings are powerful structural cantilevers. Today we can also observe buildings located in a completely new space – on the walls and roofs of already existing buildings (Fig. 1.3A-B). The classic foundation does not exist, it is redundant for such structures of the 21<sup>st</sup> century.



**Fig. 1.3.** Buildings “constructed” on existing facilities. A) Les Docks – Cité de la Mode et du Design (Paris, France), B) Kunsthau Graz (Graz, Austria) (Source: photos by M. Kłopotowski)

## 1.3. Walls

The basic building partition is the wall. From the dawn of history, its function has been to divide the interior space and together with the roof shape the place of human refuge. Throughout history, the wall has undergone some kind of modification.





**Fig. 1.4.** Different kinds of walls of contemporary buildings. A) Monumental walls of the synagogue in Dresden (Dresden, Germany), B) Massive, buttressed walls of the Shakespeare Theatre building (Gdańsk, Poland), C) "Fragmented" building of a multiplex cinema in Dresden (Dresden, Germany), D) Defragmented building of the European Solidarity Center (Gdańsk, Poland), E) "Drifting" facade of the new Paris Philharmonic Hall (Paris, France), F) Surfaces wrapped around the solid of the Arcam Culture Center (Amsterdam, The Netherlands), G) Mobile plastic coating on the DR Koncerthuset Concert Hall, Copenhagen, Denmark, H) Visible coatings surrounding the block of the Fondation Louis Vuitton (Paris, France) (Source: photos by M. Kłopotowski)

The oldest of them were completely devoid of openings, more like defense structures. Today we find such solutions in structures which, due to their function or aesthetic concept, are to create an impression of inaccessible or isolated ones. The walls of buildings with “hidden” entrances create an atmosphere of mysterious and unique magic of the place. These solutions work well in sacred buildings (Fig. 1.4A) and cultural structures (Fig. 1.4B).

In many modern constructions the wall can be opened. Its fragments imply the window openings. Shutters serve not so much to cover the window opening but to create a continuous plane of the facade. These solutions are often used in residential buildings, where the authors prefer readability over standard solutions in the housing industry.

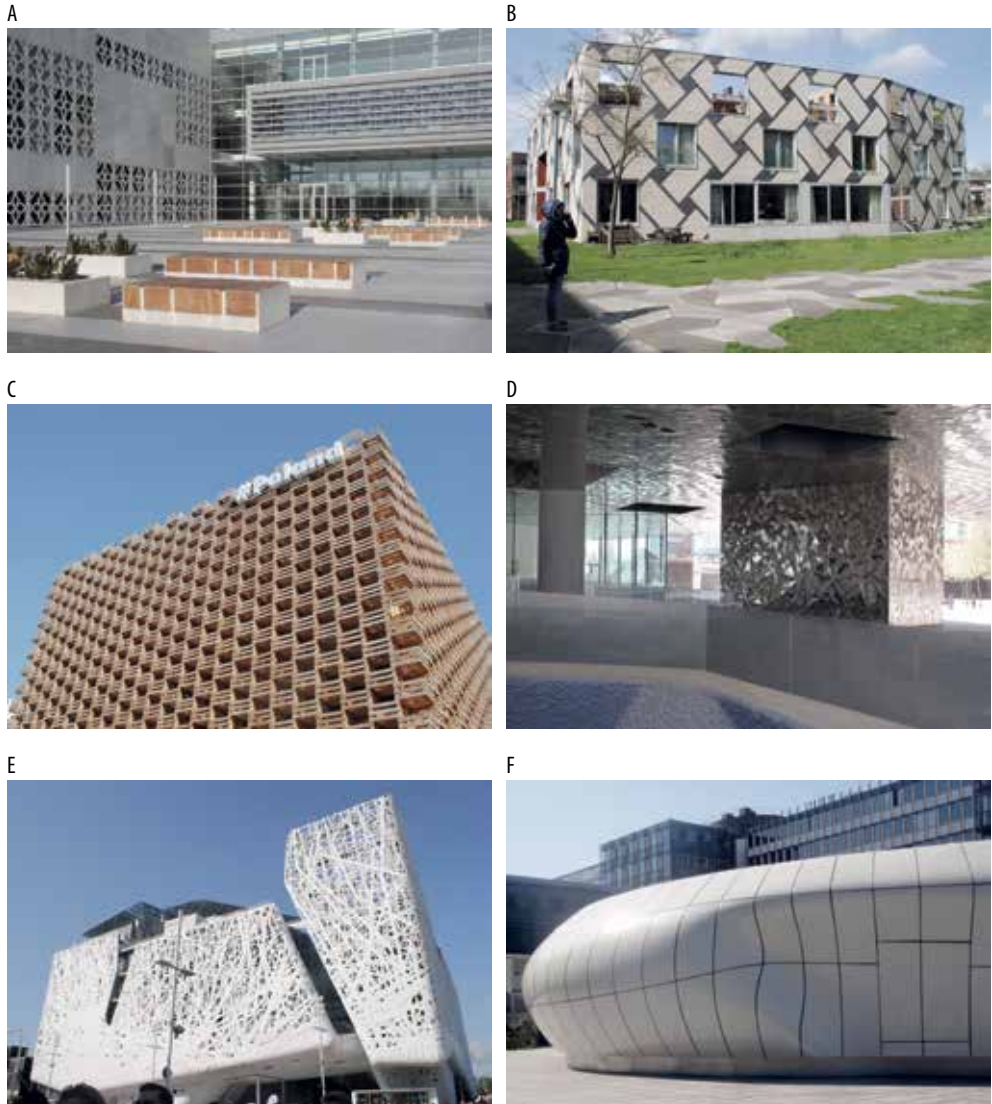
The modern wall, however, does not stick to the classical rules. Architects for decades do not want it to be vertical, continuous, or even to have the shape derived from the familiar geometry. The tools, that allow modern design, allow for the construction of buildings that seem like scattered houses of cards (Fig. 1.4C) or a puzzle from the blocks (Fig. 1.4D). The planes of the walls and solids which are created by them are separated from one another, and when we pass them we begin to worry whether a fragment will not fall on our heads. Their creation was possible thanks to computers. Modern software allows for much more. Today it is possible to model continuous space. The wall can be “bent and stretched”. By grabbing a point on the screen of your computer, you can modify it in any way. The wall is no longer a plane (Fig. 1.4E). Sometimes its boundary is lost and the surface goes smoothly into the roof (Fig. 1.4F). Its implementation requires new skills, construction and building materials.

The classic wall separated the interior from the outside. It was the ultimate frontier of the building. Today’s realizations become quite different. Structures are surrounded by the other “skin”. Layers are made at the appropriate distance to the walls of the buildings. The space between them is a new kind of interior, as if it was a contemporary arbour coating the structure. Layers can change the shape of a building (Fig. 1.4G). “New” walls are completely useless from the practical point of view. They are purely decorative (Fig. 1.4H).

In the past, the final appearance of the wall was related to its location. The walls of the building were erected from natural local materials. The development of modernism popularized concrete. In the twentieth century, it replaced traditional brick and stone facades. Today, the development of new building materials technology gives a much broader scope. Modern architects frequently resort to classic building materials but use them in a modified manner.

Heavy concrete is used as a material that can be treated as a specific sculptural material. On the facades of the buildings, as in modernist designs, reliefs are pressed, and concrete prefabricates are used to create graphical mosaics (Fig. 1.5A). This

plastic construction material is also used in the construction of rounded surfaces. Similarly, traditional stone is used (Fig. 1.4A, 1.19B).



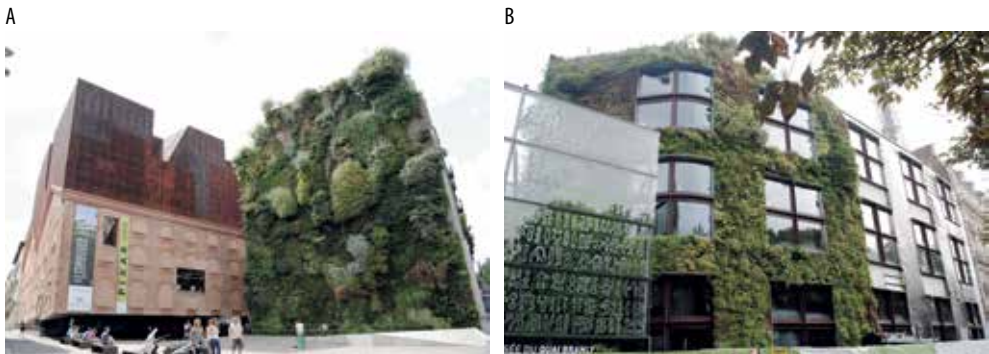
**Fig. 1.5.** Different building materials on the facades of contemporary buildings. A) Concrete on the elevation of the Center of Modern Education of Białystok University of Technology (Białystok, Poland), B) Bricks on the facade of one of the residential buildings in the Funenpark Housing Estate (Amsterdam, The Netherlands), C) Wooden elevation of the Polish Pavilion from the World Exposition EXPO 2015 (Milan, Italy) D) Metal walls and ceilings in the building of Museu Blau-Museum de Ciències Naturals (Barcelona, Spain), E) Plastic facade of the Italian pavilion from the World Exposition EXPO 2015 (Milan, Italy), F) Exhibition Pavilion of Zaha Hadid (Paris, France) (Source: photos by M. Kłopotowski)

The brick, which has always been exposed by using its color and pattern resulting from the arrangement of individual bricks and their layers, is also in use today. Architects “play with” its texture and color. Contemporary designs, however, differ from classical aesthetics (Fig. 1.5B).

The walls of modern buildings are also made of natural materials such as wood or reed. Designers go back to the standard solutions that show the beauty of natural materials as well as the processed elements (Fig. 1.5C, 1.14B, 1.25A).

Another, frequently used facade material is metal. At present, most often it comes in the form of panels. Designers use a wide range of colors and textures. Metal products are used in the form of plates as well as perforated sheets and nets. The preferred type of metal is a shiny stainless steel (Fig. 1.4E, 1.5D, 1.27) (Gausa et al., 2013) and a rusting cortex (Fig. 1.4D, 1.6A, 1.14A, 1.32). These materials appear on the facades of cheap commercial buildings and prestigious public buildings.

Polymers have been used in construction since the late 1960s. Their application is constantly growing. Nowadays, this material allows to realize previously unreachable forms and textures. Plastics are used as coatings and panels. The advantage of this material is its durability and unlimited possibilities of color and texture (Fig. 1.4G, 1.5E, 1.5F, 1.30, 1.31).



**Fig. 1.6.** Vertical gardens. A) Caixa Forum Madrid (Madrid, Spain), B) Musée du quai Branly – Jacques Chirac (Paris, France) (Source: photos by M. Kłopotowski)

A particular type of contemporary wall is the vertical garden (Fig. 1.6A, 1.6B) (Regas et al., 2010; Herve, 2010). Its tradition dates back to ancient times. However, never before has it enjoyed such popularity as today. Green walls have become fashionable as a pro-ecological element. They are a new type of landscape architecture whose popularity has been rising due to both their aesthetic value and the need to increase the amount of greenery in the modern city. The urban vertical farms are not only



multicolored flowerbeds, but also utility gardens (Fig. 1.7). Realizations of green walls are connected with a number of technological determinants. They involve the construction of the vertical garden, its maintenance and care.



Fig. 1.7. Utility vegetable garden on the elevation of the United States Pavilion from World Exposition EXPO 2015 (Milan, Italy) (Source: photos by M. Kłopotowski)



Fig. 1.8. The Monaco Pavilion from the World Exposition EXPO 2015 constructed of containers and other recycled materials (Milan, Italy) (Source: photos by M. Kłopotowski)

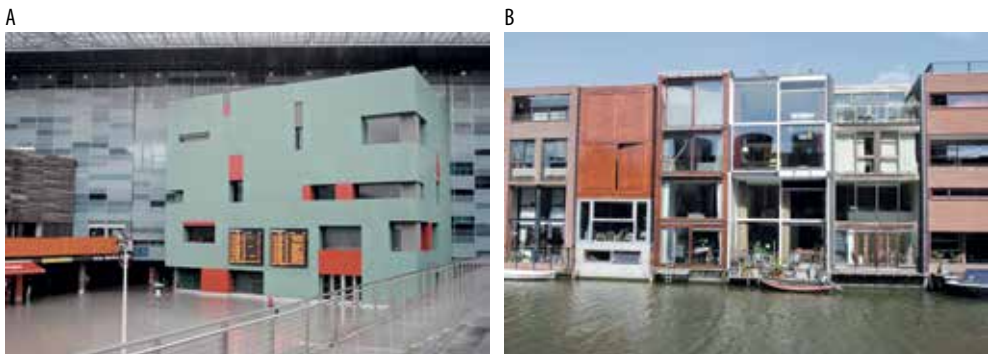
In modern construction business the ideas of sustainable development are readable. Most often, they depict a realization that uses recycled materials. Containers (Fig. 1.8) are the most popular materials in this field. They are modular products that are large enough and yet easy to transport. Thanks to their self-supporting structure, constructing a building from this kind of “prefabricated” elements is fast and energy efficient.

## 1.4. Openings

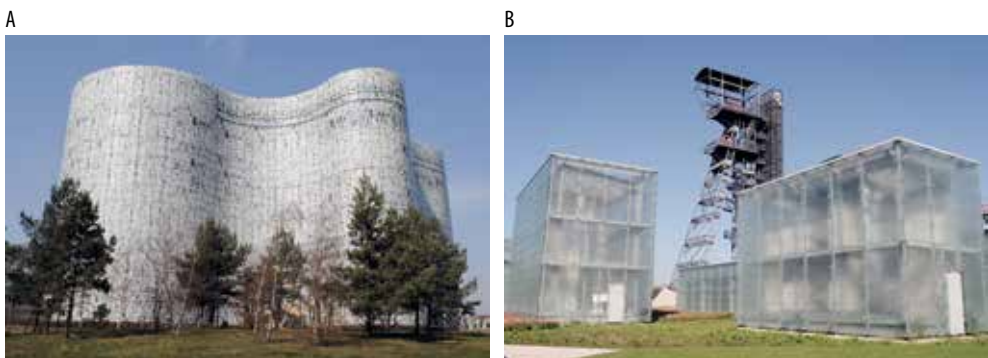
Human functioning inside a building requires room lighting. In the past, the size and shape of window openings was dependent on local conditions and was due to the tradition of the construction site. It was determined by climate conditions. In regions where it is cold and hot, traditional windows are much smaller than in the Mediterranean area. Historically, their size was also associated with technological capabilities, the ability to produce animal stomach membranes and then glass panes. The shape of the window opening has also changed during the course of history. It often gave the building a stylistic character.

Contemporary window opening is usually a rectangle. Modernists began to use vertical and horizontal openings as well as corner windows. In modern buildings,

window openings are often a graphic composition of complementary squares and rectangles (Fig. 1.9A). Nineteenth-century dreams of building glass houses today result in realizations in the area of housing development and public buildings. In the Netherlands, residential houses where windows fill almost the entire facade have been erected. (Fig. 1.9B). Ideologically they refer to traditional, large windows in the tenement houses of the Hanseatic cities. Technological possibilities lead to the use of similar solutions in each climatic zone. In public buildings, glass facades have been used for decades. Interesting solution of the last decades, is the erection of glass walls, which are not to be transparent. Various prints appear on the glass surfaces of such buildings (Fig. 1.10A) or non-translucent glass is used (Fig. 1.10B).



**Fig. 1.9.** Graphics of window openings on elevations of contemporary buildings. A) Facade of the Roma Tiburtina railway station (Rome, Italy), B) Elevations of terraced houses in Borneo East – Dock complex (Amsterdam, the Netherlands) (Source: photos by M. Kłopotowski)



**Fig. 1.10.** Non-translucent glass facades of buildings. A) Prints on facades of Bibliothek KMZ – BTU Cottbus-Senftenberg (Cottbus, Germany), B) Pavilions illuminating the underground interiors of the Silesian Museum made from texture glass (Katowice, Poland) (Source: photos by M. Kłopotowski)

A



B



Fig. 1.11. Windows protected from excessive sun and light. A) Brise-soleils on elevations of Edifici CMT 22 @ (Barcelona, Spain), B) Automatically regulated translucence facade of Institut du Monde Arabe (Paris, France) (Source: photos by M. Kłopotowski)

A



B



C



D



Fig. 1.12. Window openings of non-standard shapes. A) Round windows in the building of the Integrated Student Center of Wrocław University of Technology, Wrocław, Poland), D) Striped windows in the Jüdisches Museum Berlin (Berlin, Germany), C) Irregular window shape in the Copernicus Science Center (Warsaw, Poland), D) Windows of different shapes from Tours Aillaud (La Défense, Paris, France) (Source: photos by M. Kłopotowski)

The desire to create glass buildings has repeatedly been in conflict with utility needs. Excess light in such situations is regulated by different types of blinds and curtains (Fig. 1.11A) (Gausa et al., 2013). Particularly noteworthy is the building of the Arab World Institute in Paris, where each window opening is a specific mechanism, which in its aesthetics refers to the ornamentation of Arabic mashrabiyas (Fig. 1.11B) (Herve, 2010).

Contemporary windows also take different shapes, from geometrically defined lines (Fig. 1.12A) and circles (Fig. 1.12B), through the polygonal forms (Fig. 1.12C) to organic ones (Fig. 1.12D). Their shape is only a consequence of the aesthetic convention adopted by the author (Vidella, 2007).

## 1.5. Columns and beams

In the history of architecture, apart from the wall, one of the longest used building elements indicating the stylistics of the building are the columns and the beam based on them. Their decorations in ancient Greece and Rome uniquely attributed the structure to architectural order. This was taken over by modern architecture. In subsequent epochs, with varying precision and accuracy, reference was made to ancient patterns. Twentieth-century modernism introduced new rules. The column was replaced by a pole and the entablature by a straight beam. Construction elements devoid of architectural details were popularized in the middle of last century. Postmodernism restored decoration in architecture. Bases, columns and heads appeared in the buildings again and their elevations were crowned with ledge. This logic challenged the architecture of deconstruction by introducing free and fluid modeling of space. The form of contemporary columns depends on the architectural design of the building. We come across poles that are not vertical. Their course is diagonal (Fig. 1.13A) or curvilinear (Fig. 1.13B). Heads crowning such supports often become elaborate sculptures (Fig. 1.13C). The spatial assumptions created by these elements create unprecedented openwork structures (Fig. 1.13D), which in their design often refer to organic systems (Fig. 1.13E). Their biomorphic nature often blurs the boundaries between vertical and horizontal elements (Fig. 1.13F) (Regas & Lopez, 2010; Knofel, 2009).

A



B



C



D



E



F



**Fig. 1.13.** Contemporary buildings' structural support (poles) diversified in architectural and static form. A) MAXXI Museo nazionale delle arti del XXI secolo (Rome, Italy), B) Tančící dům (Prague, Czech Republic), C) Jüdisches Museum Berlin (Berlin, Germany), D) Louis Vuitton Fondation (Paris, France), E) Museu de les Ciències de València (Valencia, Spain), F) Exhibition Pavilion of Zaha Hadid (Paris, France) (Source: photos by M. Kłopotowski)

## 1.6. Roofs

A traditional gable roof in modern architecture appears extremely rarely. Most often we encounter it in structures that are inspired by traditional buildings. However, unlike in traditional constructions, such roofs have a deformed geometry and their roofs are covered with the same material from which the walls of the building were made (Fig. 1.14A, 1.14B, 1.15). Compositions consisting of many of these elements begin to shape the new city silhouettes today (Fig. 1.15). In their panoramas there are also rounded forms (Fig. 1.16) (Hubner & Schuler, 2012). Architects are more likely to go for flat roofs, one-sided slopes, or to design multi-walled solids (Fig. 1.17A, 1.17B). The green roofs (see Fig. 1.18A, 1.18B) refer to the past and they are becoming more and more popular as a pro-ecological solution. Large areas of lawns as well as perennial gardens are organized on the surface.

A



B

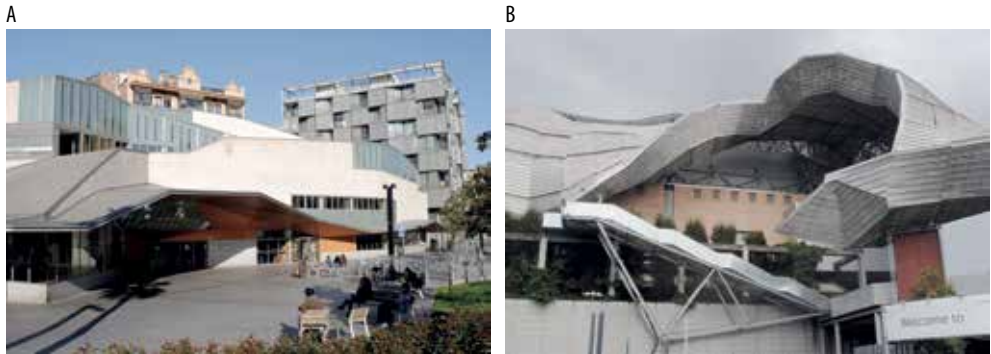


**Fig. 1.14.** Classic gable roofs. A) Museum of Poles Saving Jews during World War II. Museum named after Ulm Family in Markowa (Markowa near Rzeszow, Poland), B) Służew Culture House in Mokotow District (Warsaw, Poland) (Source: photos by M. Kłopotowski)

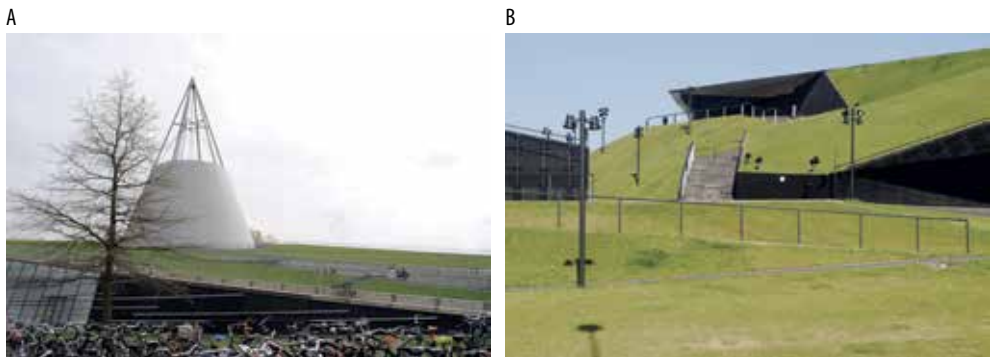


**Fig. 1.15.** The roofs of the Mieczysław Karłowicz Philharmonic Hall in Szczecin refer to medieval tenement houses (Szczecin, Poland) (Source: photo by M. Kłopotowski)

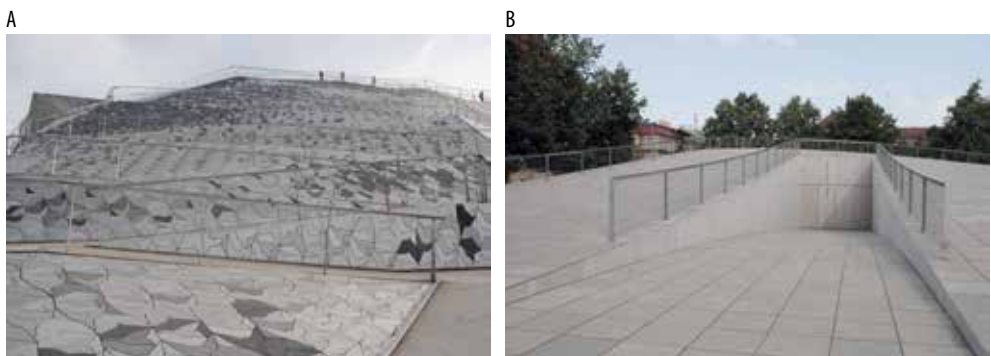
**Fig. 1.16.** Round-shaped roof of Bálna Budapest Mélygarázs (Budapest, Hungary) (Source: photo by M. Kłopotowski)



**Fig. 1.17.** Roofs of modern realizations with dynamic, multifaceted forms. A) Bibloteca Jaume Fuster (Barcelona, Spain), B) MiCo Milano Congressi (Mediolan, Italy) (Source: photos by M. Kłopotowski)



**Fig. 1.18.** Green walking rooftops. A) TU Delft Library (Delft, Netherlands), B) International Congress Center in Katowice (Katowice, Poland) (Source: photos by M. Kłopotowski)



**Fig. 1.19.** A) Ramps leading to the observation deck located at the top of the new Paris Philharmonic Hall (Paris, France), B) The square located on the roof of the underground Dialogue Centre "Upheavals" – National Museum in Szczecin (Szczecin, Poland) (Source: photos by M. Kłopotowski)

Trees and bushes are often planted. A relatively new trend in design is changing the roofing of buildings into viewing platforms (Fig. 1.19A). Increasingly, in new developments we visit not only the building, but also the so-called fifth facade. The roof is more and more often used as a recreational space accompanying the building. In this context, a particular embodiment of the idea is the premises of the National Museum in Szczecin, Poland (Fig. 1.19B). The building is hidden underground and its roof is a public square.

## 1.7. Coverings

Public space which is connected to the street and the city square has begun to change its character since the foundation of Parisian passages in the first half of the 19<sup>th</sup> century. Uncovered spaces gave way to covered areas. Modern technology allows us to build more and more coverings. Increasingly, these are public places. The roofs of the Sony Center complex in Berlin (Fig. 1.20A, 1.20B) and of the Des Halles railway station in Paris (Fig. 1.20C, 1.20D) are among the most spectacular in this area. In both cases the span of the roof reaches several tens of meters (Vidella, 2007; Knofel, 2009).



Fig. 1.20. Canopies on open public spaces. A, B) Sony Center (Berlin, Germany), C, D) Châtelet (Paris, France) (Source: photos by M. Kłopotowski)



The public space of modern cities also closes in shopping centers. Spectacular designs of this type are Gold Terraces in Warsaw (Fig. 1.21). A small city, composed of several streets with pseudo-buildings, is covered with a complicated glass roof.

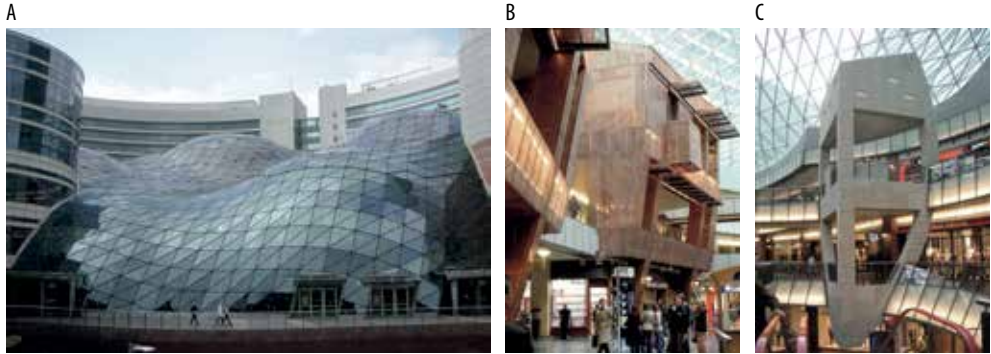


Fig. 1.21. A, B, C) Coverings and Interiors of the Gold Terraces Shopping Center (Warsaw, Poland) (Source: photos by M. Kłopotowski)

## 1.8. The sky

A modern trend is to create such architectural constructions which are “suspended” in spatial openwork forms. Their openwork nature does not protect us from atmospheric agents although we have an impression of being inside. However, it is a unique architectural form that we see against the sky. Giant arbours are found in modern parks (Fig. 1.22A, 1.22B, 1.24, 1.25B), in city squares (Fig. 1.25A), and in the vicinity of public buildings (Fig. 1.22A, 1.22B, 1.23).

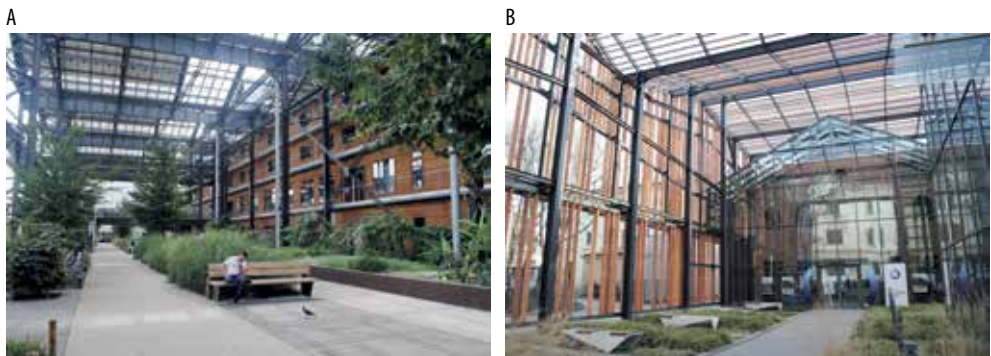


Fig. 1.22. Public gardens located in partially covered spaces. A) Jardins Rosa Luxemburg at Bibliothèque Vaclav Havel (Paris, France), B) Garden at the Małopolska Garden of Arts (Cracow, Poland) (Source: photos by M. Kłopotowski)

At their tops observation decks are often located, so that the surrounding area can be seen from an otherwise inaccessible perspective (Fig. 1.25A, 1.25B). The task of the structure itself is to surprise the observer by the pure fact of its existence.



Fig. 1.23. Covered observation deck at the Militärhistorisches Museum der Bundeswehr (Dresden, Germany) (Source: photos by M. Kłopotowski)



Fig. 1.24. Umbracle in Ciudad de las Artes y las ciencias Valencia (Valencia, Spain) (Source: photos by M. Kłopotowski)



Fig. 1.25. Overground walking paths seen from the ground level. A) Metropol umbrella on the square of la Encarnación in Seville (Sevilla, Spain), B) Viewing tower on the Kienberg hill at the IGA 2017 Exhibition (Berlin, Germany) (Source: photos by M. Kłopotowski)

## 1.9. Surprise

The contemporary architectural object must amaze the recipient. It must have features or elements that we do not expect. And at the same time those that will be expressive and memorable. They may refer to the location of the building (its foundation), its walls or roof, the material used, but also the shape of openings and other architectural details. We can not name and evaluate the architecture of such objects yet. We lack the criteria that we could do this. The variety of creative activities in this area seems to be unlimited (Fig. 1.26-1.32) (Gausa et al., 2013; Garcia Cassas, 2014).



**Fig. 1.26.** Colorful, as if built of blocks, facade of a residential building in the Carabanchel district of Madrid (Madrid, Spain) (Source: photos by M. Kłopotowski)



**Fig. 1.27.** The illusory spatial facade of Museo ABC (Madrid, Spain) (Source: photos by M. Kłopotowski)



**Fig. 1.28.** Inbuilt in the new building, the elevation of a 19th century tenement house with a built over glass facade – Old Brewery Shopping And Art Centre (Poznań, Poland) (Source: photos by M. Kłopotowski.)



**Fig. 1.29.** Surrounded by a stylized metal structure, the building of the French Ministry of Culture (Paris, France) (Source: photos by M. Kłopotowski)

A



B



**Fig. 1.30.** Contemporary forms of canopies over of public space. A) Stedelijk Museum (Amsterdam, The Netherlands), B) Mercat dels Encants (Barcelona, Spain) (Source: photos by M. Kłopotowski)



**Fig. 1.31.** Surprising in its form and material solutions, located in the 22 @ district of Barcelona, Cibernarium green office building – in 2011 the edifice was recognized by international experts as the best building in the world – (Barcelona, Spain) (Source: photos by M. Kłopotowski)



**Fig. 1.32.** Surprising form of the presbytery wall of Parroquia de Santa Mónica in Rivas Vaciamadrid near Madrid (Rivas Vaciamadrid, Spain) (Source: photos by M. Kłopotowski)

## 1.10. Summary

Architecture is an area of art which, due to its public character, has always interacted with the recipient. It happens also today. Contemporary architects create modern constructions. When we look at them, we create an image of contemporariness. This process is continuous. We cannot say whether the icons of the architecture of our time have already arisen, whether the existing stylistic trends will continue to develop or, on the contrary, they will disappear. But we can be sure that new, even more “weird” structures will be created soon. Surely the inspiration for their creation will be the new civilization achievements of mankind.

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