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FACADES – A MAGNIFICENT FALSEHOOD OF ARCHITECTURE

FASADA – WSPANIAŁY FAŁSZ ARCHITEKTURY

Abstract

Thought, matter and place are the three words which define architecture. Among them, thought and matter are the keywords for the conception of façade, which as a so-called dress, shows the idea of an architect and at the same time it is the partition which either allows or prevents imagining 'the world through the looking glass', that is, the structure of the building. Modern technique and technology of constructing allow for almost complete separation of shaping the structure of the building and the façade – shielding wall. The concept of the building shows how much the façade is the result of:

- designing process regarded as a whole, or
- independent decisions related to functions and structure and the project of façade/ housing.

It is observed in many contemporary buildings, especially those from 'the high shelf'. Searches related to architectural materiality associated with the modern concept of façade may be called the *new enjoyment of material*, yet we may as well talk about façade as a magnificent falsehood of architecture.

Keywords: architectural design, facades, truth in architecture

Streszczenie

Myśl, materia i miejsce, trzy słowa, które definiują architekturę, z czego myśl i materia są kluczowe dla konceptu fasady, która jak przysłowiowa sukienka, ukazując myśl architekta, równocześnie jest przegrodą, która nie pozwala lub pozwala wyobrazić sobie „świat z drugiej strony lustra” – czyli strukturę budynku. Współczesna technika i technologia budowania pozwalają na niemal całkowite rozdzielenie kształtowania struktury budynku i fasady – ściany osłonowej. Koncept budynku wskazuje, jak dalece fasada jest rezultatem:

- całościowo rozpatrywanego procesu projektowego, lub
- niezależnych decyzji dotyczących funkcji i struktury oraz projektu fasady/obudowy.

Widoczne jest to w wielu współczesnych budynkach, szczególnie tych z „wysokiej półki”. Poszukiwania dotyczące architektonicznej materialności związane ze współczesnym konceptem fasady nazwać można *nową przyjemnością z materiału*, ale równie dobrze możemy mówić o fasadzie jak o wspaniałym fałszu architektury.

Słowa kluczowe: projektowanie architektoniczne, fasady, prawda w architekturze

1. INTRODUCTION

Since the end of 1980s of the twentieth century and beginning of the new Millennium, energy efficiency environment-friendly techniques and technologies have become dominant in the spatial development. In architecture it means the search for man-friendly solutions as well as those enhancing the importance of science. The horizons of the development of technical culture outline creative personalities. Evolution and development related to constant search for novelty, innovative technical, aesthetic and formal solutions are associated with the need for prestige and social acceptance, which is given to the creator by crossing the boundaries and artistic, physical and/or intellectual possibilities.

It is especially visible in the features which we call geometric defiance of the form and new materiality, i.e. the use of atypical materials or materials applied in unusual form. Due to the introduction of digital computer technique, designing became simpler and so became realisation of complex geometric forms.

The most visible features in architecture are plurality and diversity of attitude towards designing, which is the result of different needs of a changing society as well as the contemporary fusion or interpenetration of various branches both in science and culture.

Even if the architect's idea still is the basic element for the concept in architecture, the tools became as important. The assessment of the quality of architecture lost the feature of applicable rules in favour of universal relativism. The pursuit of astonishment and perfection seem to be more and more common. As Denis Dutton¹ tries to convince us, in the consumptive society a particularly important information is the recognition of the product or the company. In architecture innovation/recognition is often manifested in the solutions of multi-layered shielding walls.²

The search for diversity also results from the desire of an architect, investor to be distinguished or from "the boredom of the designer" as Dariusz Kozłowski says with a little bit of defiance:

Bored may be the recipient, yet it is rather restlessness of a bored artist which is the driving force. The times when the creator mastered his skills for the whole life belong to the past. Nobody is surprised nowadays that a contemporary artist changes his creative attitude many times during his way to perfection or to be more precise – way in search for originality.³

Every day new buildings with astonishing shapes, dominant forms are constructed as well as clearly modest, but original ones which fascinate with architectural concept. Taking into consideration both locational and cultural context of the object, architects have at least three approaches to the relation of idea, contents and context to choose from. Inspiration with the culture of the town or place is in the use of materials related to history and tradition of the place. Another approach is related to inspirations with forms associated to particular culture. These forms may be changed by an architect in the process of creation, however their relation to tradition should be clear. Another attitude is presented by architects who decide to cut off from local traditions by introducing an object which formally differs from its environment, constituting the nucleus of novelty.⁴

¹ D. Dutton, *Instynkt sztuki*, Copernicus Center Press, Kraków 2019.

² J. Świerzawski, *Krzywoliniowość w architekturze*, doctoral thesis, Lodz University of Technology, supervisor: Nina Juzwa, 2017.

³ D. Kozłowski, *Architektura i przemijanie*, Czasopismo Techniczne, 2011, vol. 108, no. 4-A/1, p. 208.

⁴ B. Tschumi, *Event Cities 3: Concept vs. Content*, MIT Press, London 2005.

External walls of the building are usually the first elements seen by the observer. They are the basis for assessing the beauty of the object and the way the architect put the building into the architectural and urban context. Thus, facades are the essential element of the building, which affects the economical aspect of its functioning as well as its appearance and reception.

In the essay, attention was focused on buildings located in the urban areas. Examples of industrial objects may be shown. Their form results from technological requirements of industry, however, very often in order to create a unique building and at the same time modern one, architects implement advanced technologies and building materials. The reason for this is the marketing function of architecture.

Studies regarding materiality in architecture enable to distinguish main streams in designing elevations:

- Traditionalism of material, nowadays may get away from the form traditionally implemented in architecture, yet still remaining the matter deriving from historic record of the used material;
- Transparency and transience of the image leads to the creation of impression of levity of the building or blending into the surrounding landscape;
- Multilayering of the modern shielding wall is based on implementation of 'additional' functions to the external wall.

TRADITIONALISM OF MATERIAL shows diversity when the matter is used in a formally innovative way. Stone cladding, the material which has always been implemented in architecture, made up the beauty of EXPO pavilion in 1930 by Mies van der Rohe. Nowadays stone or brick in architecture do not resemble the matter known from history. Kengo Kuma (2004) implements stone tiles/tablets in the structure of shielding wall of the elevation in the project of residential-service building of Louis Vuitton in Osaka. Thin stone tablets are semi-transparent and let the light into the interior of the building. On the other hand, at night illuminated interior lightens the stone elevation from inside showing the beauty of façade. Herzog and De Meuron created a simple solid building from the so-called gabions placed on top of each other in the Dominus vineyard in California, 1986–1988. The walls from the local stone 'closed' in metal cage perform a double role: they let the light in and at the same time protect from excessive heating of the interior.⁵ Materiality of architecture embeds the building in the local landscape. Such references to the history of the place may affect the value and the recognition of the building, completing marketing function of the brand and product.

The motive of brick was interestingly implemented in the building of Krzysztof Kieślowski Film School at the University of Silesia in Katowice by BAAS Architektura, Grupa5 Architekci, and Maleccy Biuro Projektowe. In the silhouette of the city, the industrial architecture from the late 20th century (including brick), fits into the architectural identity of the city and region. The brick building situated in the neighbourhood of University Library stands out with modesty of form and consequence of materials used. The author's conception from 2011 suggested the use of elements from the historic building resulting in the functional structure turned to the interior of the building plot and elevation, which apart from using fragments of old brick walls, was constructed from ceramic

⁵ N. Juzwa (ed), *Architecture and Urban Planning for Contemporary Industry*, Wydawnictwo Politechniki Śląskiej, Gliwice 2016.

matrices called by the students 'Tv-sets'. The building fitted well into peripheral street of the city. The architecture of Malopolski Garden of Art designed by Ingarden & Ewy Architekci may be interpreted in the similar way. The building is the extension for Juliusz Słowacki Theatre and Provincial Public Library. It comprises two rooms for 300 and 80 spectators and the space of the library is filled with media library of art. The building is located among the 20th-century buildings. A modern building was constructed, which resembles a huge summer house with veranda in the centre of the city. Architecture blurs the boundaries between interior and the environment, however, with closer inspection it becomes obvious that city 'envelope' or 'skin' of the building do not create a home, they only make the edge of the 'secret garden' hidden in the city tissue. During the first visit the recipients get the impression of crossing the boundaries of the garden where the culture, just like plants, is cultivated. The façade consists of ceramic vertical lamellas through which the "broken" cornices pass. Despite the atypical geometry, the façade and the parapets of the building it touches, are the same height.⁶ Architecture seems to be the blend of new technology with nostalgic atmosphere of a small town, also Kraków and its artistic bohemia in the times of Modernism.

The building of CKK *JORDANKI*, designed by Fernando Menis, is located in close neighbourhood of the Old Town in Toruń, which was added to the UNESCO⁷ World Heritage List, is visited by over 2 million of tourists every year.⁸ In order to enrich the cultural offer in 2008, an international contest on the project of a concert hall was announced. The Concert Hall was completed in 2015. The object is an irregular wall configuration form which recalls an image of rock or stone. The architects assumed that the building does not interfere with the green ring which surrounds the Old Town. As Fernando Menis recalls: "the actions we proposed in our contest work are the elements sunk in this green zone, constituting so to say islands inside it."⁹ The body of the building is made up of concrete. The mixture of concrete and brick or stone called Picado was also employed. The scale of the building is adjusted to the protected, historic housing, leaving enough room for public space around it. Acoustic properties together with adding the building to the context was appreciated in 2015 when the building was awarded by SARP in category of public utility – the building of culture.

TRANSPARENCY, TRANSCIENCE OF IMAGE in contemporary searches lead to the impression of levity and/or creation of illusion, weightlessness of the building and some-

⁶ N. Juzwa, K. Ujma-Wąsowicz, A. Gil, *Almost Human Architecture. Examples of Polish Architecture where the Human Factor Co-Creates the Concept of The Buildings*, Procedia Manufacturing, 2015, vol. 3, pp. 1660–1667 (Proceedings of the 6th International Conference on Applied Human Factors and Ergonomics 2015 and the Affiliated Conferences. AHFE 2015, Las Vegas, USA, 26–30 July, 2015).

⁷ *Toruń w zeszłym roku odwiedziło aż 2,35 mln turystów* [in:] Wyborcza.pl, 2.04.2019, <http://torun.wyborcza.pl/torun/7,48723,24699545,torun-odwiedzilo-w-zeszlym-roku-az-2-mln-turystow.html> (access: 4.03.2020).

⁸ Fernand Menis interviewed by Joanna Oleksak, *Architektura i Biznes*, 2009, no. 10, p. 80.

⁹ For the first time F. Menis used this material at the Magma Art & Congress facility (Tenerife, Canary Islands, 2005), mixing concrete with local volcanic stones. For CKK Jordanki, this technique has been developed and certified by, among others, the Polish Building Research Institute. <http://menis.es/en/portfolio/centro-de-cultura-y-congresos-ckk-jordanki/>

times impression of unity of architecture with surrounding landscape. Transparency is generally associated with glass, nowadays it may refer to a different material, which shows the above-mentioned features.

A small glass cube of the Apple Store is situated in New York on one of the busiest crossroads – Columbus Square and Fifth Avenue. The interior of this glass box surprises with the lack of functions. It is only a cover for the empty space with a glass lift and winding glass staircase. The actual shop is located below the glass cube and the glass cage standing at the foot of the Mercedes office building expresses the delicacy of contemporary technique which implements glass in architecture. By showing real unreality, the building is the recollection of the ‘cat’s smile’ from *Alice in Wonderland*....and at the same time is the presentation of the highest level glass technology as well as architecture in duty of marketing for commercial giant.

In 1999, Dominique Perrault designed the factory and headquarters of Velcro fasteners producer in Le Cellier-sur-Loire, France, as a rectangular building with elevation made up of steel panels with mirror surfaces. Panels are placed obliquely to each other reflecting the surrounding landscape. It makes the impression of unreality of this huge monotonous building situated in the area outside the city. This 240 meters long and low building, thanks to material solutions in elevation, makes the form of distinctive character on cloudy days and blends into sunny, surrounding landscape on other days.

The Museum of Silesia designed by Riegler Riewe Architekten was the first building in Katowice Culture Zone. Inspiration came from mining, underground past of the region and wide implementation of the world’s technical achievements. In the Museum, the majority of rooms are located underground, this way creating permanent trace of the work of miners. Above ground, high glass cuboids were raised with entrances and offices. Placing 6,000 m² of exhibition space underground has a symbolic and practical meaning. Bringing associations with the past function of the mine releases the surface area around historic building. Thanks to this, new objects do not cover the buildings which make up *genius loci* of the place.¹⁰

Glass cubicles accompanied by the old mineshaft and revitalised post-mining buildings create a landscape in which history blends with the present times. The view is especially well received at night when the place is better lit by glass cubicles of the Museum. The assumption of the land development was to create a park with loose buildings which preserves the view of the historic building. The mineshaft tower was adapted as an observation tower.

MULTILAYERING apart from its basic function as protecting the interior from environment conditions, multi-layered shielding wall uses material diversity, which provides the needed functionality, for example: multimedia, transparency, energy efficiency.

The warehouse of the Ricola Confectionery (1993) in Mulhouse-Brunstatt in France designed by Herzog and De Meuron may be the example. The building is characterized

¹⁰ L. Jodliński, *Nowe Muzeum Śląskie. Architektura, rewitalizacja terenów postindustrialnych, program wystawienniczy* [in:] I. Kozina (ed.), *Sztuka i przemysł. Paradygmat innowacji – dziedzictwo kulturowe na obszarach przemysłowych Niemiec i Polski*, Muzeum Śląskie, Katowice 2013, pp. 35–47.

by its simple form, the housing made of semi-transparent, polycarbonate panels decorated with ornaments repeated with printed graphics with floral motive.

The warehouse-office building of Tobias Grau company, 1997–2007, BRT Architekten, has a form of a flattened cylinder, unusual in industrial architecture. Elevations are formed by glass, movable panels and photovoltaic chains. Both form and finishing building materials should highlight the new, innovative character of the company and perfection of products.¹¹

The elevation of the Centre for the Meeting of Cultures in Lublin, 2016, designed by Bolesław Stelmach, is a Polish example of city building. Construction of the building also known as ‘Theatre under construction’ lasted for 40 years. In 1971, the idea was born to create a theatre with 3 entertainment halls for 2,300 people. The construction was often discontinued due to financial problems, and so this unfinished construction marked the city centre for decades.

In 2009, Bolesław Stelmach won the competition for creating an architectural-urban conception. The project used constructions of the building which were ready in the following stages of unfinished construction. New solutions implement elements of the old structure. Old, demolition bricks and walls were used. New structures are made of reinforced concrete with different texture of finish which was obtained by manual processing. Glass, vertical laths, which are part of a multimedia elevation, are placed on it. Glass performs a crucial role in architecture of the building. As Bolesław Stelmach says:

The conception of the building presented three layers of different periods of constructing and functioning of the building: Tumulus of Gutenberg in the square outside the entrance refer to the past, multimedia elevations symbolise the present, and hanging gardens on the roofs allow for free/easy permeation of sunlight into the inside of the building and its emission due to gigantic glass screens.¹²

The roof of the building functions as a green public space, highlighted on the elevation by glass passages with a panoramic view of the area.¹³

2. SUMMING-UP – DIVERSITY IN THE AGE OF SPECTACLE¹⁴

The sources of contemporary diversity can be found in the period between 1920–1970, i.e. in times when ideas and attitudes of modern times in architecture were developed. Charles Jencks distinguished six main traditions¹⁵ for this period, which subordinated to social-political conditions disclose relations between architecture and the abilities of technique and technology of construction. The following years, i.e. the period of the 1970s, were the times

¹¹ N. Juzwa (ed.), *op. cit.*

¹² *Centrum Spotkania Kultur w Lublinie* [in:] Architektura.info, https://architektura.info/architektura/polska_i_swiat/centrum_spotkania_kultur_w_lublinie (access: 18.11.2019).

¹³ *Ibidem.*

¹⁴ T. Dyckhoff, *The Age of Spectacle: The Rise and Fall of Iconic Architecture*, Penguin Random House, New York 2017.

¹⁵ C. Jencks, *Ruch nowoczesny w architekturze*, Wydawnictwa Artystyczne i Filmowe, Warszawa 1987.

of subsequent changes in development of thoughts in architecture. It was the time of the development of digitization and computer culture.

At the turn of the 20th and 21st centuries, *the era of spectacle* begins, which is created by architecture of astonishment and difference. Information in architecture previously expressed in the form and permanently integrated with material, for example carved/sculpted in stone, today allows for the use of direct messages.¹⁶ Suitable technical equipment, like: projectors, displays, speakers, are installed into the objects already constructed in order to use elevation as display. Much attention of this approach to architecture is observed in the words of Ewa Węclawowicz-Gyurkovich: "The 21st-century buildings will be perceived as animated objects which seem to control the senses and react to the surroundings."¹⁷

We present two buildings, which represent this contemporary image of architecture.

An example, which creates the image of present times is New York designed by Gehry in 2005–2010, also known as Beekman Tower. Huge apartment building shows a façade which falls into memory. Due to irregular folds of this huge lustrous building, the tower resembles silver tree trunk rather than residential building. Folds visible on the elevation were the result of Frank Gehry's fascination with architecture of Bernini.¹⁸ The drawings of plans and sections, unlike the façade, present solutions which are close to aiming at regularity and ordering of the functional and spacious structure rather than wishing to surprise the spectator. The form of this building is really astonishing.

The building of Philharmonic Hall in Paris, 2007–2015, designed by Jean Nouvel fits into conception of geometric complexity and curvilinearity of form. The building is situated in the neighbourhood of expressive postmodernist and deconstructivist buildings coming from the '80s and '90s of the twentieth century. The building is close to de la Villette Park and the ring road of Paris.

Paris Philharmonic Hall is the building of both complex geometry and materiality. The roof is the public space overlooking Paris. The building consists of lustrous block spiral in form, which is in contrast to angular, dull housing. It is made up of mosaic metal tiles which resemble the silhouette of birds.

Simultaneously, architecture of the building surprises with the neat complicated functional structure of the interior. Concert Hall for 2,400 listeners, due to its technical equipment, may house even 3,500 people. Multiplicity of rooms makes a conglomerate of subordinated functions, creating a neat drawing. For J. Nouvel, the search for difference in architecture of the building is the continuation of drifts introduced in nearby objects and la Villette Park.¹⁹ Huge size and complex geometry lead to the conclusion that these are intellectual considerations rather than 'harmonic' fitting of the building into the urban context.

¹⁶ J. Słyk, *Źródła architektury Informacyjnej*, Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2012, p. 189.

¹⁷ E. Węclawowicz-Gyurkovich, *Architektura najnowsza w historycznym środowisku miast europejskich*, Wydawnictwo Politechniki Krakowskiej, Kraków 2013, p. 198.

¹⁸ Frank Gehry, *A sit-down with the artist of architecture* [in:] The Wall Street Journal, updated April 2, 2011, <https://www.wsj.com/articles/SB10001424052748704474804576222872016570928> (access: 10.2016).

¹⁹ *Harmonies and chords...* [in:] Ateliers Jean Nouvel, <http://www.jeannouvel.com/en/projects/philharmonic-de-paris/> (access: 3.04.2020).

The two buildings, surprisingly different in formal image, fulfil alternative functionality. Each of them is a great astonishment observed mainly in the image and materiality of a façade. Although both are the expression of perfection of functional and spatial structure, they are the expression of author's creativity. They can also be an example of a magnificent falsehood of architecture, in which the façade, like the so-called another side of the looking glass, hides the distinctness and order of the interior's structure.

References

- [1] *Centrum Spotkania Kultur w Lublinie* [in:] Architektura.info, https://architektura.info/architektura/polska_i_swiat/centrum_spotkania_kultur_w_lublinie (access: 18.11.2019).
- [2] *Culture and Congress Centre – CKK Jordanki, Poland* [in:] Fernando Menis, <http://menis.es/en/portfolio/centro-de-cultura-y-congresos-ckk-jordanki/> (access: 4.03.2020).
- [3] Dutton D., *Instynkt sztuki*, Copernicus Center Press, Kraków 2019.
- [4] Dyckhoff T., *The Age of Spectacle: The Rise and Fall of Iconic Architecture*, Penguin Random House, New York 2017.
- [5] *Frank Gehry: A sit-down with the artist of architecture* [in:] The Wall Street Journal, updated April 2, 2011, <https://www.wsj.com/articles/SB10001424052748704474804576222872016570928> (access: 10.2016).
- [6] *Harmonies and chords...* [in:] Ateliers Jean Nouvel, <http://www.jeannouvel.com/en/projects/philharmonie-de-paris/> (access: 3.04.2020).
- [7] Jencks C., *Ruch nowoczesny w architekturze*, Wydawnictwa Artystyczne i Filmowe, Warszawa 1987.
- [8] Jodliński L., *Nowe Muzeum Śląskie. Architektura, rewitalizacja terenów postindustrialnych, program wystawienniczy* [in:] Kozina I. (ed.), *Sztuka i przemysł. Paradygmat innowacji – dziedzictwo kulturowe na obszarach przemysłowych Niemiec i Polski*, Muzeum Śląskie, Katowice 2013.
- [9] Juzwa N. (ed.), *Architecture and Urban Planning for Contemporary Industry*, Wydawnictwo Politechniki Śląskiej, Gliwice 2016.
- [10] Juzwa N., Ujma-Wąsowicz K., Gil A., *Almost Human Architecture. Examples of Polish Architecture where the Human Factor Co-Creates the Concept of The Buildings*, Procedia Manufacturing, 2015, vol. 3, pp. 1660–1667 (Proceedings of the 6th International Conference on Applied Human Factors and Ergonomics 2015 and the Affiliated Conferences. AHFE 2015, Las Vegas, USA, 26–30 July, 2015).
- [11] Kozłowski D., *Architektura i przemijanie*, Czasopismo Techniczne, 2011, vol. 108, no. 4-A/1, pp. 208–216.
- [12] Menis Fernand interviewed by Joanna Oleksak, *Architektura i Biznes*, 2009, no. 10.
- [13] Słyk J., *Źródła architektury informacyjnej*, Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2012.
- [14] Stelmach B., Quotation from *Centrum Spotkania Kultur w Lublinie* [in:] Architektura.info, update: 19.09.2016, architektura.info/architektura/polska_i_swiat/centrum_spotkania_kultur_w_lublinie (access: 2.04.2020).
- [15] Świerzawski J., *Krzywoliniowość w architekturze*, doctoral thesis, Lodz University of Technology, supervisor: Nina Juzwa, 2017.
- [16] *Toruń w zeszłym roku odwiedziło aż 2,35 mln turystów* [in:] Wyborcza.pl, 2.04.2019, <http://torun.wyborcza.pl/torun/7,48723,24699545,torun-odwiedzilo-w-zeslym-roku-az-2-mln-turystow.html> (access: 4.03.2020).
- [17] Tschumi B., *Event Cities 3: Concept vs. Content*, MIT Press, London, 2005.

- [18] Węclawowicz-Gyurkovich E., *Architektura najnowsza w historycznym środowisku miast europejskich*, Wydawnictwo Politechniki Krakowskiej, Kraków 2013.

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